# E-INTERNSHIP MANAGEMENT MODEL FOR ISLAMIC DEVELOPMENT BANK IN SUDIA ARABIA

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# E-Internship Management Model for Islamic Development Bank in Sudia Arabia

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## ABSTRACT

A key factor which makes Web Based Applications (WBA) highly recommended over stand alone system is centralized mechanism used in those applications. Internship Management in Islamic Development Bank (IDB) use variety of systems which are mostly mixture of WBA and some manual procedures. This study would try to enhanced the process of the current management procedures by converting it entirely into a WBA which solved some of the critical issues which were not supported by the current system. The proposed system adopted Extreme Programming (XP) and Rational Unified Process (RUP) methodology in order to fulfill its objectives.

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# CHAPTER ONE

# INTRODUCTION

## 1.1 BACKGROUND

The Islamic Development Bank Group (IDB Group) is a multilateral development financing institution comprising five entities: the Islamic Development Bank (IDB), Islamic Research and Training Institute (IRTI), Islamic Corporation for the Development of the Private Sector (ICD), Islamic Corporation for the Insurance of Investment and Export Credit (ICIEC), and International Islamic Trade Finance Corporation (ITFC).The IDB Group is engaged in a wide range of specialized and integrated activities. (Islamic Development Bank Group In Brief, 2010)

The functions of the Bank are to participate in equity capital and grant loans for productive projects and enterprises besides providing financial assistance to member countries in other forms for economic and social development. The Bank is also required to establish and operate special funds for specific purposes including a fund for assistance to Muslim communities in non-member countries, in addition to setting up trust funds. The Bank is authorized to accept deposits and to mobilize financial resources through Shari'ah compatible modes. It is also charged with the responsibility of assisting in the promotion of foreign trade especially in capital goods, among member countries; providing technical assistance to member countries; and extending training facilities for personnel engaged in development activities in Muslim countries to conform to the Shari'ah.

The purpose of the Bank is to foster the economic development and social progress of member countries and Muslim communities individually as well as jointly in accordance with the principles of Shari'ah i.e., Islamic Law.

Islamic Development Bank is involved in many activities such as:

- Development assistance
- Research and training in Islamic economics and banking
- Technical assistance for capacity building

- Technical cooperation among member countries
- Scholarships for students in member countries and Muslim communities in on-member countries
- Debt relief
- Emergency relief
- Internship Program

The Headquarter of the IDB Group is in Jeddah, Saudi Arabia. It has regional offices in Almaty (Kazakhstan), Kuala Lumpur (Malaysia), Rabat (Morocco) and Dakar (Senegal). The Bank has field representatives in member countries namely: Bangladesh, Guinea, Guinea Bissau, Indonesia, Iran, Libya, Mauritania, Nigeria, Pakistan, Senegal, Sierra Leone, Sudan, and Uzbekistan. The staff of the Bank has grown from 78 in 1975 to 1,014 as at the end of 1429H (28 December 2008). This comprises 533 Professionals, 125 Special category, 289 General and 67 Manual staff. Cumulatively, there are 51 Young Professionals. (Islamic Development Bank Group In Brief, 2010)

Internship Program is an annual program implemented by the IDB (Islamic Development Bank) Human Resource Department, provides students a unique opportunity to obtain a firsthand understanding of how professional consulting firms operate, receive valuable on the job training and experience the dynamics of the business world.

The main aim is to leave a permanent positive idea about the business world in the minds of these fresh graduate, allow them to quick look into the world of the professional firm, look into how the professional employees behave, do their work, the rules required on them by the profession, the honesty, principles and good values they need to sustain and the opportunities which will be present for each of them in the future. Finally, the program is intended to provide students with gainful salaried work experience within a semi-formal educational structure that carries with it official course credit from the universities that student came from. (Islamic Development Bank Group in Brief, 2010)

## 1.2 PROBLEM STATEMENT:

Generally in Islamic Development Bank (IDB), Human resource use variety of systems such as manual application forms and registry books, semi-computerized system which consists of basic MS Office applications such as MS Excel Sheets which are manually manipulated once they are in printouts form.

The current management process consumes time and effort since they do not have a fully computerized system which could make the management process easier and more efficient for both staff and interns.

Thus, this study proposed to overcome this problem with the intention to increase the efficientcy of the IDB Internship Program .Therefore, this study will propose an E-Internship application that will help the IDB staff to utilize the application for their future Internship Program.

## 1.3 RESEARCH QUESTION:

This proposed research will answer the following question:

- How to enhance the current management process in the Internship program in IDB?

## 1.4 RESEARCH OBJECTIVE:

Referring to the question which has been highlighted in the Research Question section, this research proposal will find solution for the problem given above in terms of its objective which is:

- To develop a web-based application that will improve the process of the current Internship Management procedures.

  The processes that need improvement are:

  - Intern registration process.
  - Selecting Department for Intern by HR staff process.
  - Evaluating the intern performance by Supervisor process.

## 1.5 RESEARCH SCOPE:

The suggested project will be focusing on the Internship Management in Islamic Development Bank for Staff and Interns. Since the outcomes and the successfulness are yet to be empirically evaluated, by using questionnaires, the project will be applied on IDB Human Resource department which makes it a perfect test field to evaluate the efficiency of the system.

The proposed system will mainly focus on the following features:

- Developing online application forms.
- Assigning supervisor and expected department to the Interns through online system.
- Evaluating Intern's performance by department supervisor.
- Checking in/out procedures of assigning computers to the Interns through online system.

## 1.6 RESEARCH SIGNIFICANT:

The proposed system will play a significant and an important role in order to enhance the process of the current Internship program in IDB. Unlike the current management system, the new system will facilitate both of the involving parties, staff as well as interns. Therefore, time and effort will be reduced into its minimum by making the registration of the interns process smother and Human Resource staff will manage interns during their time in IDB.

However, as most of the interns will do their internship and leave without the IDB Human Resource knowing if they get full benefit from their internship time, thus, the new system is expected to have a great impact on solving this issue by making each supervisor to do an evaluation review for each intern they supervised.

## 1.7 ORGANIZATION OF THE RESEARCH

This research consists of six chapters; the following contents represent an overview of each chapter in this research:

Chapter one : the first chapter concerns with the introductory to the study overview (Problem statement, Research Question, Research Objective, Research Scope and Research Significant).

Chapter two : represents literature review. Most of the literatures that would be highlighted in this study are part of the web-based technology area. The researcher would try to make comparison between the traditional desktop application and the modern web-based application.

Chapter three : focuses on the methodology used in this project in order to achieve the purposes of the study. The methodology that is used for this research called Extreme Programming and Rational Unified Process. This methodology is consists of four main phases; they are the Inception phase, Elaboration phase, Construction phase and Transition phase.

Chapter four : will mentioned on the site design and development that is based on the proposed system by using the methods described in the third chapter.

Chapter five : This chapter highlighted the evaluation and testing technique which has been implemented in order to evaluate the system. Acceptance test was technique chosen by the researcher in order to validate the functionality of the system features referring to the requirements and the scenarios given by the client. By the end of the chapter we had compelete Model ready.

Chapter six : will contains the conclusion of the study, future work, researcher recommendations, study's limitations and study's contributions.

## 1.8 SUMMARY:

E-Internship Management Model is a Web Based application that will be developed to the Internship Program in Islamic Development Bank. The proposed system objective is to improve the current internship management process. Unlike the current system, the new system will be developed for staff as well as interns in order to minimize effort and time consumption as well as elimination data redundancy. Moreover, the new system will provide effective solutions for some critical issues such as the intern evaluation problem.

# CHAPTER TWO

# LITERATURE REVIEW

## 2.1 INTERDUCTION:

This chapter would cover some literatures which are related to the context of this project. Most of the literatures that would be highlighted in this study are part of the web-based technology area. The researcher would try to make comparison between the traditional desktop application and the modern web-based application. The outcome gained from previous studies would guide and help the researcher to find solutions and support of the undertaking project.

Basically, there would be two main points which the focus will be on. The first part would be a general overview of web-based applications and their advantages over desktop applications. The second section would cover some related works which have been done in the area of E-Internship Management system.

## 2.2 INTERNSHIP:

Internships are defined as voluntary work placements. The students are expected to work on the idea of their project while they are at the university and complete it while they are doing their internship in the industry. Supervision of the project was observed by a work supervisor and a university supervisor. (Elizabeth Levin; Catherine Pocknee; & Gabriella Pretto, 2009)

## 2.3 MANAGEMENT SYSTEM:

Management system is a system that provides information for managing organization information. At the beginning, management system is use to manage organization with the paper base that included planning, implement and controller (Alter, 1996). Then, management system Web Based Applications is use to generate information for control coordination performance and to provide background information to all organization operation including business activity.

## 2.4 DATA MANAGEMENT :

Organizations today operate in a highly global, fast-paced and competitive environment. One of the key resources they need to perform their tasks effectively and efficiently is data management.

Data management is a terminology that usually use for referring to the system, which provide the interface that able to hide specifically physical file operation, hence they can fully concentrate to the data logical.

A database management system (DBMS) consists of system that organizes the storage of data. A DBMS controls the creation, maintenance, and use of the database storage structures of social organizations and of their users. It allows organizations to place control of organization wide database development in the hands of database administrators (DBAs) and other specialists. In large systems, a DBMS allows users and other software to store and retrieve data in a structured way the database approach overcomes most of the problems in manual systems and file based systems. It is intended to meet the informational needs of all users at all department or operational level as well as users at the strategic level (Sulaiman et al., 2008)

## 2.5 WEB-BASED TECHNOLOGY

### 2.5.1 Preview of the Internet

According to Wikipedia, the Internet is a global system of interconnected computer networks that use the standard Internet Protocol Suite (TCP/IP) to serve billions of users worldwide. It is a network of networks that consists of millions of private, public, academic, business, and government networks of local to global scope that are linked by a broad array of electronic and optical networking technologies. The Internet carries a vast array of information resources and services, most notably the inter-linked hypertext documents of the World Wide Web (WWW) and the infrastructure to support electronic mail.

In his book, Kling (1994) stated that the World Wide Web is a distributed information system that is based on a hypertext paradigm and is now regarded as the principle navigational tool for accessing the resources of the internet.

### 2.5.2 Web-Based Application:

According to Luke Wroblewski & Esa M. Rantanen (2001), in software engineering, web applications also known as web-apps are applications that are accessed via a web browser over a network such as the Internet or an intranet. It is also a computer software application that is coded in a browser-supported language (such as HTML, JavaScript, Java, etc.) and reliant on a common web browser to render the application executable.

Research done by Nijaz (2003) concluded that web-based applications are technologies which are increasing day-by-day with real time data accessibility. In addition, he highlighted two points; end-user perspective as main objective and developing web enabled software with the primary aim of providing thinner client side.

### 2.5.3 Overview of Web Based Applications advantages:

The invention of Internet service was a great leap in the world of computer science and information technology. In one of his most interesting articles Graham (2001) had made a comparison between old stand alone or desktop applications and Web-Based Applications in which he showed how these two types of software are pretty similar to the development of the automobile industry;

*"When we look back on the desktop software era, I think we'll marvel at the inconveniences people put up with, just as we marvel now at what early car owners put up with. For the first twenty or thirty years, you had to be a car expert to own a car. But cars were such a big win that lots of people who weren't car experts wanted to have them as well.*
*Computers are in this phase now. When you own a desktop computer, you end up learning a lot more than you wanted to know about what's happening inside it.*
*There is now another way to deliver software that will save users from becoming system administrators. Web-based applications are programs that run on Web servers and use Web*

*pages as the user interface. For the average user this new kind of software will be easier, cheaper, more mobile, more reliable, and often more powerful than desktop software".*

Nowadays, Web-Based Applications (WBA) had become extremely preferable comparing to the classic stand alone applications. The following few points would highlight the most important advantages of WBA over stand alone applications:

- Cross-platform compatibility: unlike stand alone applications which are mostly developed to do certain task in a much specified platform, WBA technologies such Java, .Net family, and many more almost support the most well known Operating Systems (OS).
- Updating: updating WBA versions does not require user involvement unlike the case in standalone applications which require user to do some downloads and installation which might a tedious work to do if the updating of this software is being carried out in large firms.
- Immediacy of access: WBA do not require installation and configuration procedures. As a matter of fact you may only need a valid access/login key in order to manage your own work without any consideration of hardware and software setup.
- Ease of trying: with WBA there should be no problems to run effective test of applications prior getting stuck with full purchase.
- Less memory requirements: The need of the end user's temporary memory is very reasonable comparing to stand alone applications which have heavy load RAM. This is because of WBA mostly relying on the server they are running off memory resources and this would allow users to experience smooth multi-tasking performance.
- Less Bugs: Almost all WBA users work with similar version of the application which makes the process of fixing errors way easier comparing to stand alone applications which their errors is likely hard to be fixed due the different conditions in which they are used at.
- Pricing: Stand alone application would usually require technical support, marketing and distribution strategies which are usually come at high cost. On the other hand, WBA does not need these requirements which makes it most of the time be freely available with some additional features which are promoted as premium services if user interested.
- Data moves online too: With WBA users are granted access to their data from anywhere at any time.

- Multiple concurrent users: Previously users would send screenshots or to split screen to work with each of physical presence is not possible. However, with WBA technologies users might work with each and edit the same document at the same time despite of being in different places.
- Data is safer: hard disk failure and data loss are very common problems of standalone application users even if the user is very careful and store data in a backup disk this wouldn't be an easy job for a regular user no mentioning large firms data. On the other hand, WBA usually come with automated backup service which makes data storage and retrieval from a backup server an easy process.
- Development language flexibility: WBA has the ability to be written in any programming language since they are independent of the OS.

### 2.5.4 Web-Based Application Categories:

In their book Murugesanugn and Ginige (2001), web-based applications are categorized into six categories (Table 1) based on their functionality. This categorizing concept would help developers to understand and identify web-based applications requirements, development and deployment as well.

**Table 1: Web Application Categories**

| Category | Example(s) |
|---|---|
| Informational | Online newspapers, product catalogues, newsletters, manuals, and online books. |
| Interactive | Online forms, customized information presentations, and online games. |
| Transactional | Online (shopping, banking, and reservation) systems. |
| Workflow Oriented | Online inventory management and supply chain management. |
| Collaborative work environment | Distributed systems, and collaborative design tools. |
| Online Communities/ Marketplaces | Discussion groups and online marketplace. |

## 2.6 Related Work

### 2.6.1 Overview of Internship Management Systems:

Application Service Providers (ASP) had introduced varieties of WBA which facilitate Interns management process. Generally, the aim of these types of applications is to manage reports and details related to the internship management. These types of applications would highly reduce time consumption and paper work effort. The growing number of industries which mostly provide internship programs has raised the consideration of developing applications to manage these programs interns. Basically, these applications would help to manage interns application, storing interns data, keeping record of the interns overall performance. Table 2 shows a comparison between two randomly selected Internship management systems features with the proposed E-Internship Management system.

**Table 2: Comparison between Internship Management systems**

| Features/ Models | E-Internship Management System | World Bank Internship System | ICARDA's Internship System |
|---|---|---|---|
| Admission Details | ✔ | ✔ | ✔ |
| Assigning supervisor | ✔ | | |
| Interns Information | ✔ | ✔ | ✔ |
| Evaluating interns performance | ✔ | | ✔ |
| Maintenance | ✔ | ✔ | ✔ |
| Bulletin Board | ✔ | | |

From the previous table we concluded that the most common features which most of Internship management web-based applications provide will:

- Admission Details: Allows management staff to accept and approve applications from interns.
- Assigning Supervisor: Allows management staff to assign supervisor for each intern
- Interns Information: Keeps record of students' details.
- Evaluating interns' performance: it allows the supervisor to evaluate the overall performance of the interns.
- Bulletin Board: A feature to post announcements and events.

Therefore, the proposed system will cover all the basic features which were mostly shared among common Internship management systems. Moreover, E-Internship Management Model will have some additional features such as bulletin board to post announcements and events by the staff.

## 2.7 SUMMARY

The researcher has discussed in this chapter the history and background of web-based applications and their advantages over the traditional desktop applications in general. Furthermore, he also went through some related works and literatures which are expected to have great impact on the way this study should be carried out successfully. At the end of this chapter the researcher has concluded the expected features that would be included in the system which are:

- Admission Details: Allows management staff to accept and approve applications from interns.
- Assigning Supervisor: Allows management staff to assign supervisor for each intern
- Interns Information: Keeps record of students' details.
- Evaluating interns' performance: it allows the supervisor to evaluate the overall performance of the interns.
- Bulletin Board: A feature to post announcements and events.

# CHAPTER THREE

# METHODOLOGY

## 3.1 INTRODUCTION

The adopted methodology to develop the proposed web based application will implement some Object-Oriented (OO) formalities. There are many approaches; however the main focus will be on Rational Unified Process (RUP) in general with the addition of Extreme Programming (XP) in some phases of RUP as well as some classic methodologies which will take place during the Elaboration Phase of the RUP.

RUP is an object-oriented and web-enabled program development methodology. It provides a disciplined approach to assigning tasks and responsibilities within a development organization. Its goal is to ensure the production of high-quality software that meets the needs of its end-users, within a predictable schedule and budget.

The RUP lifecycle is an implementation of the spiral model. It has been created by assembling the content elements into semi-ordered sequences. Consequently the RUP lifecycle is available as a work breakdown structure, which could be customized to address the specific needs of a project.

Therefore, the reason behind combining RUP and XP is in XP the approach tends to concentrate on development based and delivery of very small increments of functionality which makes a very helpful methodology during the Construction phase of the RUP. In addition, XP relies on constant code improvement, user involvement in the development team and pair wise programming.

## 3.2 Rational Unified Process (RUP):

According to Kruchten (1999), The Rational Unified Process (RUP) is an iterative software development process framework created by the Rational Software Corporation, a division of IBM since 2003. RUP is not a single concrete prescriptive process, but rather an adaptable

process framework, intended to be tailored by the development organizations and software project teams that will select the elements of the process that are appropriate for their needs.

The RUP lifecycle organizes the tasks into phases and iterations. Usually a project that implements RUP would have four phases; Inception, Elaboration, Construction, and Transition phase. Figure 1 shows the RUP phases and XP methodologies will be carried out within:

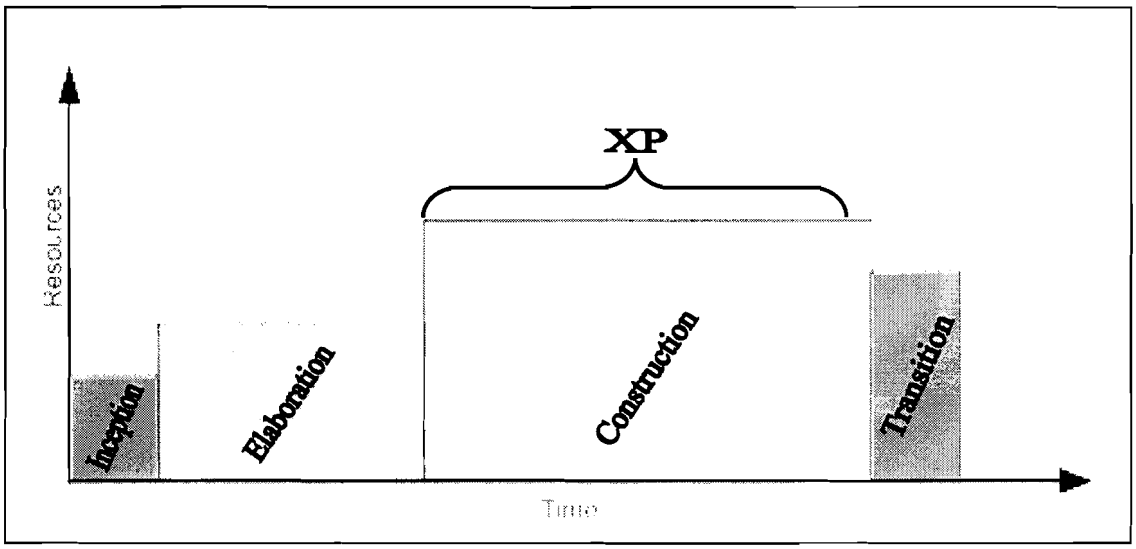


**Figure 1: RUP and XP**

- **Inception phase**

The goal of the inception phase is to establish a project case for the system. In this phase, the information needed for developing the system is gathered. There were a few activities done in this phase like group planning and preparing the project case, defining the scope of the system, gathering some information related to the research are from online resources. The output from this phase is the collection of data and information about the system in other words having clear idea of what the system should look like.

- **Elaboration phase**

The goals of the elaboration phase are to develop an understanding of the problem domain, establish an architectural structure for the system. The important activities were performed as follows:

- Detailing and understanding the user and system requirements:

  The requirements are gathered from the IDB officials.

- List of requirement which is formed from the questionnaire as well as the analysis of the requirements will be shown later in Chapter Four of this document.
- Tools required for development:

  We proposed the following platform for E-Internship Management application development:

| | |
|---|---|
| Front End | Java Server Pages (JSP)/Java Script (JS) |
| RDBMS | MySQL v.5.0 |
| Server OS | Any OS (Java is platform independent) |
| Client OS | Any OS with Internet browser (IE/Fire Fox) |
| Framework | Java |

- **Server Side**
  - Required(Hardware):
    - Intel Pentium III 1.6 GHz (min)
    - 512MB DDR Random Access Memory
    - 10/100 Mbps Ethernet
  - Required(Software):
    - Any Operating System – (Java is platform independent)
    - Apache Tomcat 5

- MySQL v.5.0
- Security Tools (Firewall, antivirus.. etc.)

➢ Required(Software) DURING DEVELOPMENT ONLY:

- Dream Weaver or MS FrontPage.
- MySQL GUI Package
- JCreator Pro

- **Client Side**

➢ Required(Hardware):

- Intel Pentium III 1.6 GHz (min)
- 512MB DDR Random Access Memory
- 10/100 Mbps Ethernet

➢ Required(Software):

- Any Operating System – (Win XP/Vista/7, Mac OS, UNIX...etc)
- Internet browser. (Mozilla Firefox 3.0 or Windows EI 5.5 or above)

The outcome of this phase was the Project Proposal which has been produced earlier.

- **Construction phase**

The construction phase is essentially concerned with system design, programming, and testing. The main objective of this phase is the production of the system. This phase probably will take the longest time comparing to the other phases. Some of the activities which will be carried out during this phase are designing the physical model, writing project source code for the system, system testing and preparing the documentation.

It is important to mention that it is during this phase when XP will be used as a programming methodology in order to make sure that the design and the development of the system meet with the client needs. Additionally, connecting with IDB management throw e-mail would be carried out also during this phase for smoothly, clearly, and understanding what the client needs. The output from this phase is completed E-internship Management Model.

- **Transition phase**

The final phase of the RUP is concerned with moving the system from the development community to the user and making it work in a real environment. The main purpose of this phase is to deploy the system and to train the users.

At the end of this phase the researcher has prepared the following:

- Installation Guidelines
- User Manuals
- Preparing and backing up the system database in order move into the client environment.

(Kruchten, 2004; Ambler, 2002)

## 3.3 EXTREM PROGRAMMING (XP):

According to Jim Highsmith (2000), Extreme Programming (XP) is a software development methodology which is intended to improve software quality and responsiveness to changing customer requirements.

The XP methodology would be carried out throughout the Construction Phase of the RUP in order to allow the developer alter the design and requirement of the system based on the updates and comments given by the users of E-Internship Management Model. The comments are collected from the official's questionnaire. Changing requirements, which is the main advantage of XP, are not preferred by developers, however the outcomes of the process almost perfectly meet with the client satisfaction.

## 3.4 SUMMARY

This chapter explained how the researcher combined the two methodologies of Extreme Programming and Rational Unified Process in order to achieve the objective of the study with this unique combination.

The outcomes of this phase could be summarized into the following:

The combination of RUP and XP had produced the following:

- Inception Phase: Collection of information about the Internship management, in other words having clear idea of what the expected model should look like.
- Elaboration Phase:
  - Preparing List of Requirements
  - Identifying required tools
  - Proposal Document
- Construction Phase: Completed E-Internship Management Model.
- Transition Phase:
  - Installation Guidelines
  - User Manuals
  - Preparing database back up for client environment transmission.

# CHAPTER FOUR

# ANALYSIS, DESIGN AND FINDINGS

## 4.1 INTRODUCTION

This chapter focuses on the steps taken in order achieve the objective of this study, starting with requirements gathering and analysis, system design, and finally producing the artifact.

## 4.2 REQUIREMENTS ANALYSIS

The researcher has conducted several interviews with manager of the hostel, staff, and fellow students. The researcher was able to collect information regarding student registration procedures, some of the difficulties which staff faces during their daily work. Additionally, there were recommendations given by both staff and students in which they addressed some features they are willing to be included in the system. All the information needed are organized into the form of List of Requirements as shown in Tables 3 & 4.

Listed below are the functional requirements and non-functional requirement of the system. In the priority column, the following abbreviations are used:

- M – mandatory requirements (something the system must do)
- D – desirable requirements (something the system preferably should do)
- O– optional requirements (something the system may do)

### 4.2.1. FUNCTIONAL REQUIREMENTS :

**Table 2: List of Functional Requirements**

| No | Requirement ID | Requirement Description | Priority |
|---|---|---|---|
| | **IMM_1000** | **Login** | |
| 1. | IMM_1010 | User can login to system by entering valid username and password | M |
| 2. | IMM_1020 | User can cancel login process | O |
| 3. | IMM_1030 | System should reject wrong user name or password | M |
| | | | |
| | **IMM_2000** | **Manage Profile** | |
| 1. | IMM_2010 | User can update profile | M |
| 2. | IMM_2020 | User can terminate updating profile | O |
| 3. | IMM_2030 | System should be able to detect wrong data type entry | M |
| | | | |
| | **IMM_3000** | **Manage Interns** | |
| 1. | IMM_3010 | Normal registration procedures | M |
| 2. | IMM_3020 | User can cancel registration | O |
| 3. | IMM_3030 | Staff can accept application forms | M |
| 4. | IMM_3040 | Staff can reject application forms | M |
| | | | |
| | **IMM_4000** | **Manage Bulletin Board** | |
| 1. | IMM_4010 | User can post announcement | D |
| 2. | IMM_4020 | User can view announcement | D |

| | | | |
|---|---|---|---|
| 3. | IMM_4030 | User can edit announcement | D |
| 4. | IMM_4040 | User can delete announcement | O |
| | | | |
| 1. | **IMM_5000** | **Check Out/In Computers** | |
| 2. | IMM_5010 | User can do online check in/out for computers procedures | M |
| 3. | IMM_5020 | User can reject check in/out request | O |

### 4.2.2. NON-FUNCTIONAL REQUIREMENTS

**Table 3: List of Non-Functional Requirements**

| No. | Requirement ID | Requirement Description | Priority |
|---|---|---|---|
| 1. | IMM_0010 | Backup Server | O |
| 2. | IMM_0020 | Firewall Security | M |
| 3. | IMM_0030 | High Response Time | D |
| 4. | IMM_0040 | Handling high transactions | D |
| | | | |

## 4.3. SYSTEM DESIGN

### 4.3.1. USE CASE SPECIFICATION

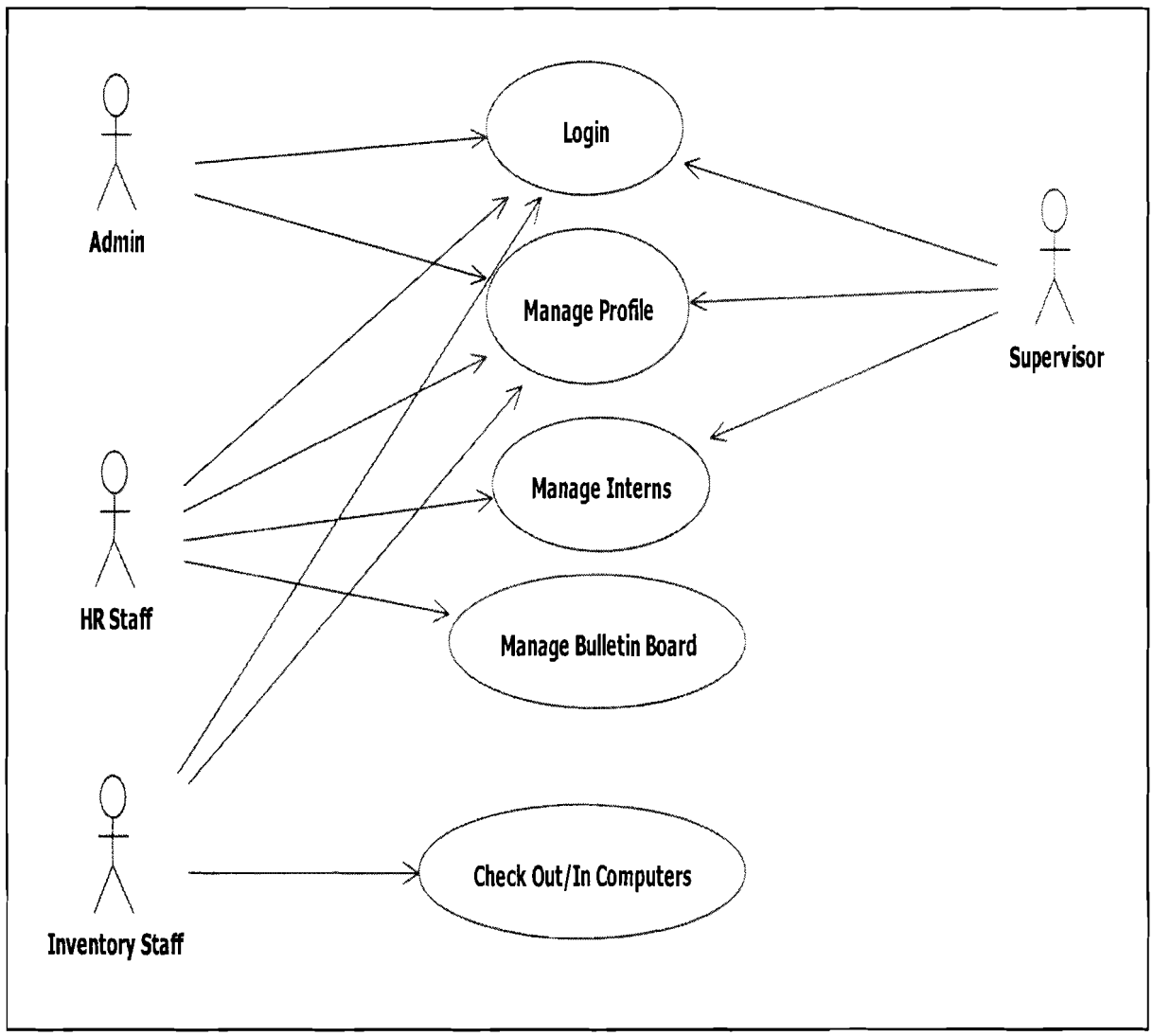


**Figure 1: Main Use Case Diagram**

#### 4.3.1.1. Use Case: Login (IMM_1000)

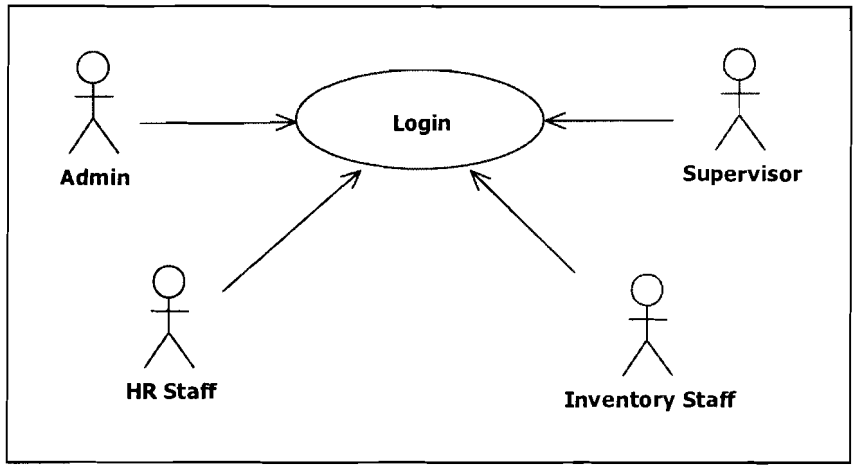


**Figure 2: Login Use Case**

##### 4.3.1.1.1. Brief Description

This use cases is initiated by all users (Admin, HR staff, Inventory Staff and Supervisor). This use case would allow users with valid username/passwords to access the system.

##### 4.3.1.1.2. Pre-Conditions

User must have account in the system

##### 4.3.1.1.3. Characteristic of Activation

Event driven (on Admin, HR staff, Inventory Staff and Supervisor demand)

##### 4.3.1.1.4. Flow of Events

###### 4.3.1.1.4.1. Basic Flow

- This use case begins when user keys in valid username and password
- User press [Login] button. User can terminate login [A-1]
- System would check whether the username and password are valid ones
- If username/password are correct the system would proceed to the next interface. For invalid username/password [E-1]

###### 4.3.1.1.4.2. Alternative Flow

A-1: Terminate login

User can cancel login by pressing [Cancel] button

###### 4.3.1.1.4.3. Exceptional Flow

E-1: Username/password

System will display error message [Wrong username or password] if the username or password are incorrect

#### 4.3.1.1.5. Post Conditions

User is logged into the system and ready to use it

#### 4.3.1.1.6. Constraints

Username/password must be alphanumeric data type

### 4.3.1.2. Use Case: Manage Profile (IMM_2000)

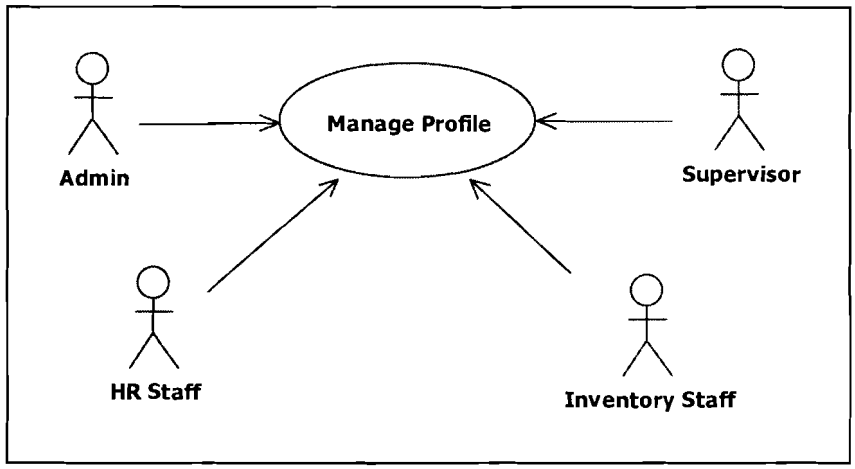


**Figure 4: Manage Profile Use Case**

#### 4.3.1.2.1. Brief Description

This use case is initiated by the admin, HR staff, Inventory staff and supervisor. It shows how the profiles are managed

#### 4.3.1.2.2. Pre-Conditions

User must be logged into the system in order to manage his/her profile

#### 4.3.1.2.3. Characteristic of Activation

Event driven (on Admin, HR staff, Inventory Staff and Supervisor demand)

#### 4.3.1.2.4. Flow of Events

##### 4.3.1.2.4.1. Basic Flow

- This use case begins when the admin key in user ID in order to be updated
- The system would allow the admin to edit the selected user's data

- After the required changes are made click on [Update] button. Else terminated this process [A-1]
- If user keys-in wrong data type in one of the fields, the system should give response [E-1]

**4.3.1.2.4.2. Alternative Flow**

A-1: Terminate Process

User can press [Back] button in order to discard changes and go back to the previous page

**4.3.1.2.4.3. Exceptional Flow**

E-1: Wrong Data Type

System should display error messages like [Phone filed should be in number; e.g. 017000000] if user keys in wrong data type.

**4.3.1.2.5. Post Conditions**

Profile should be updated successfully

**4.3.1.2.6. Constraints**

Admin can manage his/her profile and staff profiles, staff can manage his/her and students' profiles, while students they can only manage their own profiles.

#### 4.3.1.3. Use Case: Manage Interns (IMM_3000)

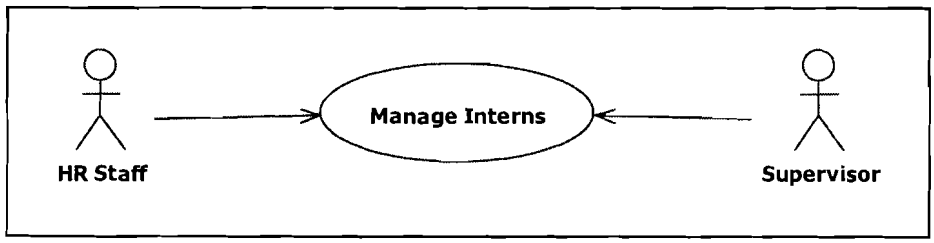


**Figure 5: Manage Interns Use Case**

##### 4.3.1.3.1. Brief Description

This use case is initiated by HR staff and Supervisor when applicant submit an application form, HR staff would approve the application form in order to intern start his internship and assign department that intern will do his/her internship also HR staff can view the intern's performance by the end of their internship period.

Then Supervisor add his/her name as supervisor to the intern by first searching the intern information using the intern's ID number then add his/her name in the supervisor section and after the intern end his/her internship period the supervisor evaluate the intern under his name performance. He/she add that to the system so it can be checked by the HR staff.

##### 4.3.1.3.2. Pre-Conditions

The HR staff and Supervisor must be logged into the system

##### 4.3.1.3.3. Characteristic of Activation

Event driven (on HR staff and Supervisor's demand)

##### 4.3.1.3.4. Flow of Events

###### 4.3.1.3.4.1. Basic Flow

- This use cases begins when applicant goes to the registration page; and then they will fill up the application form then press [Submit], otherwise user can terminate this process [A-1]
- HR staff would [Tick] on *Accepted* and then presses [Save] to accept the intern. Else, intern is rejected [A-2]
- Supervisor search for interns using ID number then add his/her name as supervisor.

#### 4.3.1.3.4.2. Alternative Flow

A-1: Terminate Process

User can press [Back] button in order to discard changes and go back to the previous page

A-1: Rejecting Process

Staff would *NOT* [Tick] on *Accepted* and only presses [Save] to rejected the application

#### 4.3.1.3.4.3. Exceptional Flow

Not Applicable

### 4.3.1.3.5. Post Conditions

Application forum is submitted successfully and intern is either accepted to do internship in IDB or rejected.

### 4.3.1.3.6. Constraints

The seats are limited, therefore its expected to receive complains from applicants in term of seat availability.

## 4.3.1.4. Use Case: Manage Bulletin Board (IMM_4000)

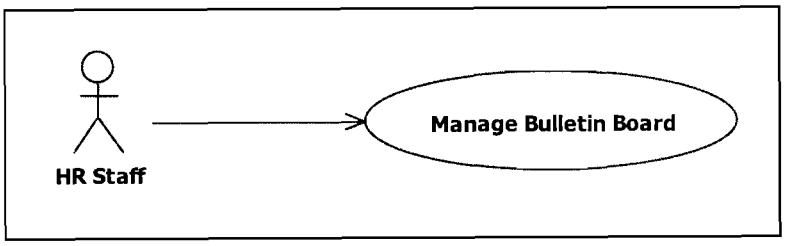


**Figure 6: Manage Bulletin Board Use Case**

### 4.3.1.4.1. Brief Description

This use case is initiated by HR staff. This use case will show how the HR staff makes announcements about hall activities and events

### 4.3.1.4.2. Pre-Conditions

The HR staff must be logged in the system

### 4.3.1.4.3. Characteristic of Activation

Event driven (on HR staff's demand)

### 4.3.1.4.4. Flow of Events

#### 4.3.1.4.4.1. Basic Flow

- This use case begins when HR staff accesses into the bulletin board section
- The user selects one of the available choices; post new announcement, view announcements [A-1], edit announcements [A-2], and delete announcements [A-3]
- User would select new announcement in order to post new announcements
- User would write whatever he/she is willing to announce
- Then press [Submit] button to post the announcements

#### 4.3.1.4.4.2. Alternative Flow

A-1: View Announcements

- User can view list of all announcements
- User selects an announcement by clicking on it in order to view its content

A-2: Edit Announcements

- User can see list of announcements.
- Selects an announcement in order to edit its content.
- Once edited click on re-submit or click on Back to cancel

A-3: Delete Announcements

- User can see list of announcements.
- User selects an announcement to delete.
- User clicks on delete, or Back to cancel deletion process

#### 4.3.1.4.4.3. Exceptional Flow

Not Applicable

### 4.3.1.4.5. Post Conditions

Announcements are managed successfully

### 4.3.1.4.6. Constraints

Announcements are only managed by HR staff, while Interns are only allowed to view it.

#### 4.3.1.5. Use Case: Manage Check in/out Computers (IMM_5000)

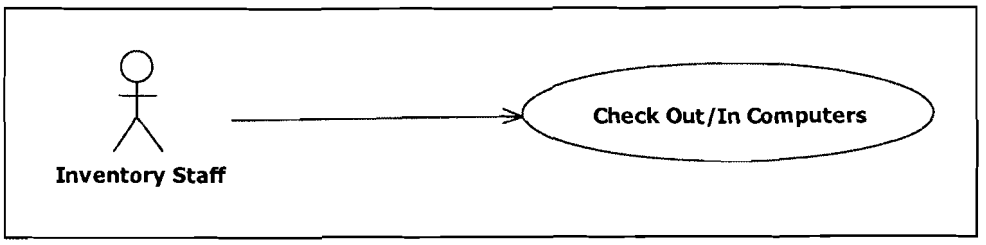


**Figure 7: Manage Check in/out computers Use Case**

##### 4.3.1.5.1. Brief Description

This use case is initiated by Inventory staff. It shows how the Check in/out of computers procedures are carried out

##### 4.3.1.5.2. Pre-Conditions

Inventory staff must be logged in the system

##### 4.3.1.5.3. Characteristic of Activation

Event driven (on Inventory staff demand)

##### 4.3.1.5.4. Flow of Events

###### 4.3.1.5.4.1. Basic Flow

- This use case begins when Inventory staff searches for intern's info using intern's id number.
- Staff then selects the type of computer; enter computer description, barcode number, and computer accessories and then approves the check in.
- As for the check out. Inventory staff searches for intern's info using intern's id number. Then the intern's with return computer information will be shown.
- Staff then adds the date of the returning computer with his/her name to receive by section to approve the check out.

###### 4.3.1.5.4.2. Alternative Flow

Not Applicable

###### 4.3.1.5.4.3. Exceptional Flow

Not Applicable

##### 4.3.1.5.5. Post Conditions

Check in/out computers procedures is done successfully.

#### 4.3.1.5.6. Constraints

Interns must submit their computers into the officers in order to approve their check out request. Check in should be done within one week from the beginning of the Internship.

### 4.3.2. ACTIVITY DIAGRAMS

#### 4.3.2.1. Login Activity

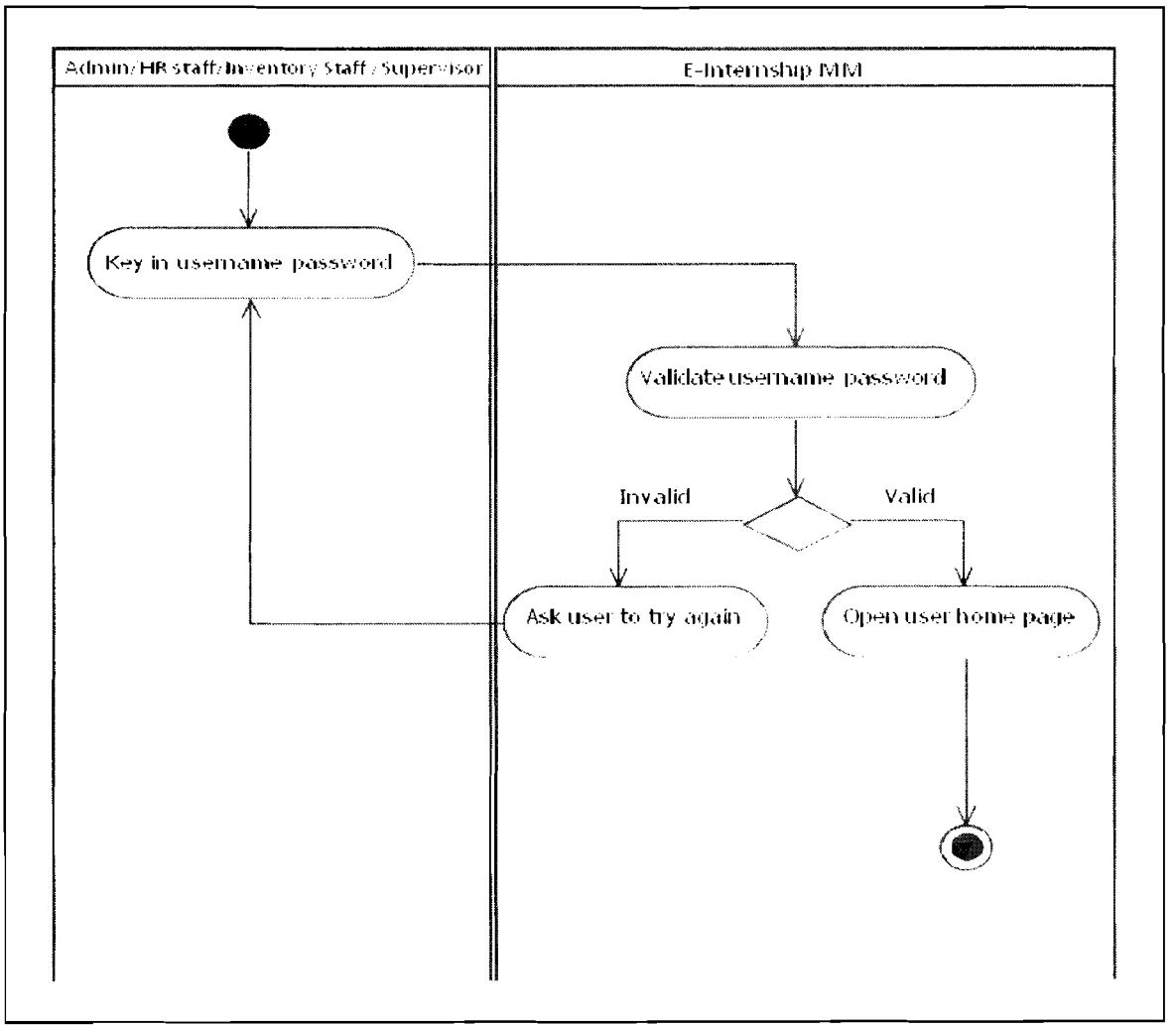


**Figure 3: Login Activity Diagram**

### 4.3.2.2. Manage Bulletin Board Activity

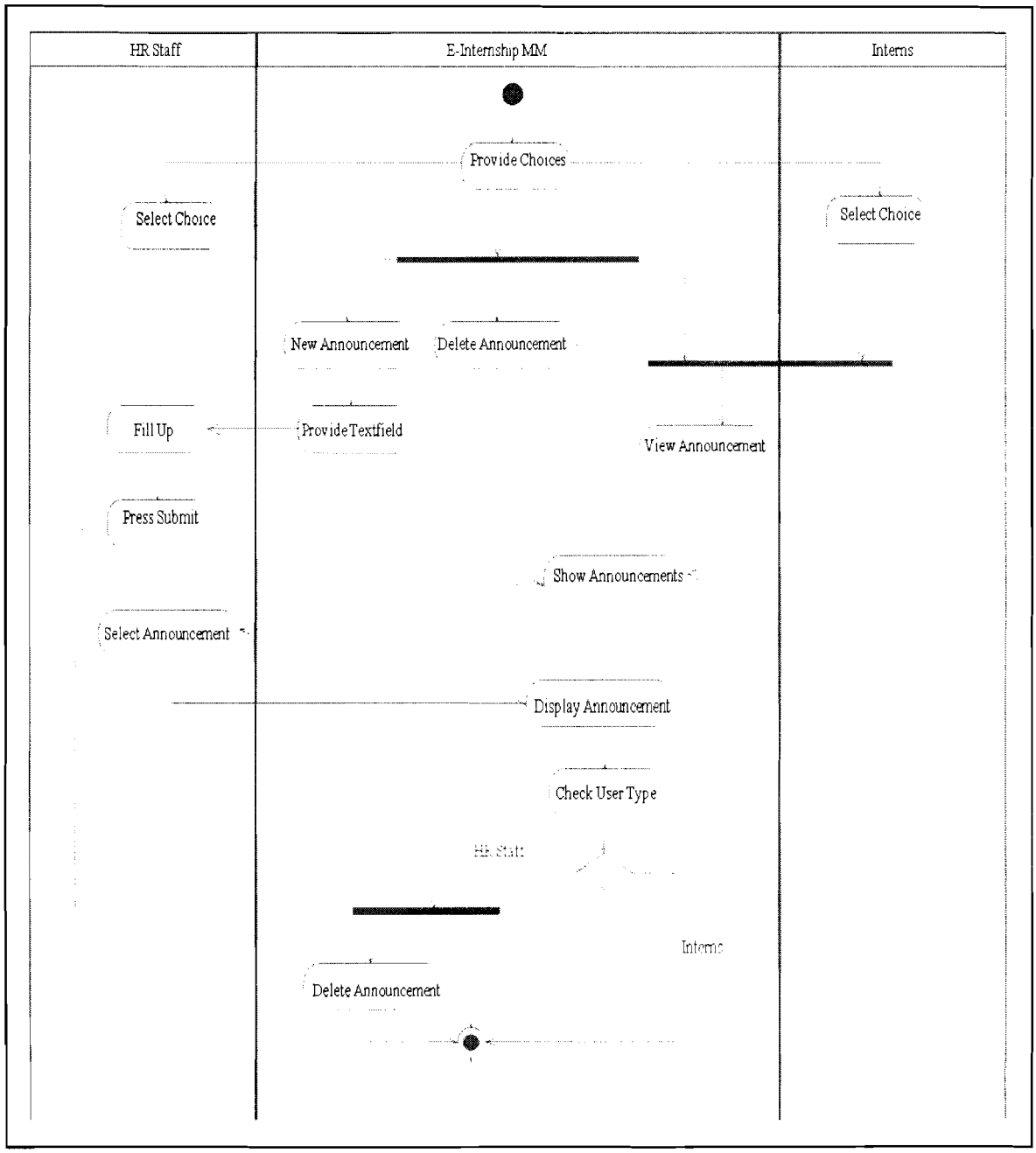


**Figure 9: Manage Bulletin Activity Diagram**

#### 4.3.2.3. Manage Profile Activity

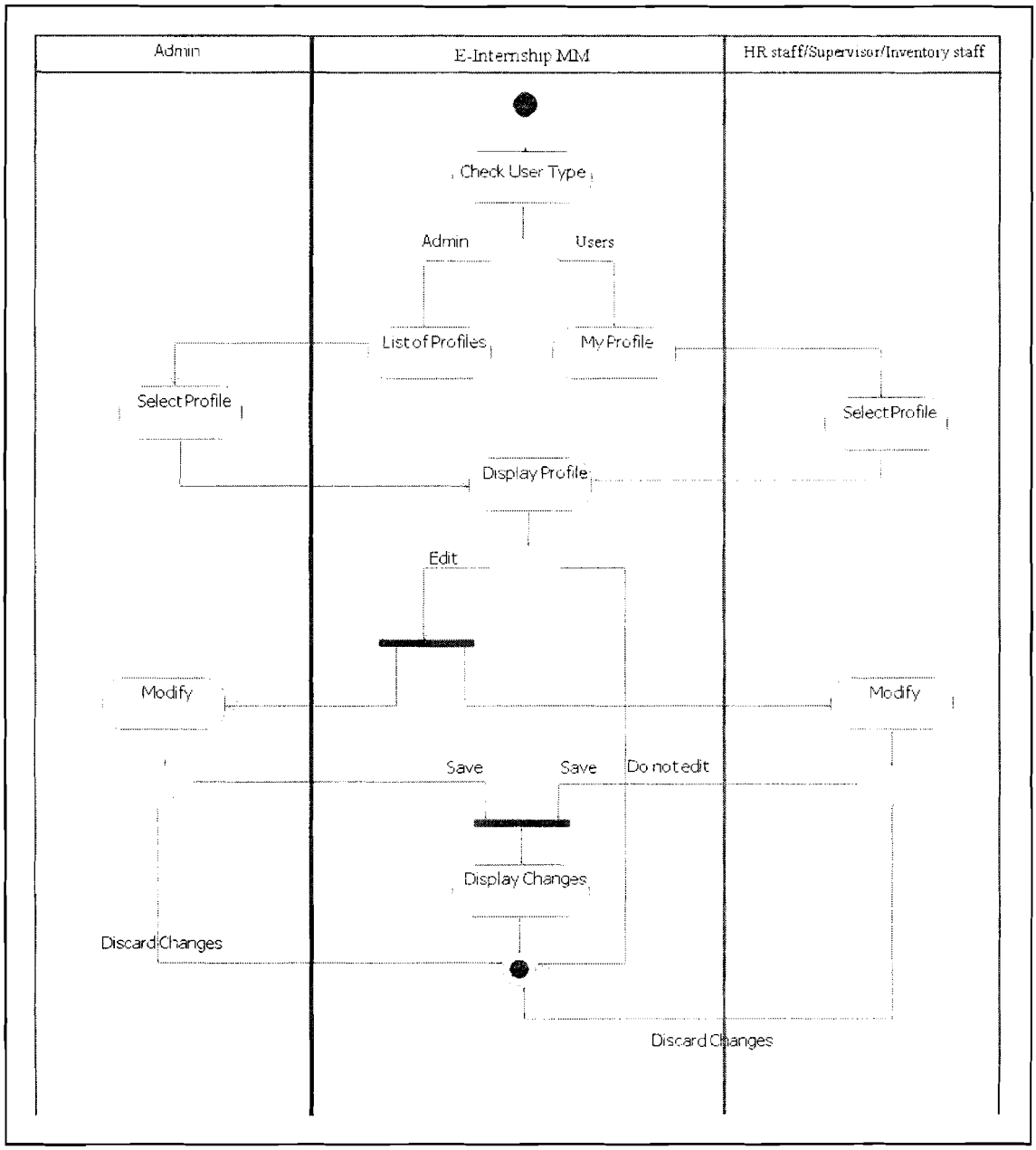


**Figure 10: Manage Profile Activity Diagram**

#### 4.3.2.4. Manage Interns Activity

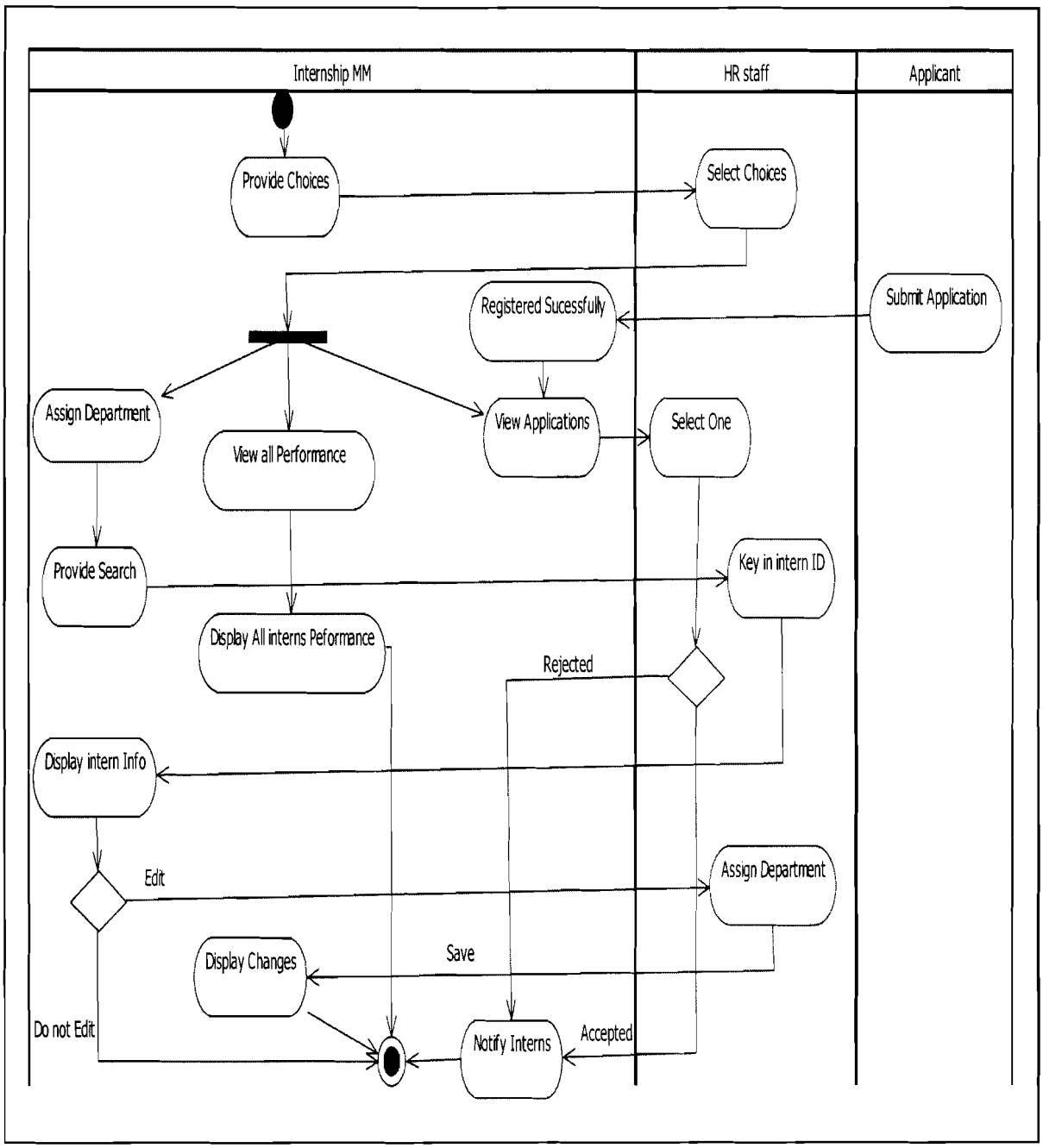


**Figure 11: Manage Interns Activity Diagram**

### 4.3.2.5. Manage Interns Activity (Supervisor Part)

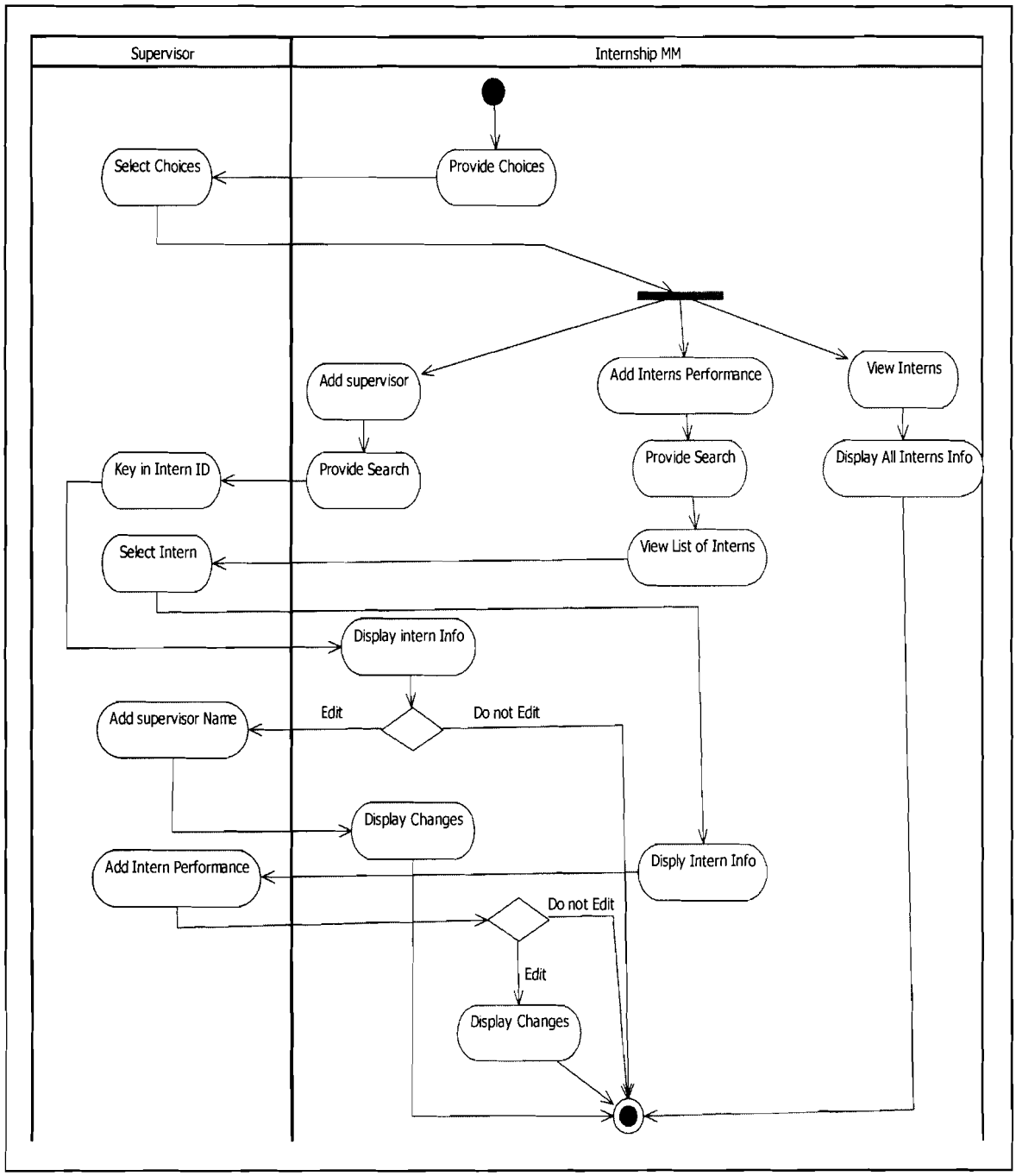


**Figure 11: Manage Interns (Supervisor Part) Activity Diagram**

### 4.3.2.6. Manage Check in/out Computers Activity

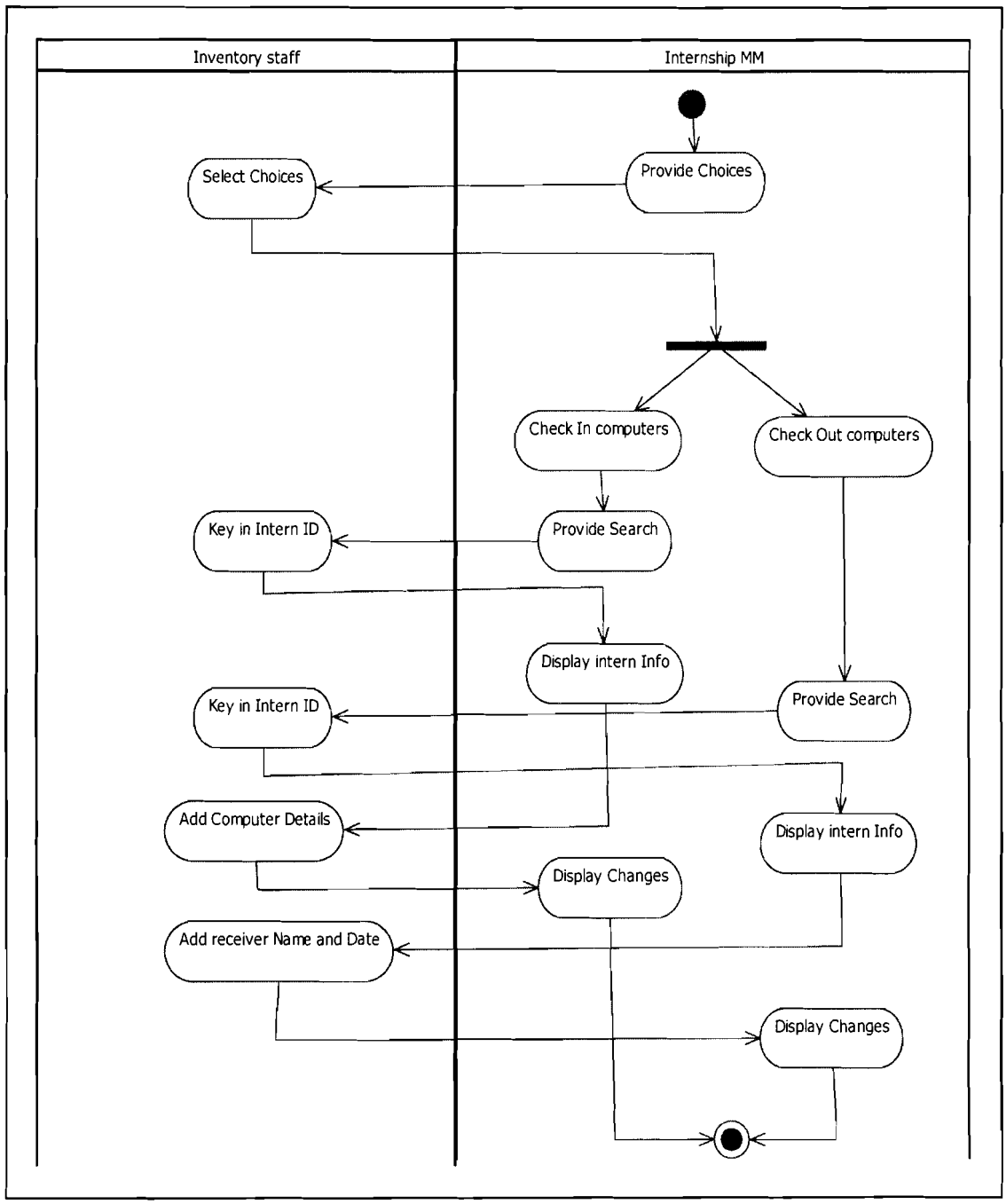


**Figure 12: Manage Check in/out Computers Diagram**

### 4.3.3 SEQUENCE DIAGRAMS

#### 4.3.3.1 Login Sequence :

- Brief Description

This is sequence diagram which initiated by all users (Admin, HR staff, Inventory Staff and Supervisor). This process would allow users with valid username/passwords to access the system.

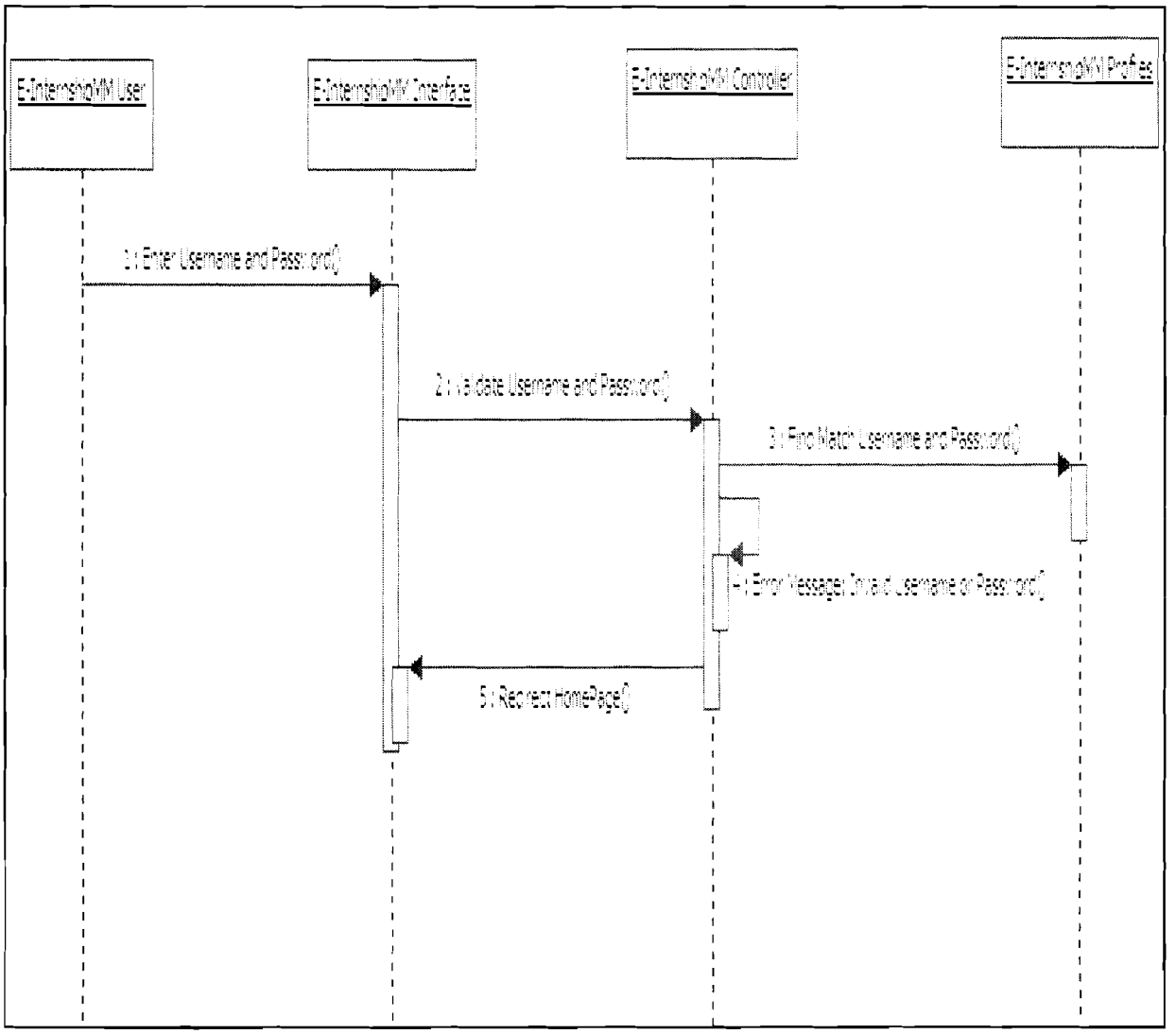

**Figure 13: Login Sequence Diagram**

#### 4.3.3.2 Manage Bulletin Board Sequence:

- Brief Description

This sequence is initiated by HR staff. It shows how the HR staff makes announcements about hall activities and events

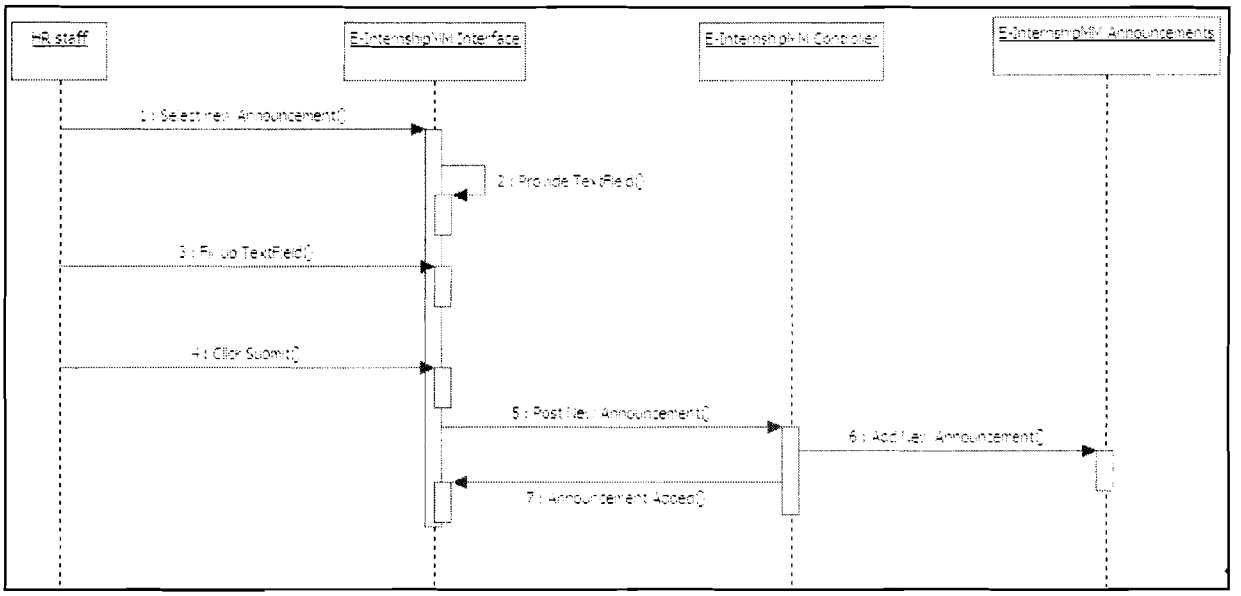


**Figure 14: Manage Bulletin (new) Sequence Diagram**

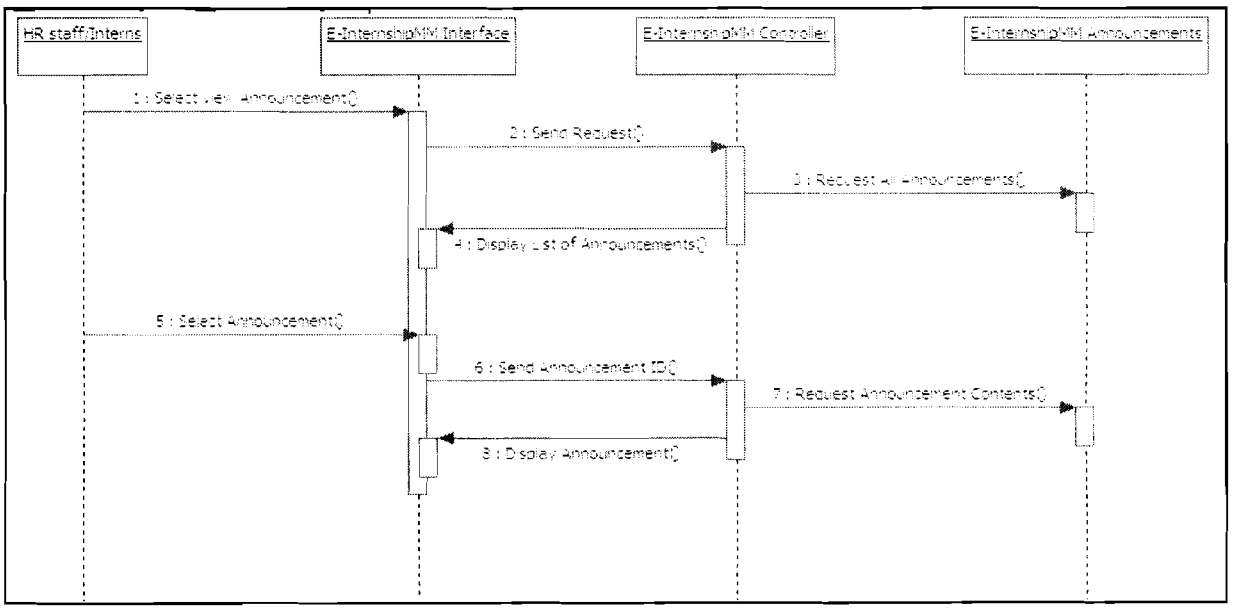


**Figure 15: Manage Bulletin (view) Sequence Diagram**

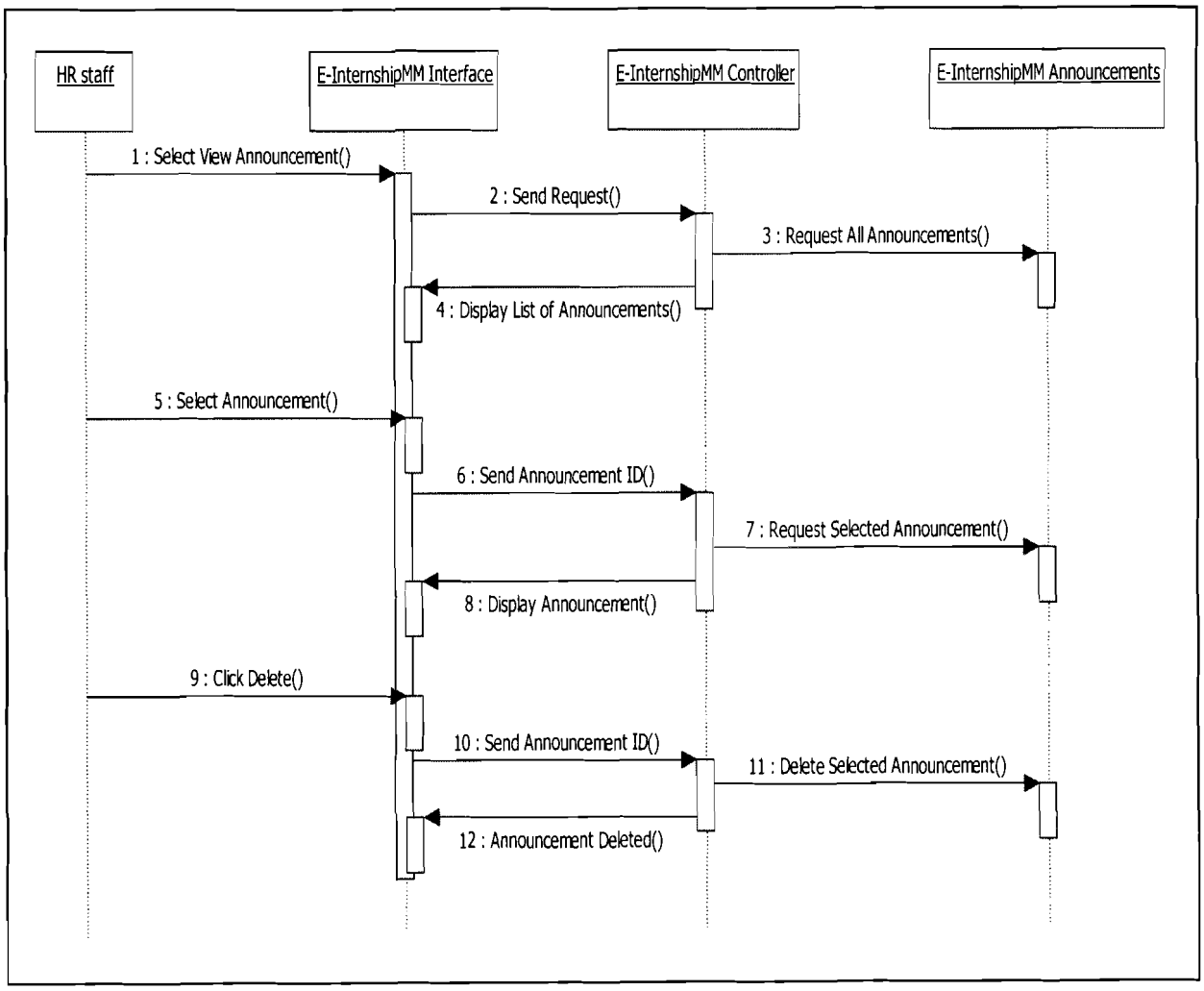


**Figure 16: Manage Bulletin (delete) Sequence Diagram**

#### 4.3.3.3 Manage Profile Sequence :

- Brief Description

This sequence is initiated by the admin, HR staff, Inventory staff and supervisor. It shows how the profiles are managed

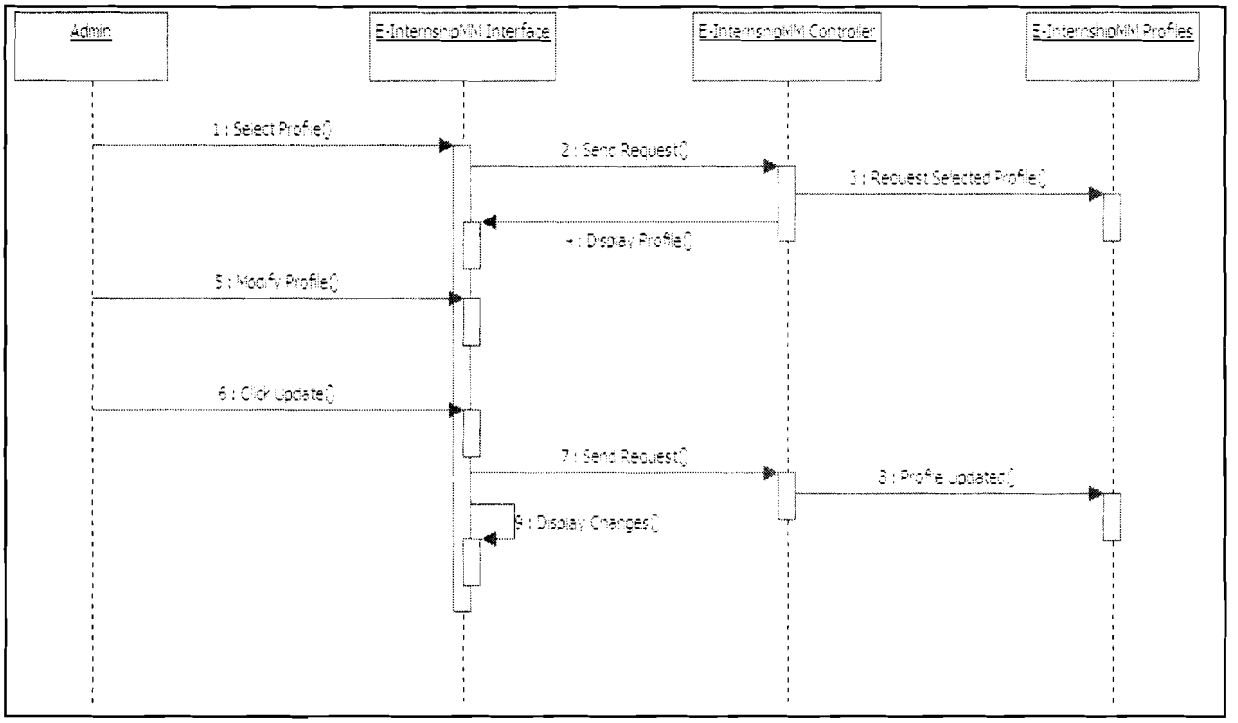


**Figure 17: Manage Profile (admin) Sequence Diagram**

- Brief Description

This sequence begins when the admin key in user ID in order to be updated

The system would allow the admin to edit the selected user's data after the required change been made clicks on [Update] button. Else terminated this process. If user keys-in wrong data type in one of the fields, the system should give response

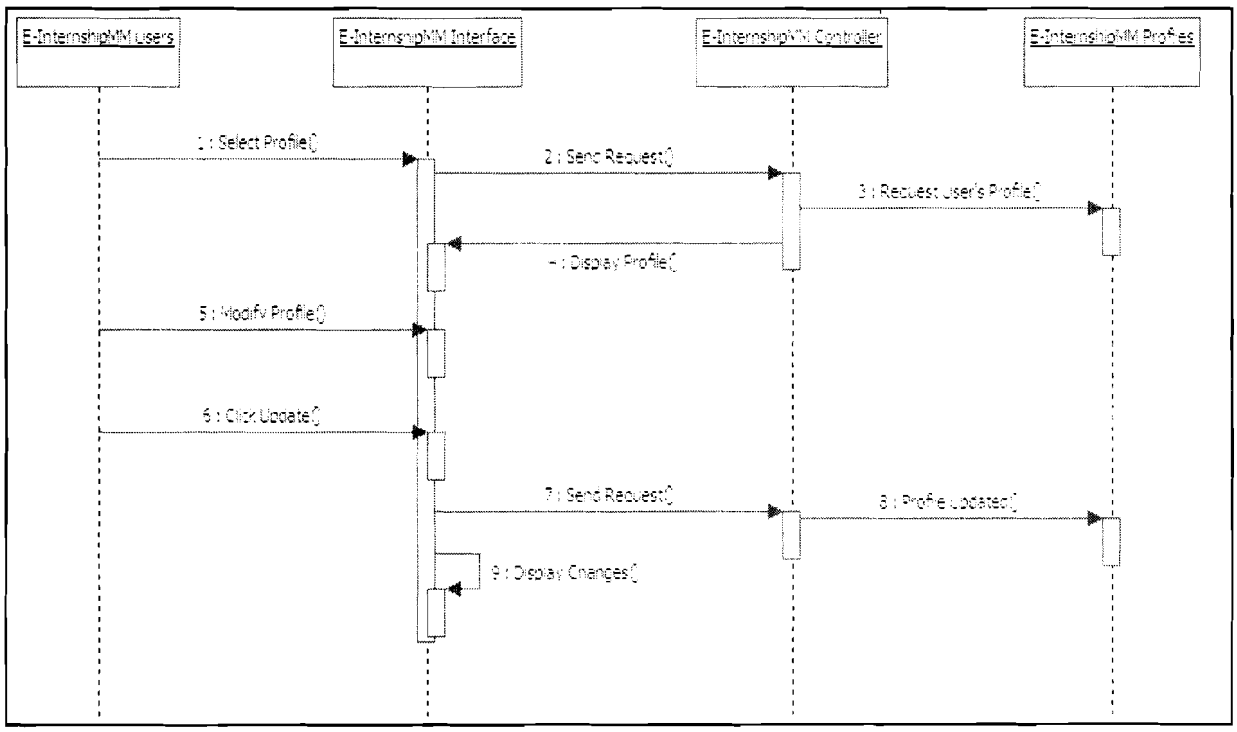


**Figure 18: Manage Profile (Users (HR staff, Supervisor, Inventory staff) Sequence Diagram**

#### 4.3.3.4 Mange Interns (Applicant Sequence Diagram):

- Brief Description :

When applicants submit an application form, HR staff would approve the application form in order to intern start his internship and assign department that intern will do his/her internship also HR staff can view the intern's performance by the end of their internship period.

In Supervisor part : The Supervisor add his/her name as supervisor to the intern by first searching the intern information using the intern's ID number then add his/her name in the supervisor section and after the intern end his/her internship period the supervisor evaluate the intern under his name performance.

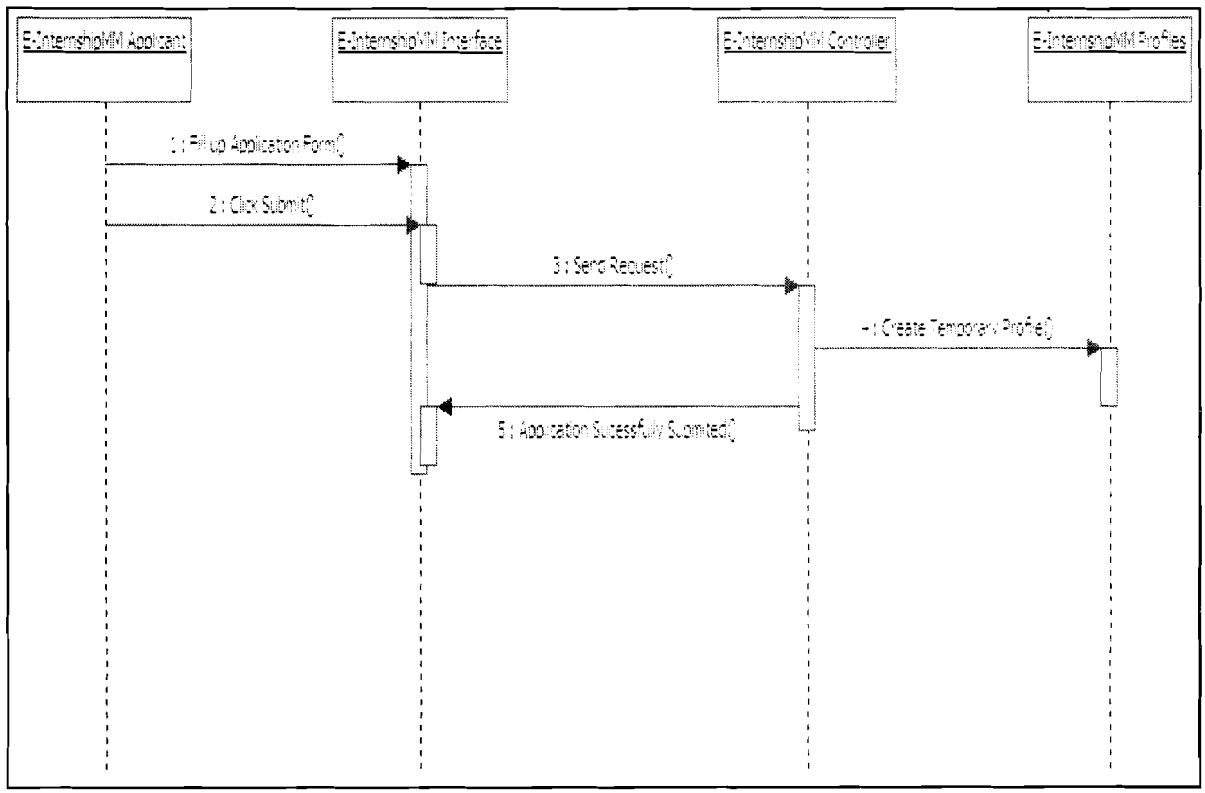


**Figure 19: Manage Interns (Applicant) Sequence Diagram**

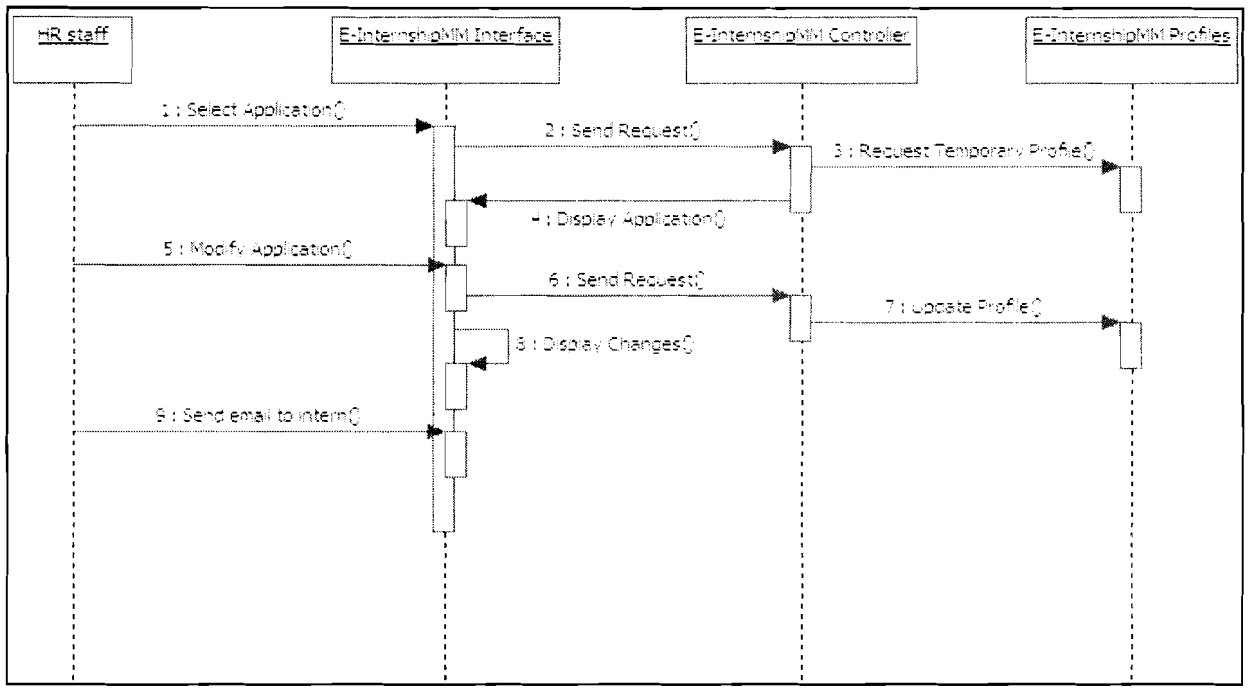


**Figure 20: Manage Interns (HR staff (view applications)) Sequence Diagram**

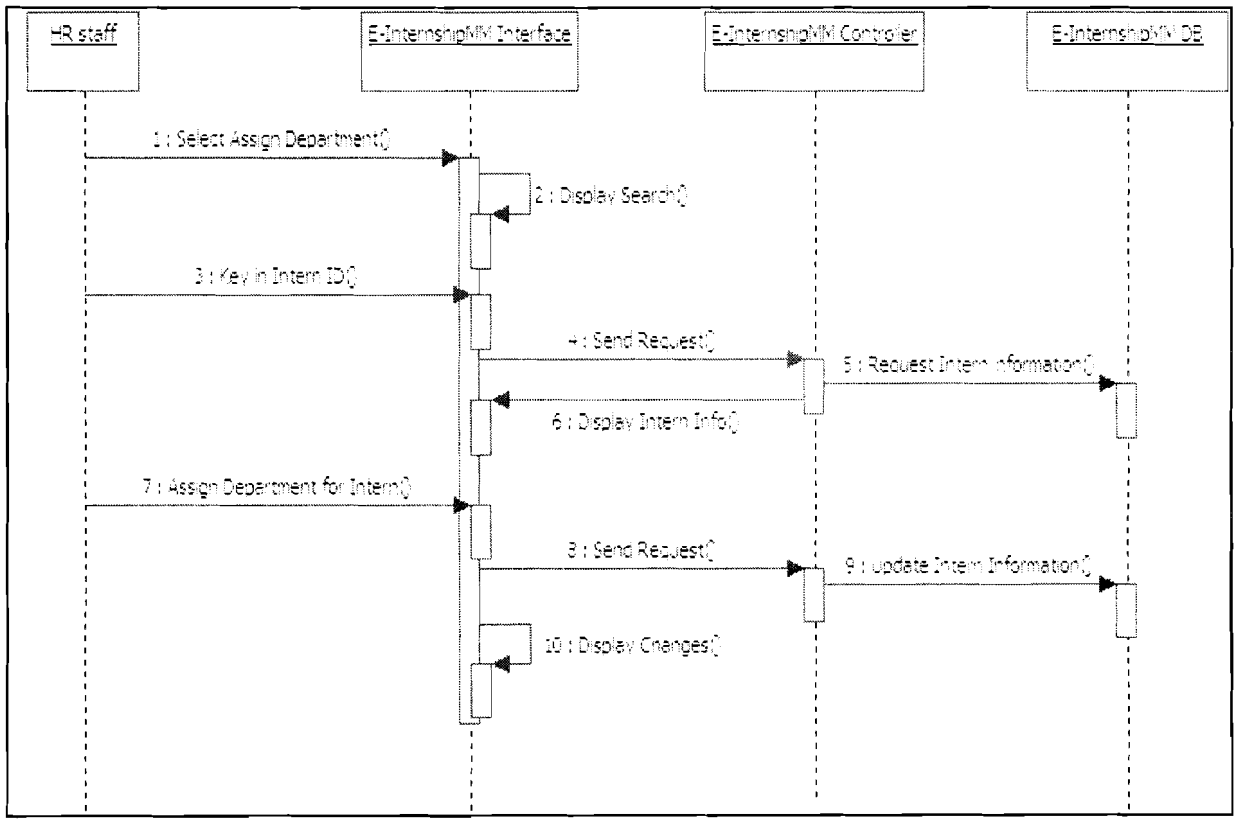


**Figure 21: Manage Interns (HR staff (Assign Department)) Sequence Diagram**

#### 4.3.3.1 Manage Check in/out Computers Sequence Diagram :

- Brief Description

This use case is initiated by Inventory staff. It shows how the Check in/out of computers procedures are carried out

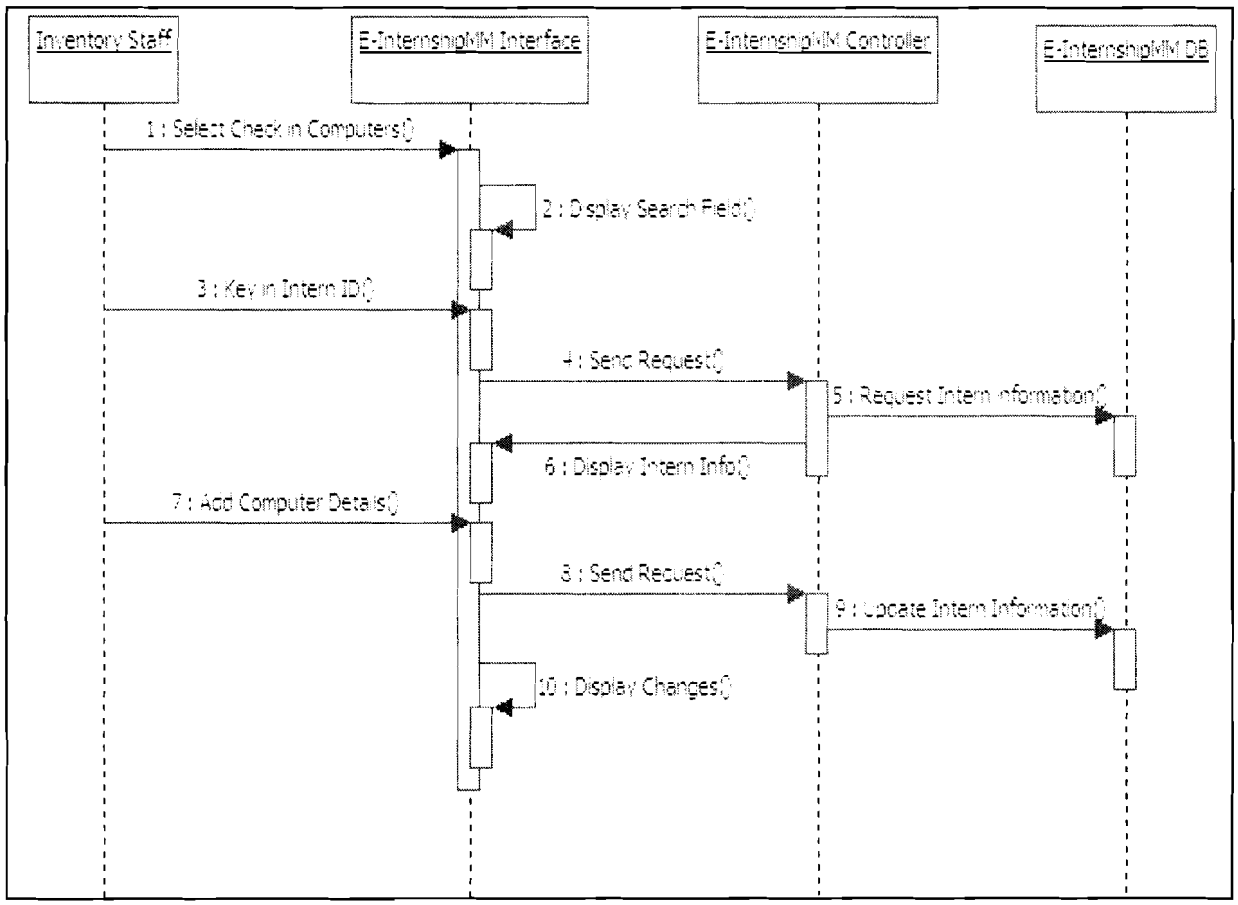


**Figure 22: Manage Interns (Inventory Staff (Check in producer) Sequence Diagram**

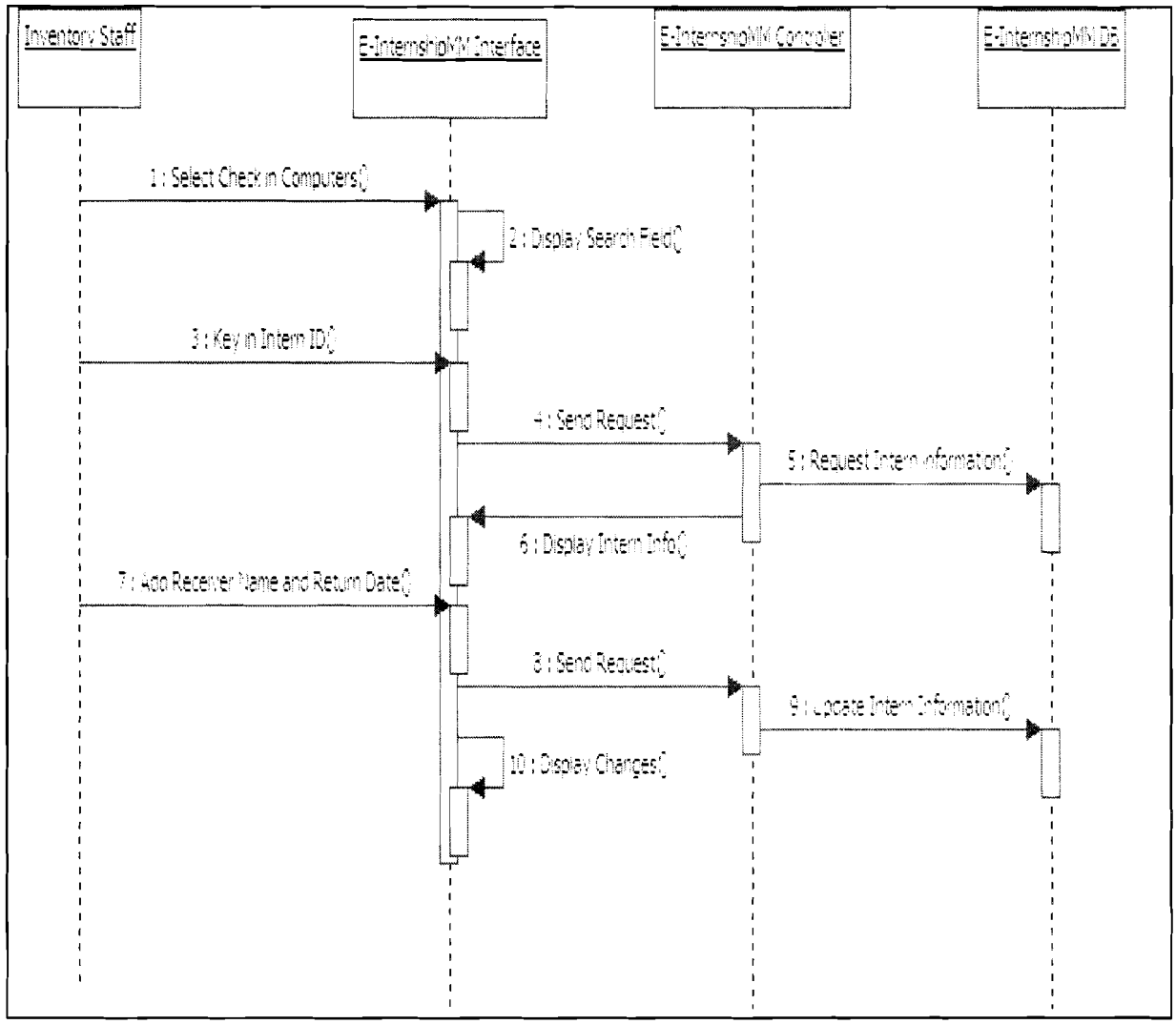


**Figure 23: Manage Interns (Inventory Staff (Check out producer) Sequence Diagram**

## 4.3.4. COLLABORATION DIAGRAMS

### 4.3.4.1. Login Collaboration

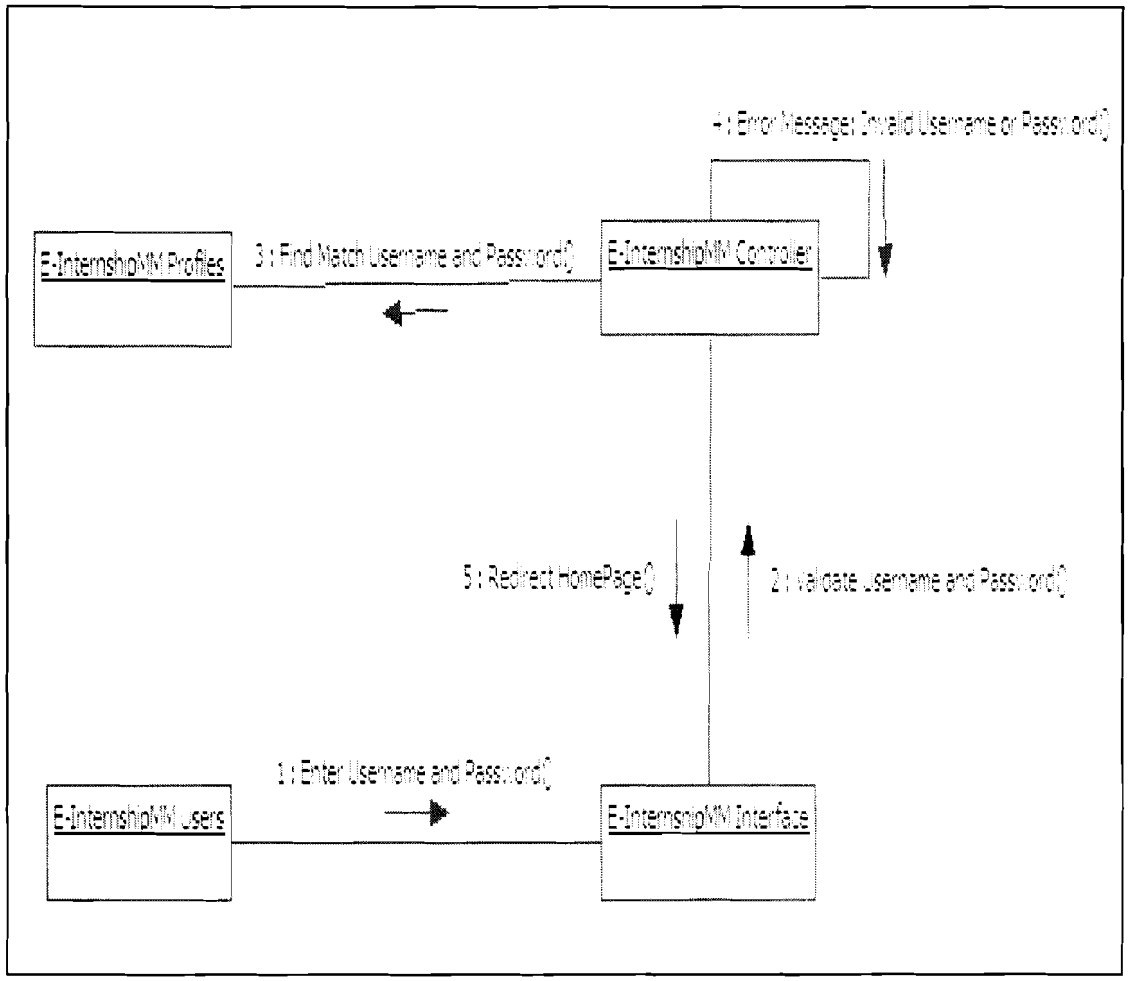


**Figure 23: Login Collaboration Diagram**

### 4.3.4.2. Manage Bulletin Board Collaboration:

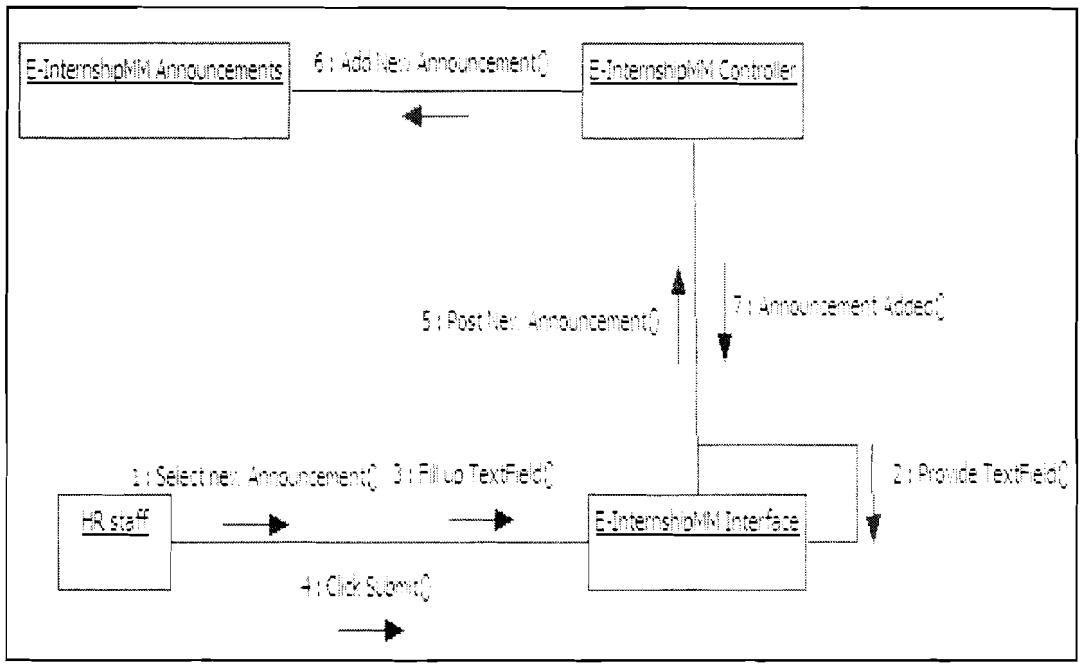


**Figure 24: Manage Bulletin (new) Collaboration Diagram**

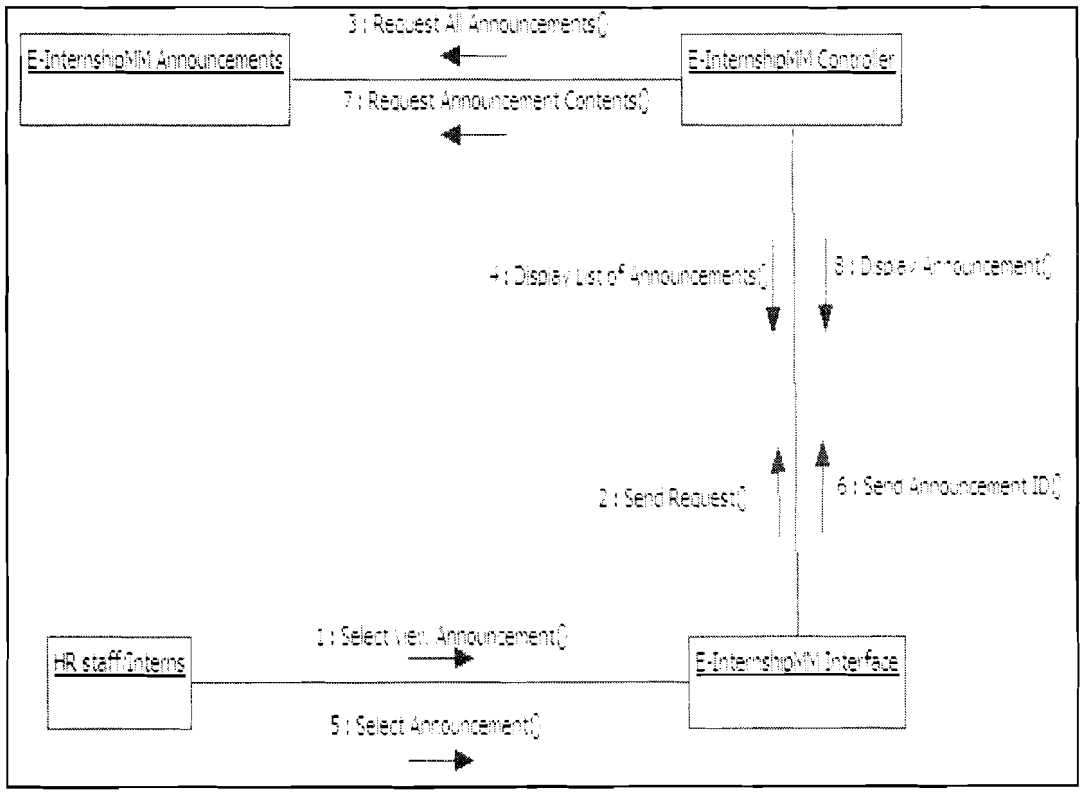


**Figure 25: Manage Bulletin (view) Collaboration Diagram**

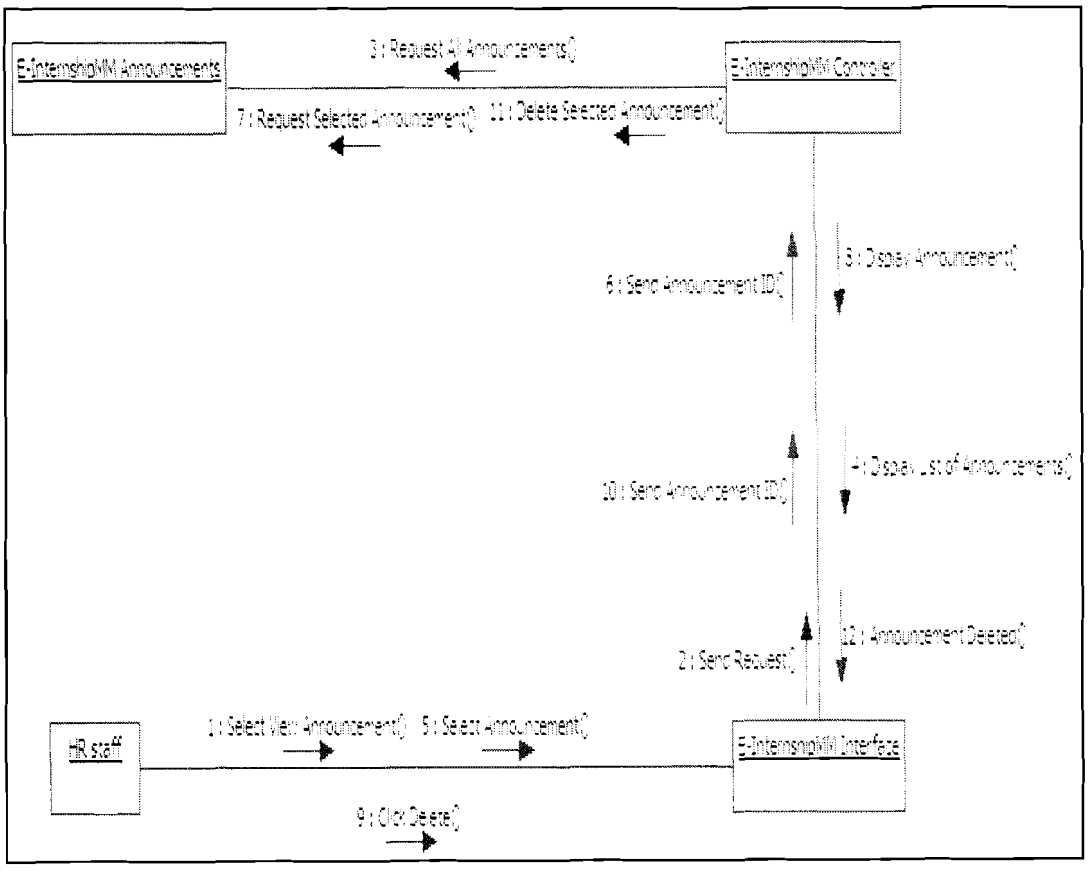


**Figure 25: Manage Bulletin (delete) Collaboration Diagram**

### 4.3.4.3. Manage Profile Collaboration :

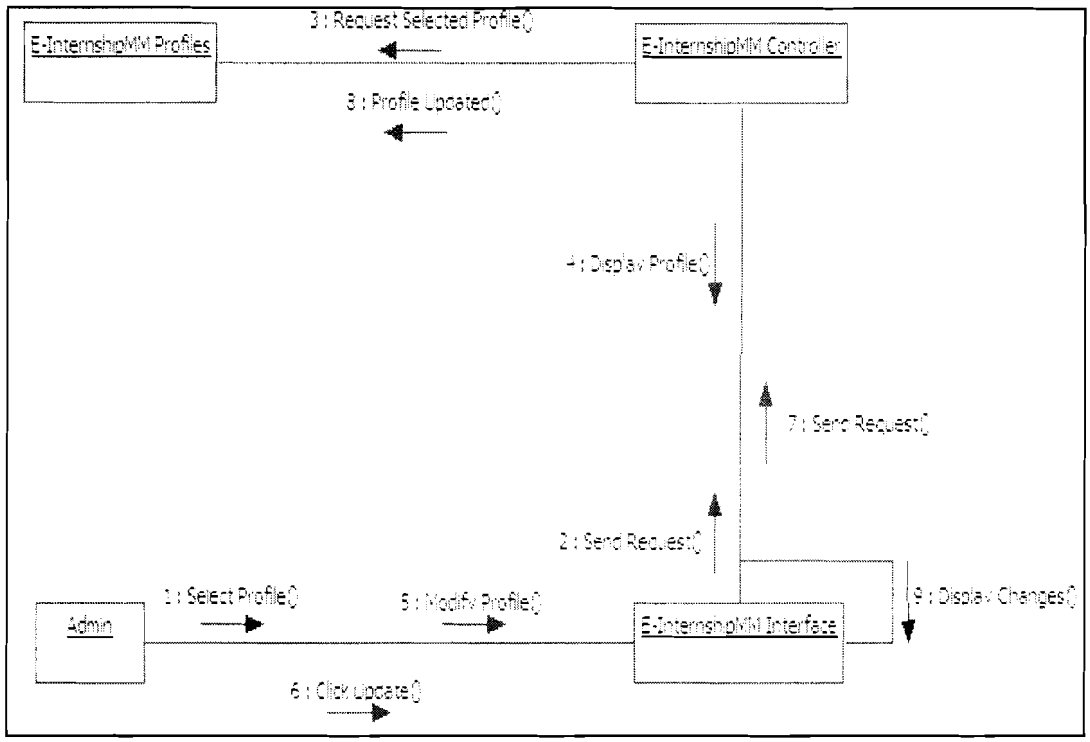


**Figure 26: Manage Profile (admin) Collaboration Diagram**

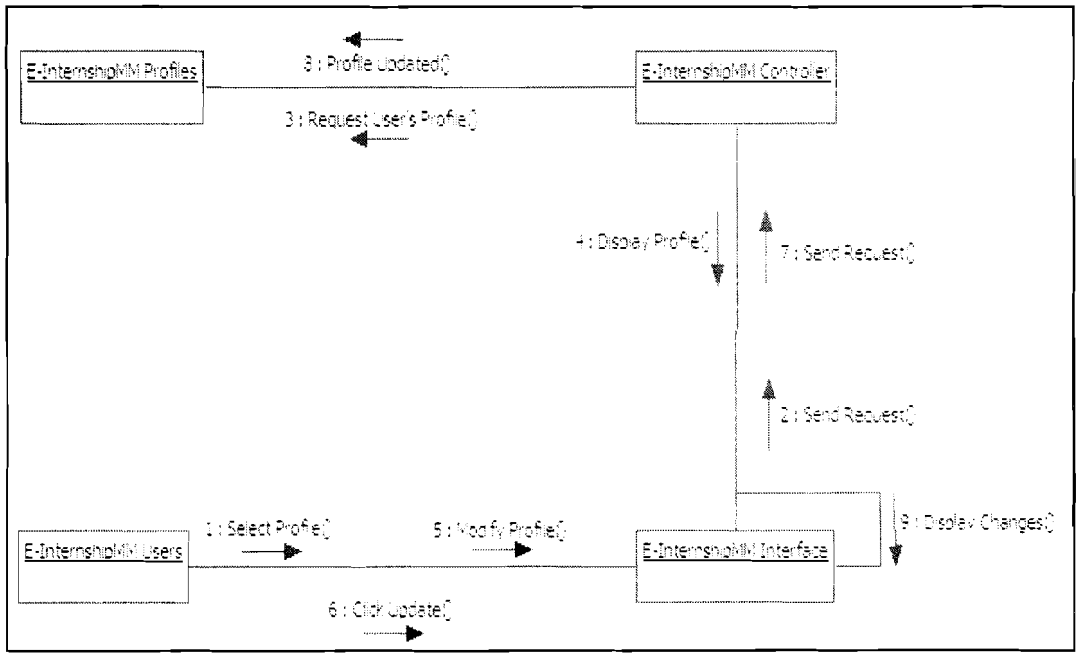


**Figure 27: Manage Profile (Users (HR staff, Supervisor, Inventory staff) Collaboration Diagram**

### 4.3.4.4. Mange Interns (Applicant) Collaboration :

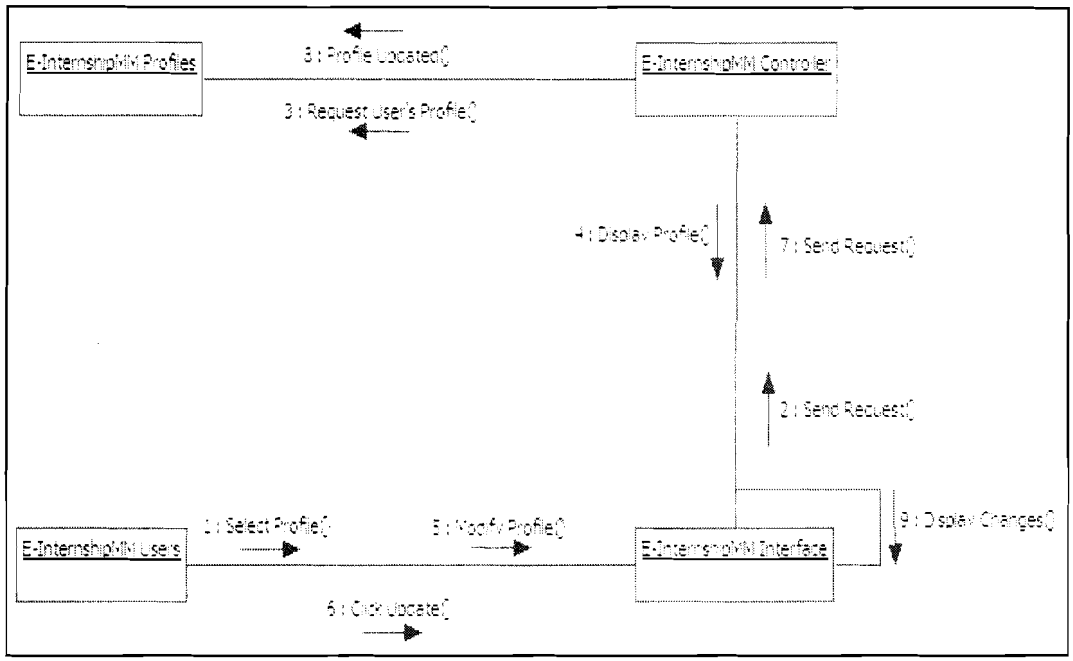


**Figure 28: Manage Interns (Applicant) Collaboration Diagram**

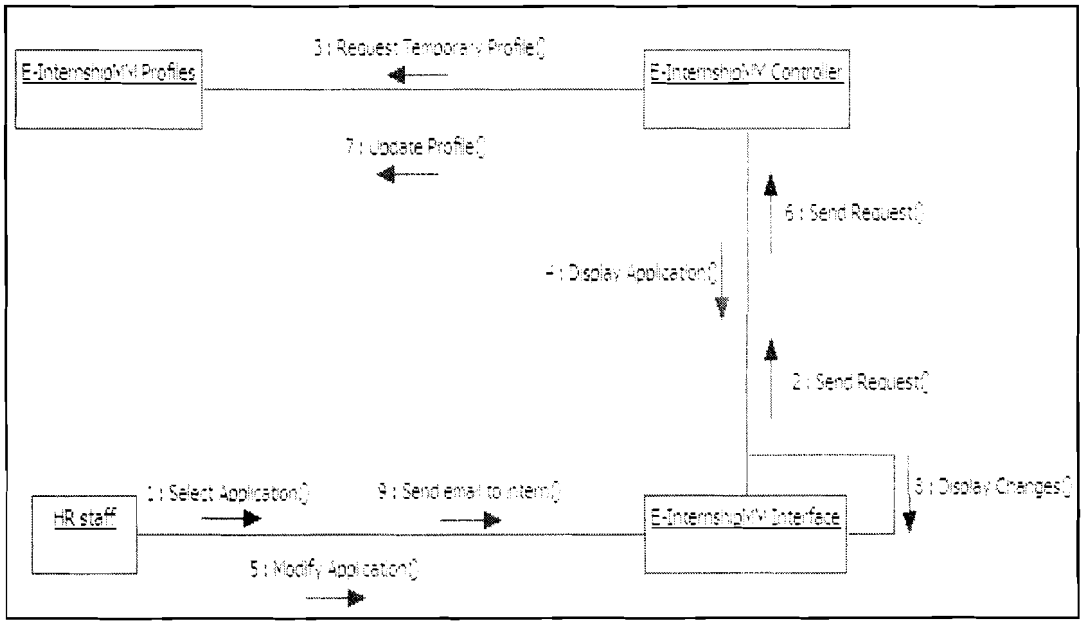


**Figure 29: Manage Interns (HR staff (view applications)) Collaboration Diagram**

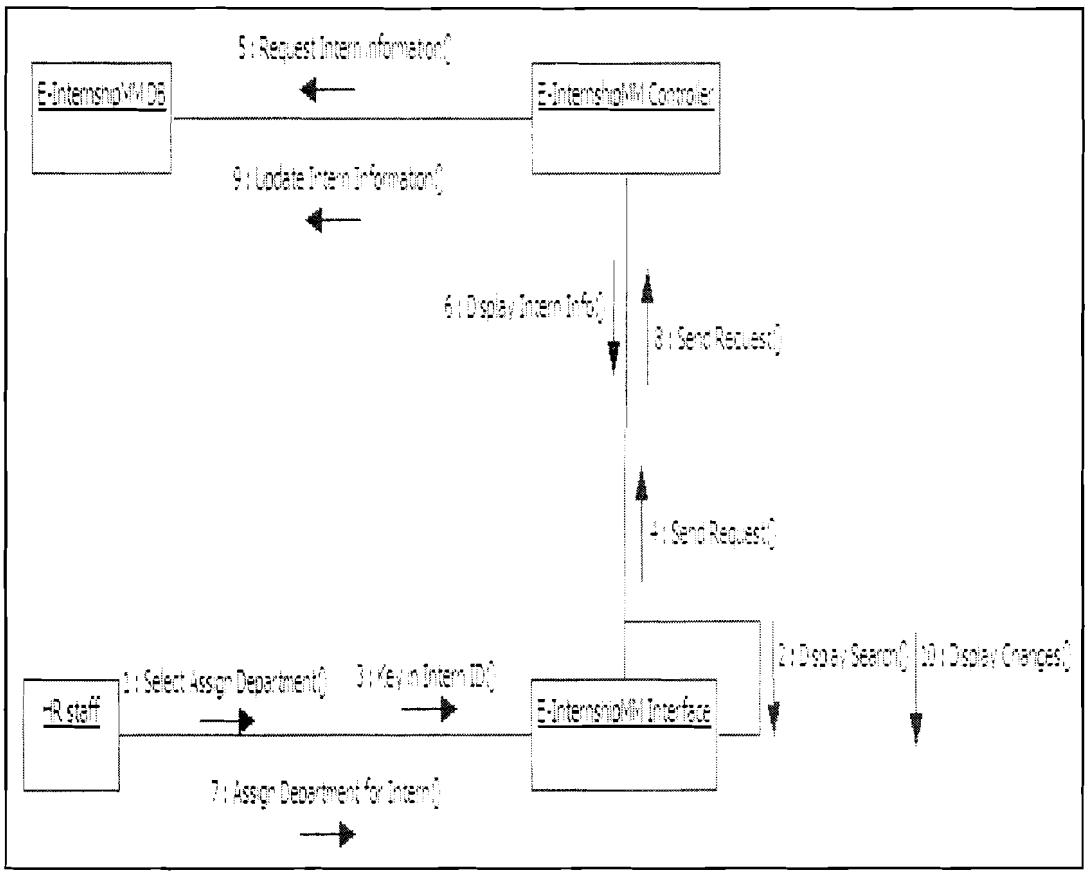


**Figure 29: Manage Interns (HR staff (Assign Department)) Collaboration Diagram**

### 4.3.4.5. Manage Check in/out Computers Collaboration :

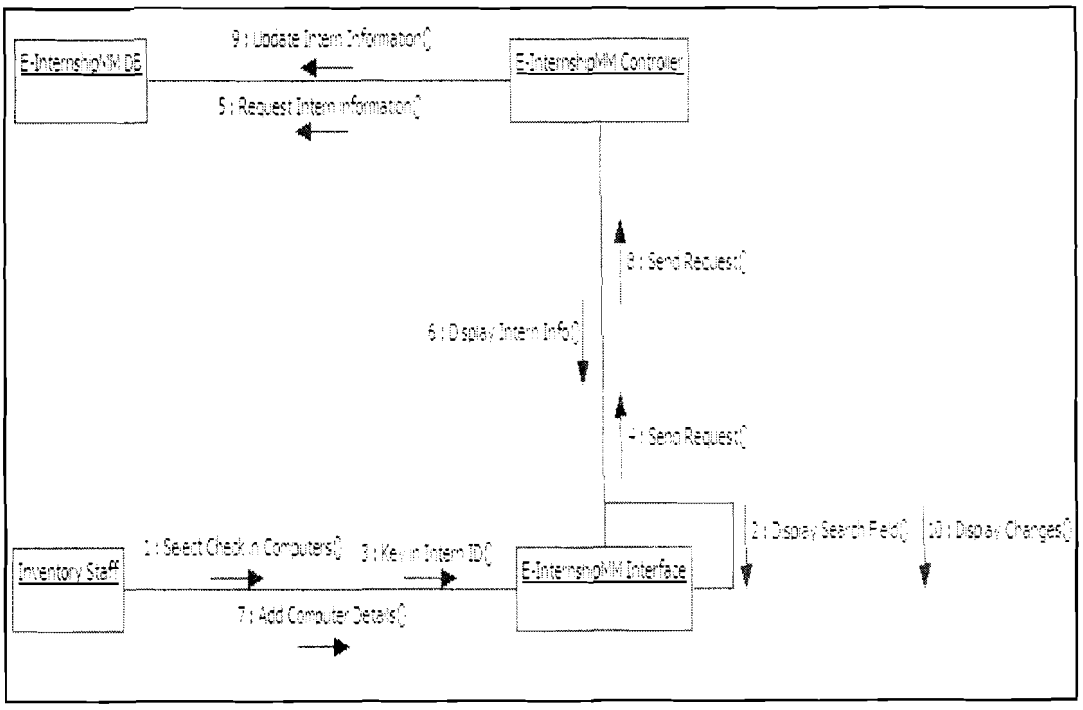


**Figure 30: Manage Interns (Inventory Staff (Check in producer) Collaboration Diagram**

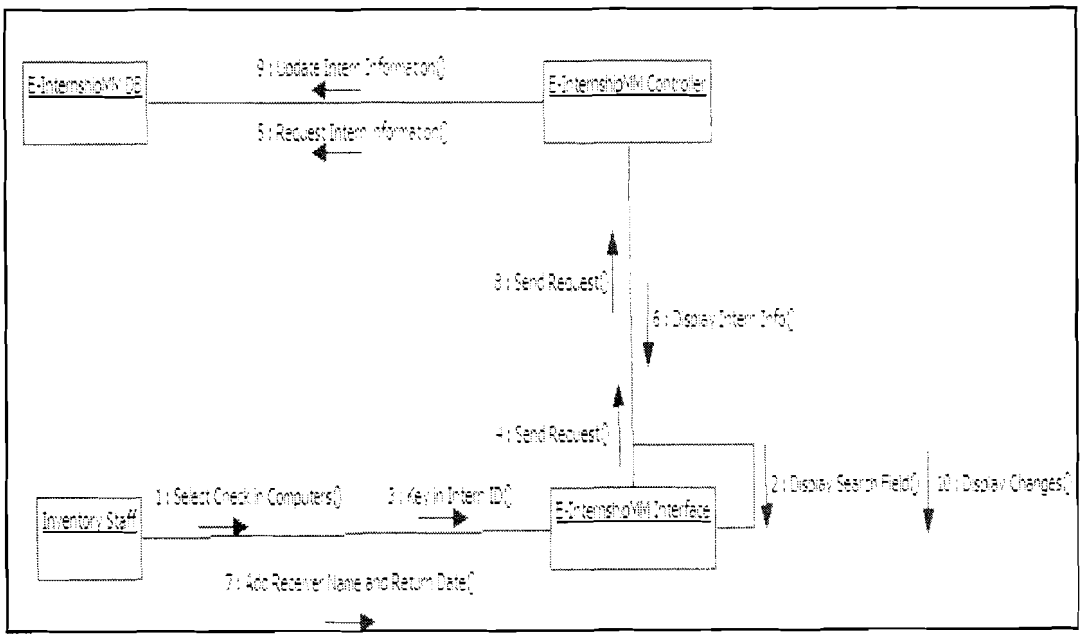


**Figure 31: Manage Interns (Inventory Staff (Check out producer) Collaboration Diagram**

## 4.3.5. CLASS DIAGRAM

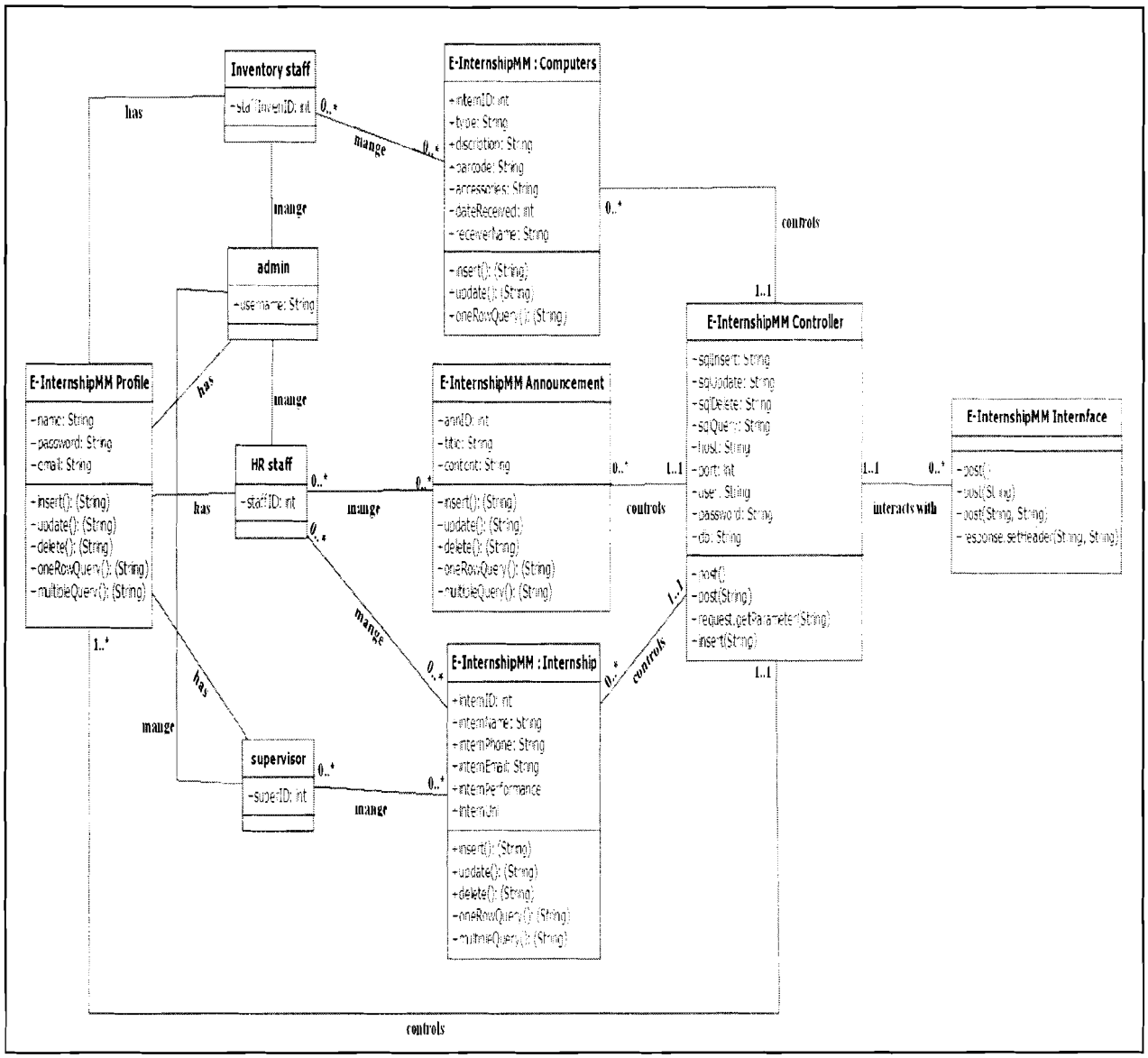


**Figure32: Class Diagram**

### 4.3.6. SNAPSHOTS

Please, refer to Appendix B.

## 4.4. SUMMARY

This chapter has clearly shown the steps taken in order to build the proposed system. At the end of this chapter, the E-Internship Management Model was successfully completed and ready to be tested.

# CHAPTER FIVE

# EVALUATION AND TESTING

## 5.1. INTRODUCTION

This chapter discusses the evaluation of the artifact which has been produced by the researcher at the end of the study. The chapter would highlight the evaluation and testing techniques which the researcher has chosen in order to evaluate the outcomes of the study in our hands.

## 5.2. EVALUATION TECHNIQUES

According to Kaner (2009), Software testing is an investigation conducted to provide stakeholders with information about the quality of the product or service under test. Therefore testing and evaluating a product, a web application in the case of this study, is carried out for many reasons in order to validate and verify whether the product meets and satisfies the needs and requirements of the business which the product has been developed for as well as if the product technical performance is up to the expectations.

As a matter of fact there are varieties of testing and evaluation techniques which could be implemented in order to guarantee the delivery of a product which is close to perfection. However, due to the limited time frame for this study the researcher has decided to conduct acceptance testing.

## 5.3. ACCEPTANCE TESTING

Acceptance testing falls under the Black-Box testing category. The term acceptance testing is used in agile methodologies, software engineering, to be more specific it is widely used in Extreme Programming approach.

Acceptance Testing is a functional testing of the scenario given by the client to the developers during the implementation phase. This type of testing is carried out in order to check the functionality of the software whether it could do the functions which it has been developed for. Another reason to conduct functional testing is to verify what the user could do with the system and what could not be done. It also checks the validity of each feature whether it is working in a proper way or not.

The advantage of this type of software testing is the possibility of conducting it during the development phase of the system as well. Thus it was a perfect technique which suits the Extreme Programming methodology which has been adopted in order to deliver this project.

Functional testing of the system was conducted two times as shown in Table 3 in which the first testing was during the development phase of the system while the second was after completing the system.

The developed model has four types of users; Admin, HR staff, Inventory staff and Supervisor. Therefore each test is divided into four parts according to the user type.

Test 1 was conducted during the development and was tested by 5 testers for each type of user once each type of user model was completed. Test 2 was conducted once the system was completed and similarly to Test 1, each user has been tested, however the number of the testers at this time was double the number of Test 1 testers, 10 testers for each user type.

The following abbreviations are used:

- A – Indicates Admin user type.
- B – Indicates HR staff user type.
- C – Indicates Inventory staff user type.
- D – Indicates Supervisor user type.
- P – Indicates Pass result.
- N– Indicates not involved in this section.
- F – Indicates Fail result.

**Table 4: Functional Testing**

| Event | Function | 1st Test (5 Testers) | | | | 2nd Test (10 Testers) | | | | Remarks | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | A | B | C | D | A | B | C | D | 1st Test | 2nd Test |
| Insert | Add new staff, intern, announcement, computers. | F | P | P | P | P | P | P | F | Duplicate entry | Fixed |
| Select | Select staff, intern, announcement, computers… etc | P | F | F | P | P | P | P | P | Expiry date | Fixed |
| Update | Update admin, staff, intern, announcement, computers. | F | P | P | N | P | P | P | N | Updating admin | Fixed |
| Delete | Delete staff, intern, announcement. | P | P | N | N | P | P | P | N | | Pass |
| Links | Direct and redirected links | P | F | P | P | P | P | P | P | Confirmation Page Link | Fixed |
| Buttons | Submit, Rest, Back buttons | P | P | P | P | P | P | P | P | | pass |

## 5.4. SUMMARY

This chapter highlighted the evaluation and testing technique which has been implemented in order to evaluate the system. Acceptance test was technique chosen by the researcher in order to validate the functionality of the system features referring to the requirements and the scenarios given by the client.

There were two main testing in which the first testing was done in few separated session depending on the delivery of each feature. The second test was performed once the system was fully completed and ready to be implemented.

As it has been clearly summarized in Table 5 of section 5.3 there were few bugs detected in the first test and were solved on spot. While conducting the second testing session which was for the entire system there were few minor errors and all were fixed.

# CHAPTER SIX

# CONCLUSION AND FUTURE WORK

## 6.1. INTRODUCTION

This chapter provides brief summarization of the study. It explains the way this study has been conducted as well as the limitations and constraints faced the research while working on this study as well as some recommendations which the research would like to address for future work in this area.

## 6.2. CONCLUSION OF THE STUDY

E-Internship Management Model is a Web Based application that will be developed to the Internship Program in Islamic Development Bank. The proposed system objective is to improve the current internship management process. Unlike the current system, the new system will be developed for staff as well as interns in order to minimize effort and time consumption as well as elimination data redundancy. Moreover, the new system will provide effective solutions for some critical issues such as the intern evaluation problem. The adopt methodologies in order to achieve the objective of this study was combination of Extreme Programming (XP) and Rational Unified Process (RUP) which made a perfect combination and delivered the expected outcome E-Internship Management Model within the estimated time.

The following list shows the main features which E-Internship Management Model provides:

- Admission Details: Allows management staff to accept and approve applications from interns.
- Assigning Supervisor: Allows management staff to assign supervisor for each intern
- Interns Information: Keeps record of students' details.
- Evaluating interns' performance: it allows the supervisor to evaluate the overall performance of the interns.
- Bulletin Board: A feature to post announcements and events.

## 6.3. LIMITATIONS AND CONSTRAINTS

As commonly known, there is no perfect study therefore it was obvious that there would be some difficulties and problem. Some of the problems raised during conducting this study could be summarized into the following:

### 6.3.1. Time Factor

The research and the development as well as the testing were all done by the researcher in a period of three months which was a tough job to be completed in the way it is supposed to be. However, almost all the basic functions are included and generally the system is re-engineer-able easily whenever changes are required.

### 6.3.2. Client Response

The expectations of the staff and interns were very high and way too different at the same time which caused the researcher face a real challenge in order to find solutions which would satisfy all types of user. Aside from the variety of aspects, the manager of the Human resource was changed during the development which had an impact on the research progress.

## 6.4. RECOMMENDATION(S)

This study was done in a developing environment with Local Server and it is highly recommended to be tested in user environment with servers that could handle huge transactions. Additionally, we hope this project is adopted by the Islamic Development Bank and enhanced more in order to benefit the interns and staff as well.

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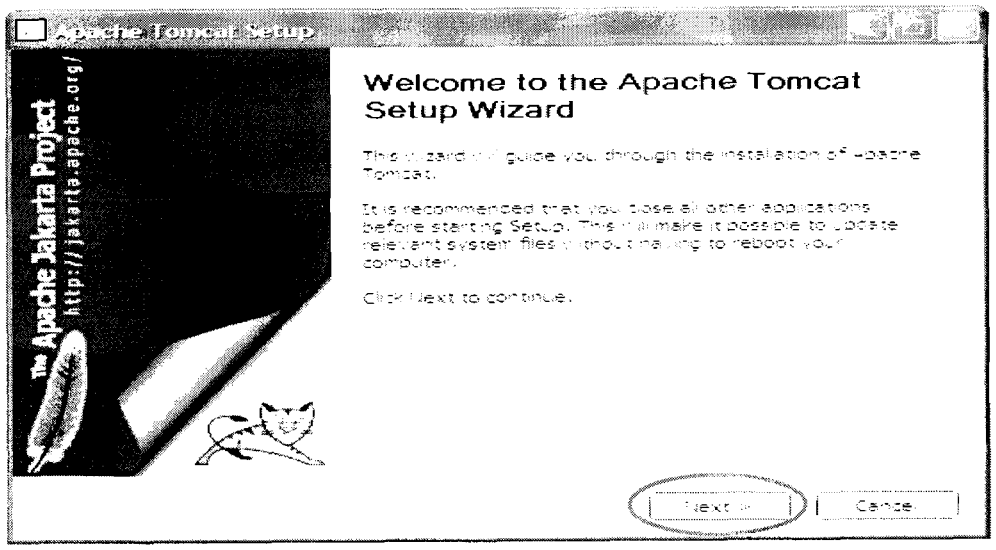
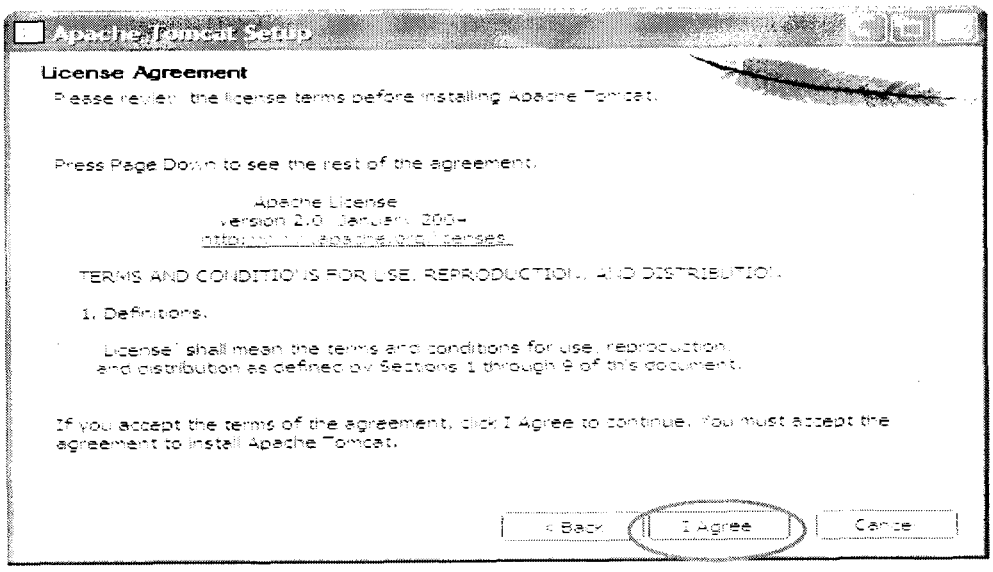
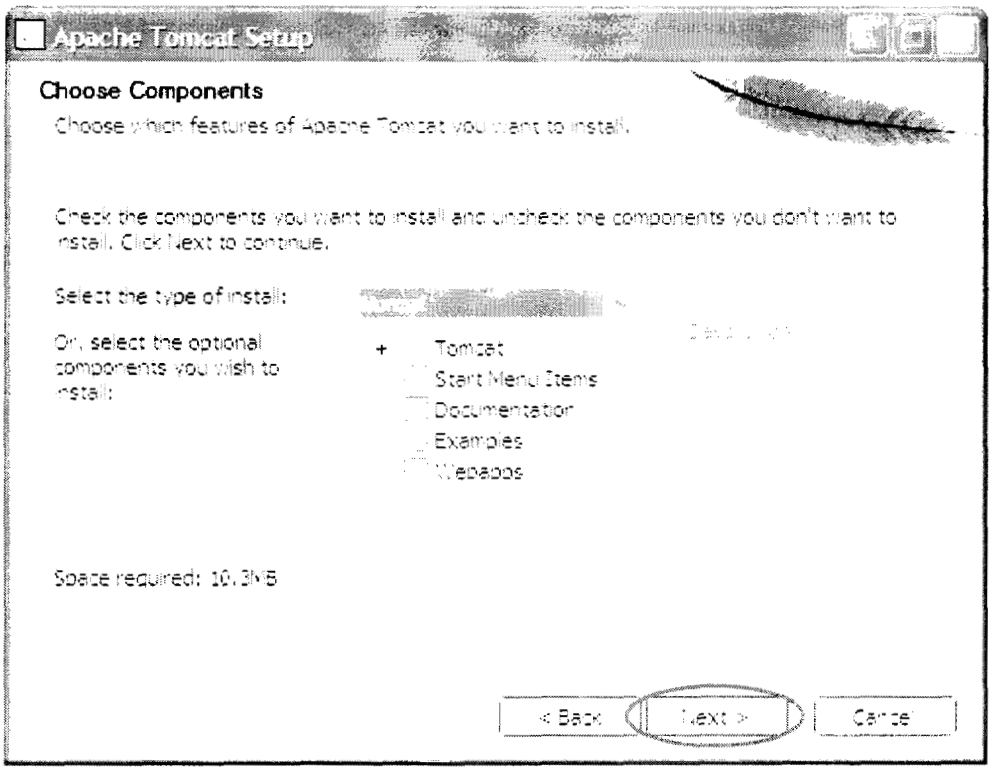
# 8. APPENDICES

## 8.1. APPENDIX A: INSTALLATION GUIDELINES

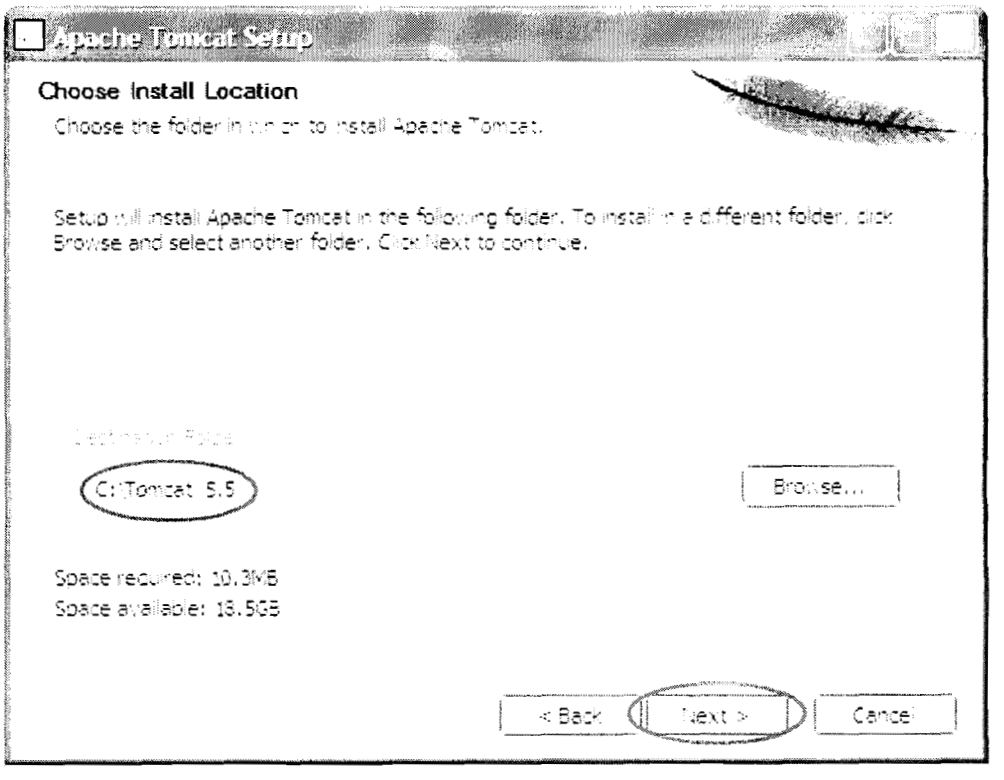
- Install JDK6 if you there is no one installed already.
- Install Apache Tomcat



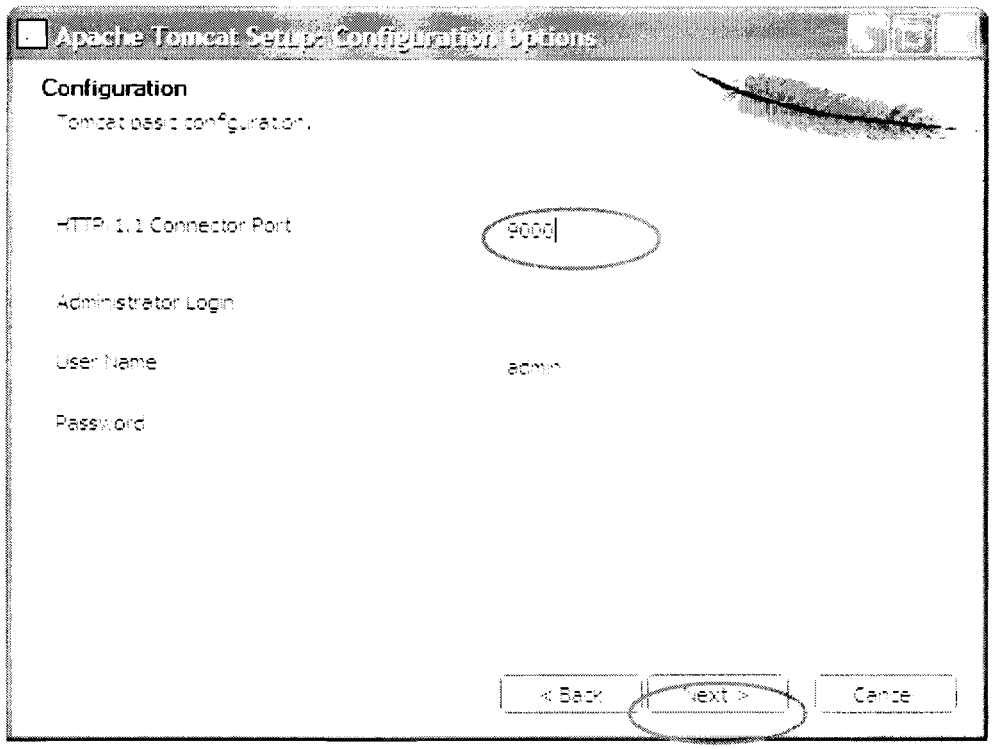






- Install Tomcat Server to C:\Tomcat 5.5\



- It is recommended to set port number as 8080

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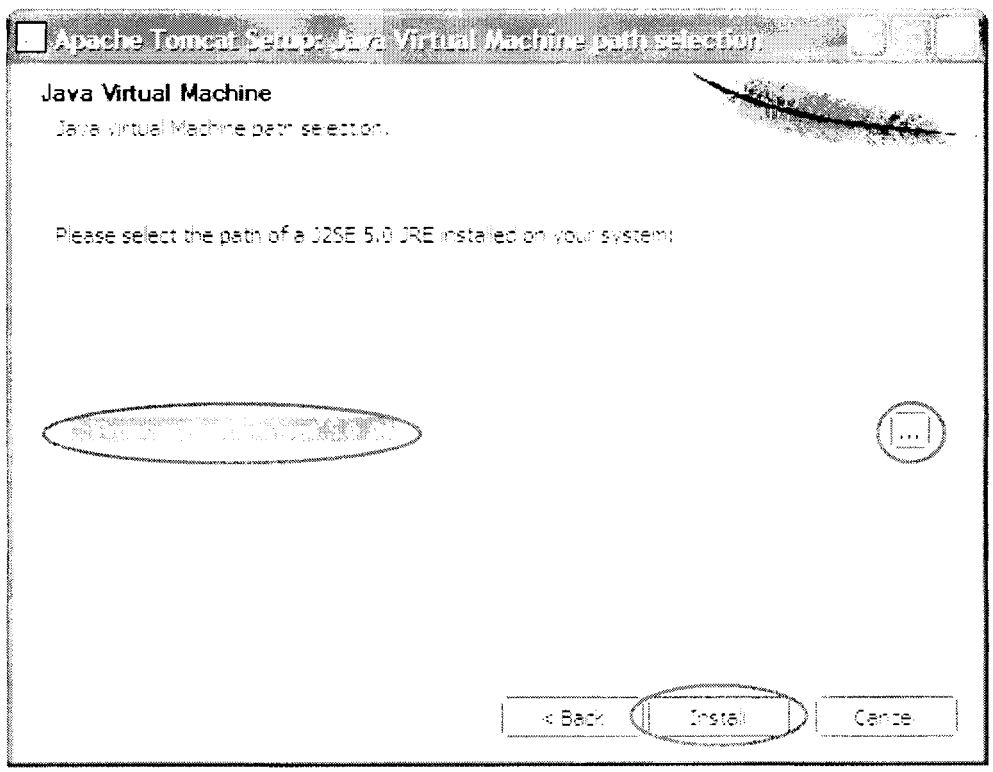


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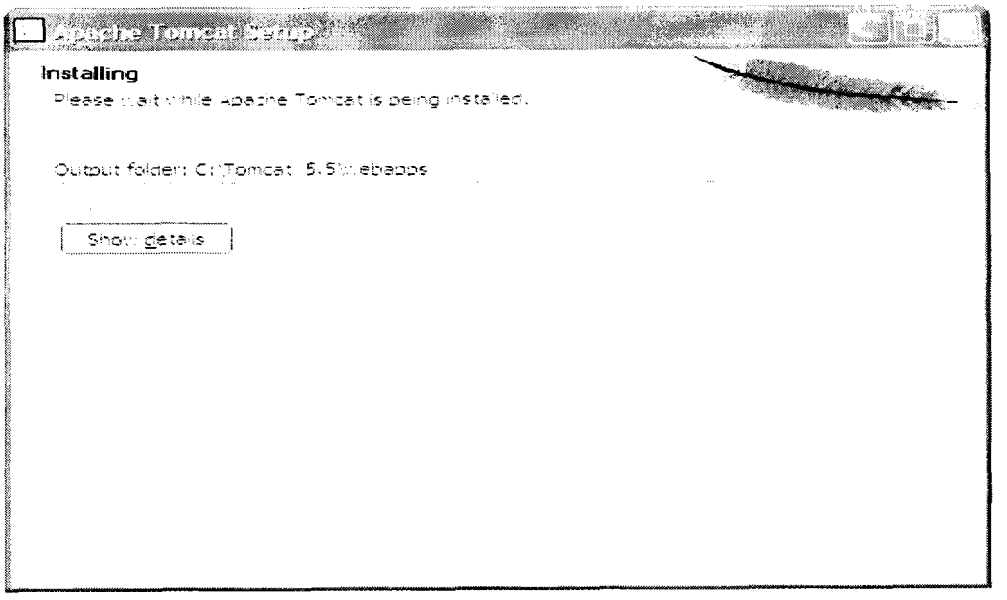
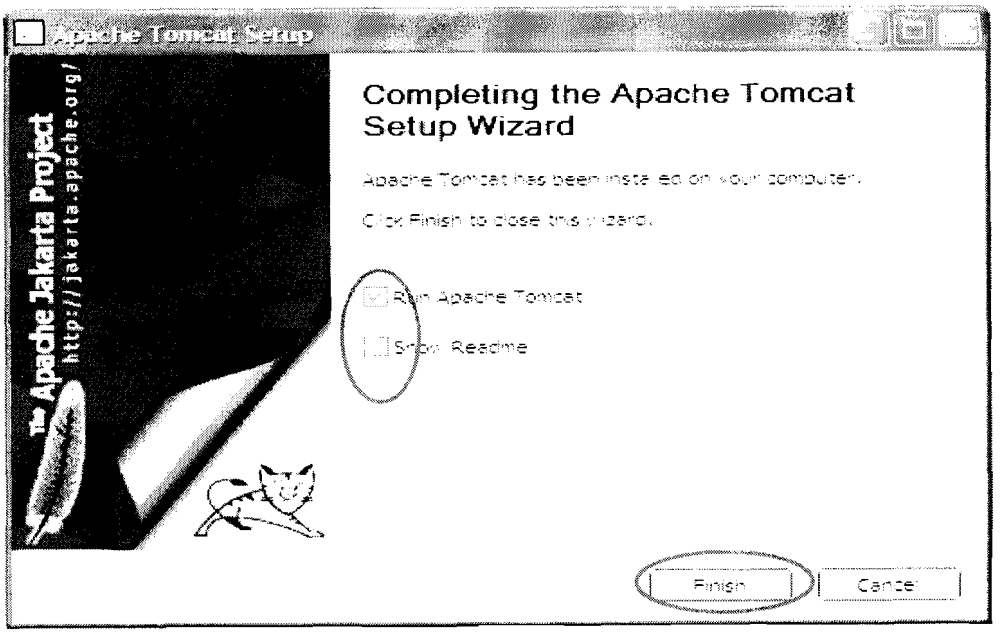
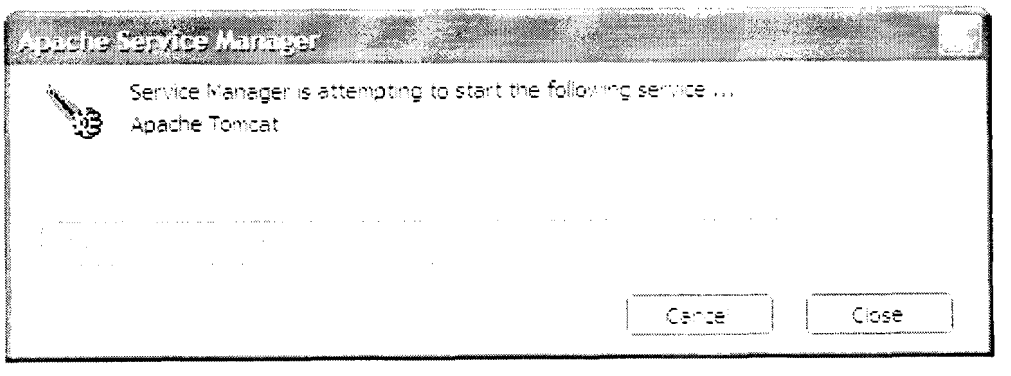
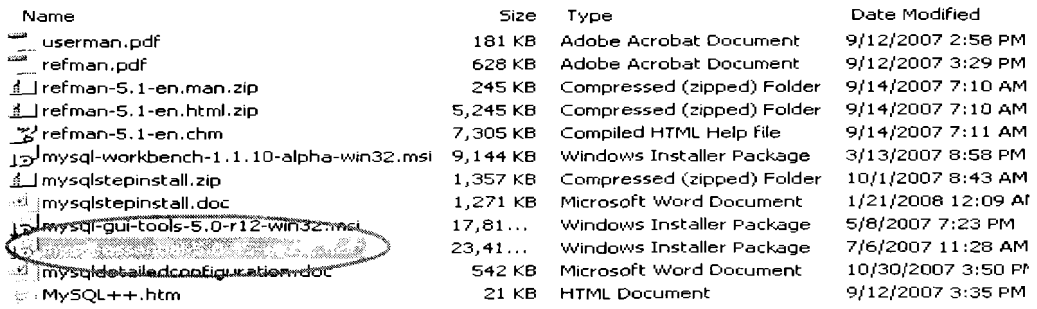

Apache Tomcat Setup
Installing
Please wait while Apache Tomcat is being installed.
Output folder: C:\Tomcat 5.5\webapps
Show details


Apache Tomcat Setup
Apache Jakarta Project
http://jakarta.apache.org/
Completing the Apache Tomcat Setup Wizard
Apache Tomcat has been installed on your computer.
Click Finish to close this wizard.
Run Apache Tomcat
Show Readme
Finish
Cancel


Apache Service Manager
Service Manager is attempting to start the following service ...
Apache Tomcat
Cancel
Close

- Copy from the cd [IDB] folder into C:\Tomcat 5.5\webapps
- Click on Configure Tomcat [Startup menu>All Programs>Apache Tomcat]
- Click on Start to run the sever

- Double click the Windows installer msi file.



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| refman.pdf | 628 KB | Adobe Acrobat Document | 9/12/2007 3:29 PM |
| refman-5.1-en.man.zip | 245 KB | Compressed (zipped) Folder | 9/14/2007 7:10 AM |
| refman-5.1-en.html.zip | 5,245 KB | Compressed (zipped) Folder | 9/14/2007 7:10 AM |
| refman-5.1-en.chm | 7,305 KB | Compiled HTML Help file | 9/14/2007 7:11 AM |
| mysql-workbench-1.1.10-alpha-win32.msi | 9,144 KB | Windows Installer Package | 3/13/2007 8:58 PM |
| mysqlstepinstall.zip | 1,357 KB | Compressed (zipped) Folder | 10/1/2007 8:43 AM |
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| mysql-gui-tools-5.0-r12-win32.msi | 17,81... | Windows Installer Package | 5/8/2007 7:23 PM |
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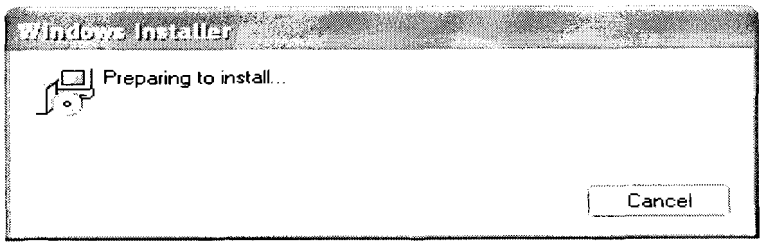
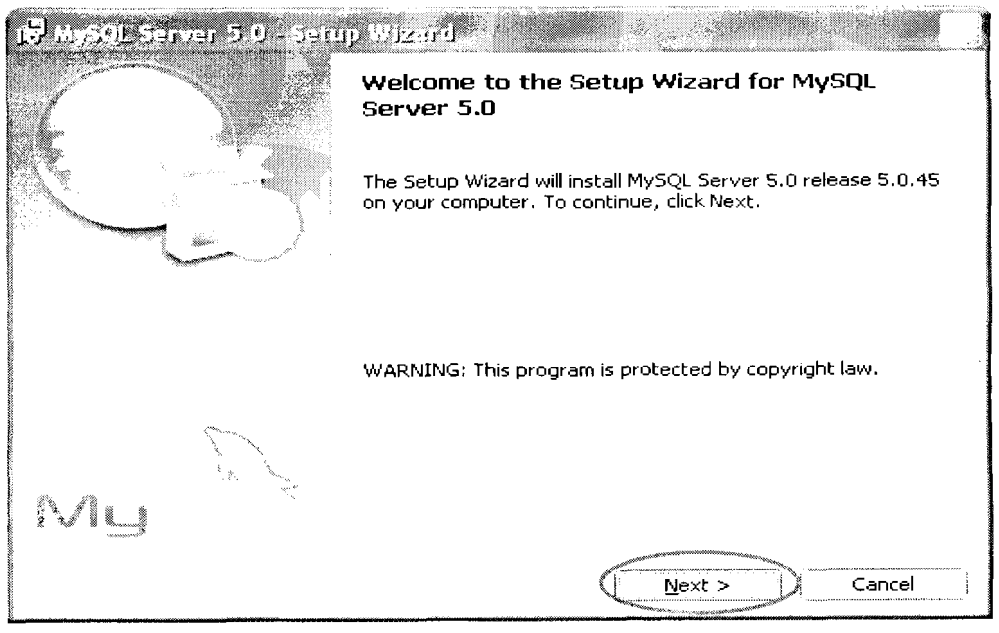
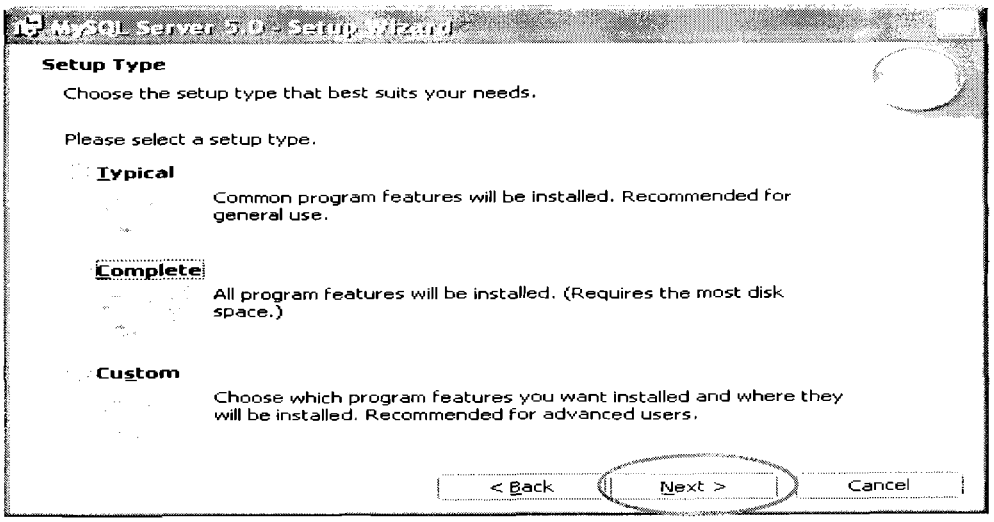
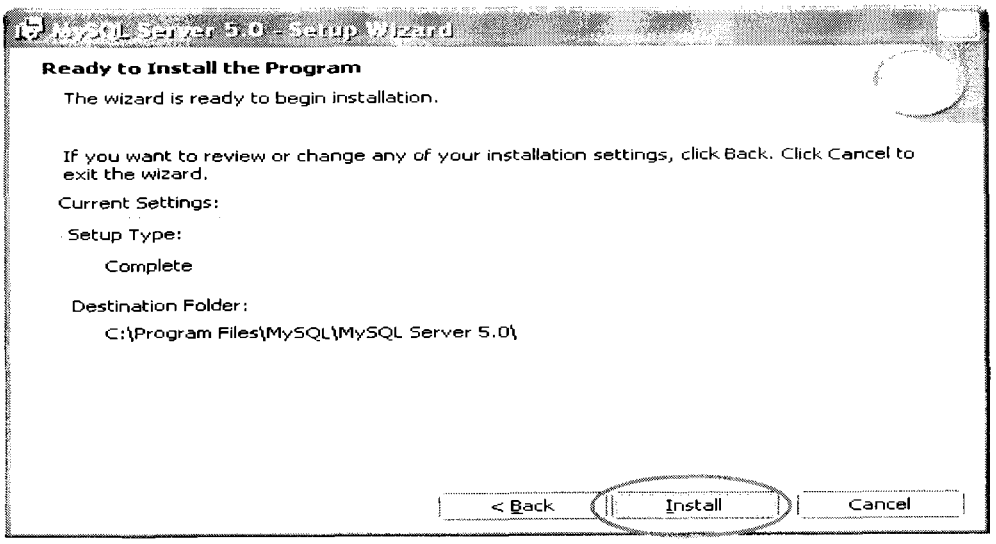
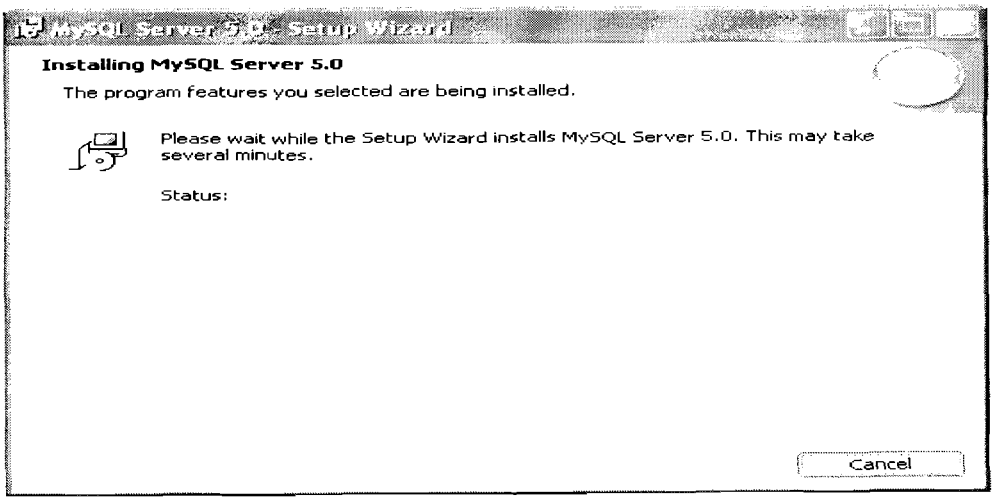
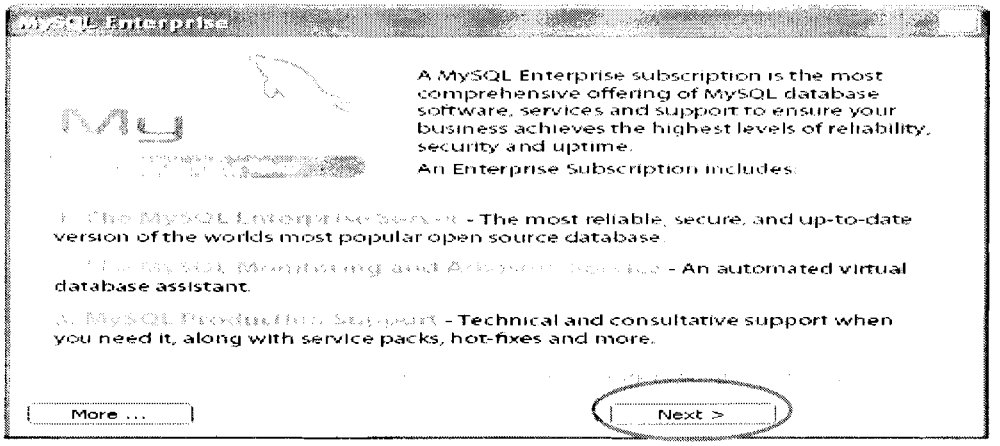


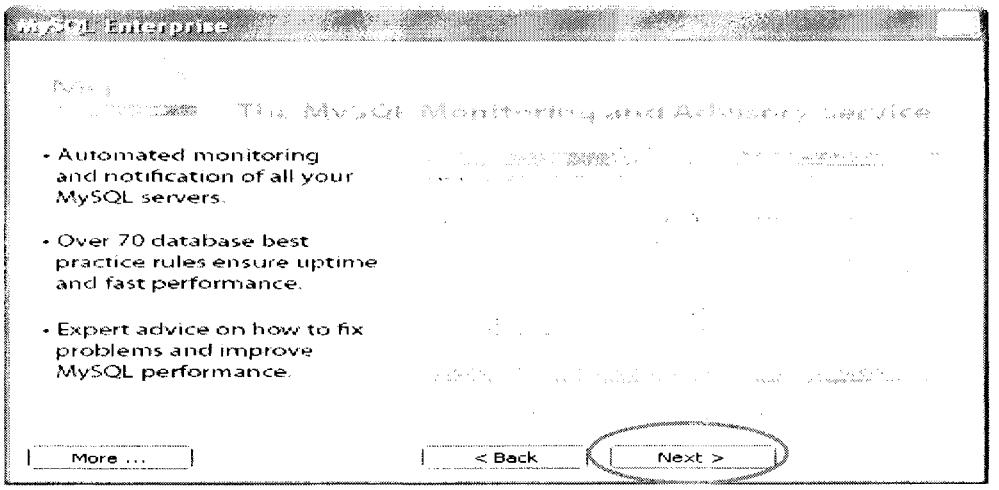



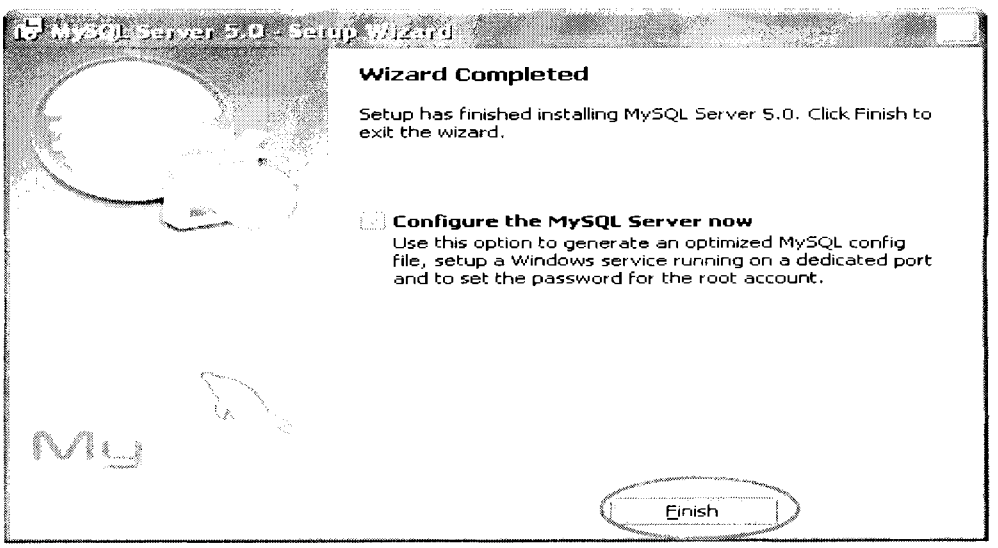

MySQL Server 5.0 - Setup Wizard
Setup Type
Choose the setup type that best suits your needs.
Please select a setup type.
Typical
Common program features will be installed. Recommended for general use.
Complete
All program features will be installed. (Requires the most disk space.)
Custom
Choose which program features you want installed and where they will be installed. Recommended for advanced users.
< Back
Next >
Cancel

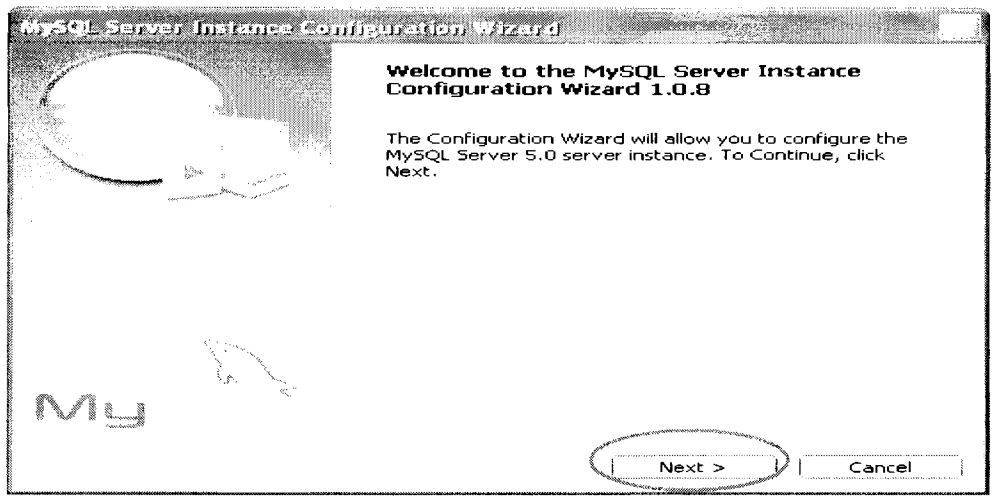

MySQL Server 5.0 - Setup Wizard
Ready to Install the Program
The wizard is ready to begin installation.
If you want to review or change any of your installation settings, click Back. Click Cancel to exit the wizard.
Current Settings:
Setup Type:
Complete
Destination Folder:
C:\Program Files\MySQL\MySQL Server 5.0\
< Back
Install
Cancel

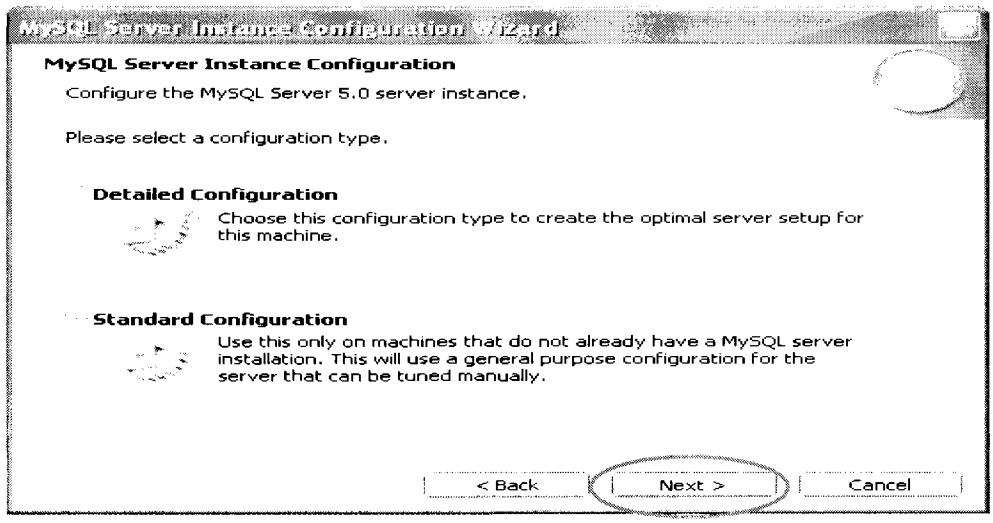

MySQL Server 5.0 - Setup Wizard
Installing MySQL Server 5.0
The program features you selected are being installed.
Please wait while the Setup Wizard installs MySQL Server 5.0. This may take several minutes.
Status:
Cancel

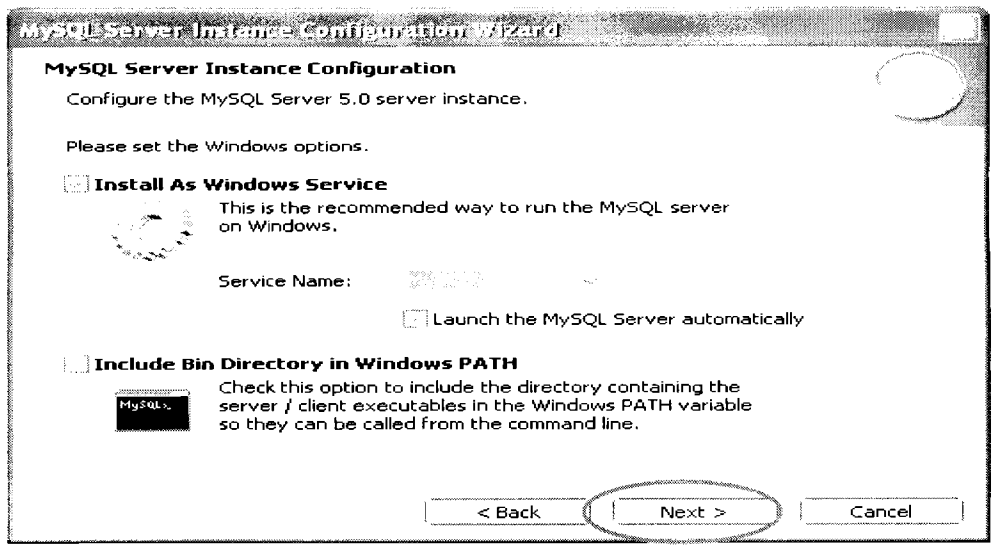

MySQL Enterprise
A MySQL Enterprise subscription is the most comprehensive offering of MySQL database software, services and support to ensure your business achieves the highest levels of reliability, security and uptime.
An Enterprise Subscription includes:
- The most reliable, secure, and up-to-date version of the worlds most popular open source database
- An automated virtual database assistant.
- Technical and consultative support when you need it, along with service packs, hot-fixes and more.
More ...
Next >


MySQL Enterprise
• Automated monitoring and notification of all your MySQL servers.
• Over 70 database best practice rules ensure uptime and fast performance.
• Expert advice on how to fix problems and improve MySQL performance.
More ...
< Back
Next >

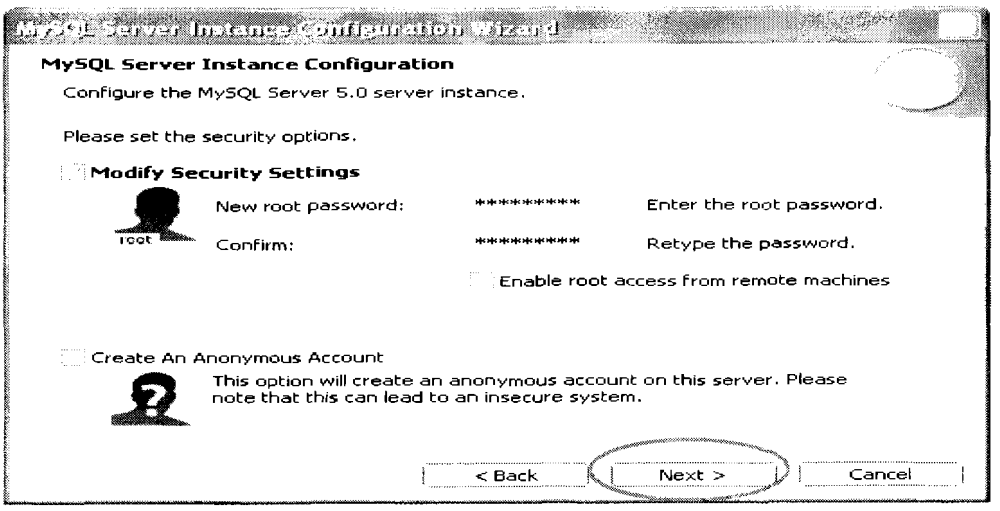

MySQL Server 5.0 - Setup Wizard
Wizard Completed
Setup has finished installing MySQL Server 5.0. Click Finish to exit the wizard.
Configure the MySQL Server now
Use this option to generate an optimized MySQL config file, setup a Windows service running on a dedicated port and to set the password for the root account.
Finish

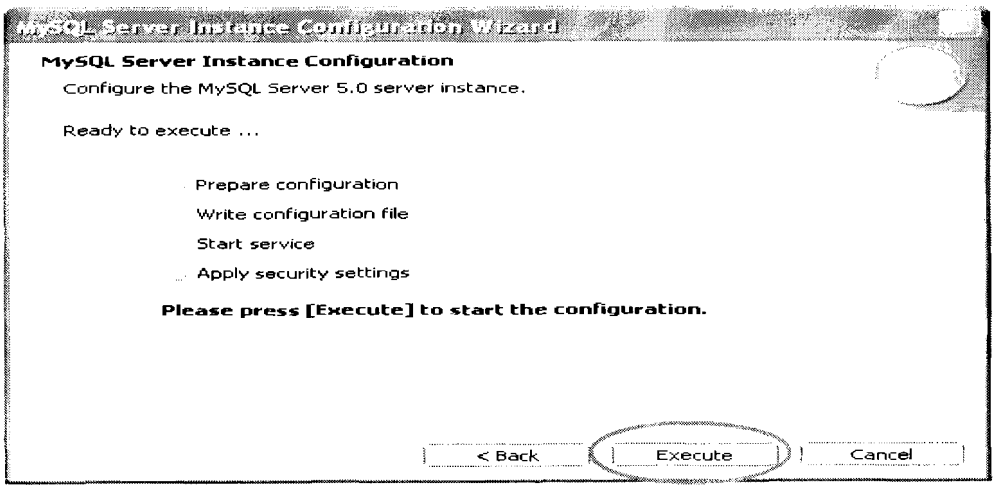

MySQL Server Instance Configuration Wizard
Welcome to the MySQL Server Instance Configuration Wizard 1.0.8
The Configuration Wizard will allow you to configure the MySQL Server 5.0 server instance. To Continue, click Next.
Next >
Cancel

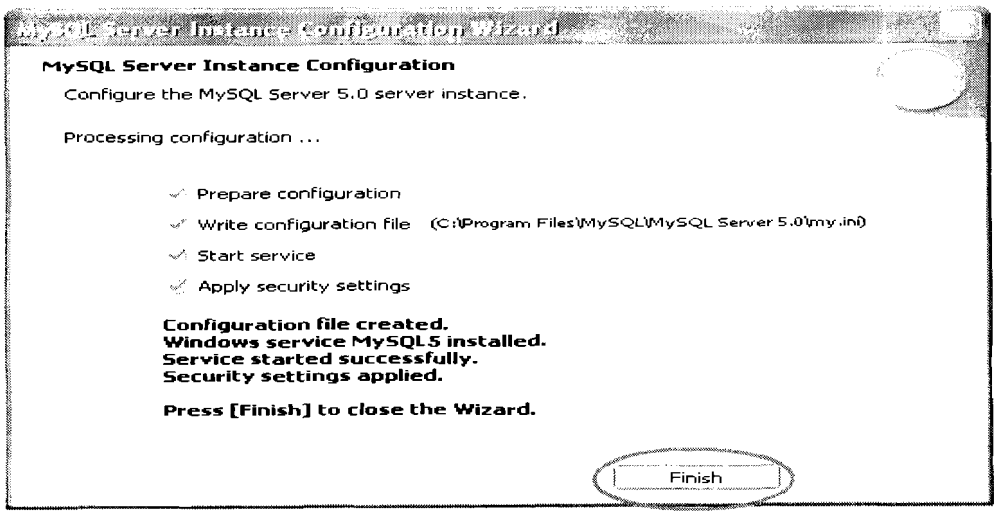

MySQL Server Instance Configuration Wizard
MySQL Server Instance Configuration
Configure the MySQL Server 5.0 server instance.
Please select a configuration type.
Detailed Configuration
Choose this configuration type to create the optimal server setup for this machine.
Standard Configuration
Use this only on machines that do not already have a MySQL server installation. This will use a general purpose configuration for the server that can be tuned manually.
< Back
Next >
Cancel


MySQL Server Instance Configuration Wizard
MySQL Server Instance Configuration
Configure the MySQL Server 5.0 server instance.
Please set the Windows options.
Install As Windows Service
This is the recommended way to run the MySQL server on Windows.
Service Name:
Launch the MySQL Server automatically
Include Bin Directory in Windows PATH
Check this option to include the directory containing the server / client executables in the Windows PATH variable so they can be called from the command line.
< Back
Next >
Cancel

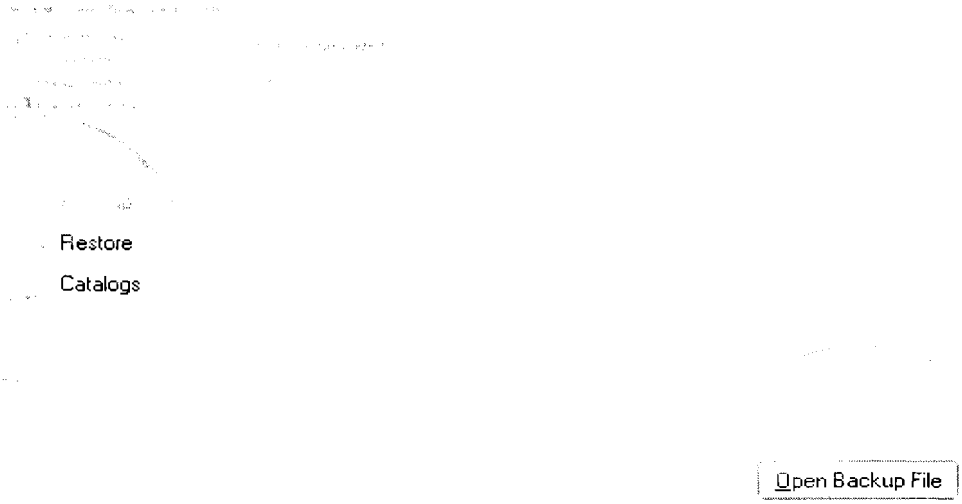
Note: Please set password as [123].



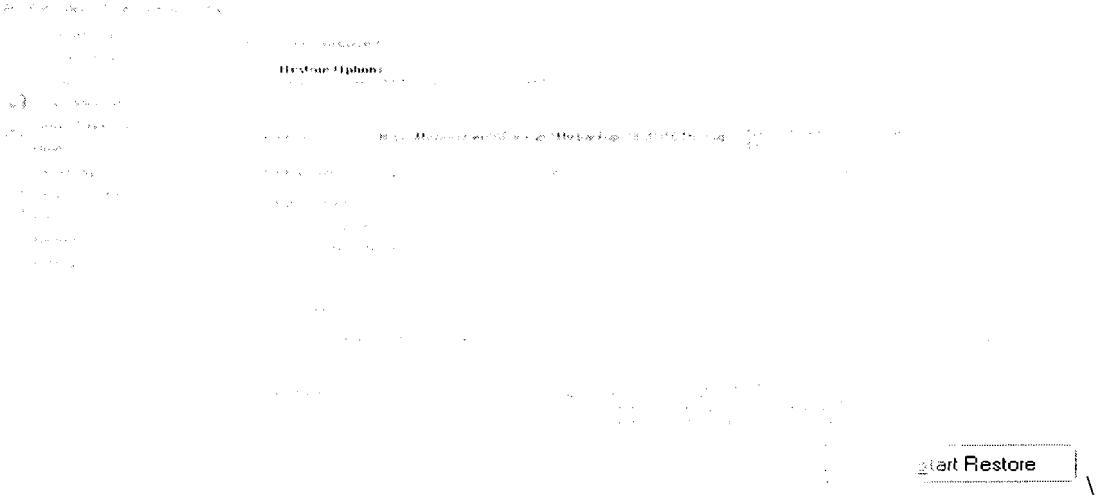



- Open: MySQL Administrator
- Enter Password: 123
- Click on the "Restore" Button from the left menu. Next, press the "Open Backup File" button at the bottom of your screen. Locate and open from the cd [internship.sql] file.




- The MySQL Administrator application will automatically detect which database should be restored. All you have to do is press the "Start Restore" button to initiate the backup restore.

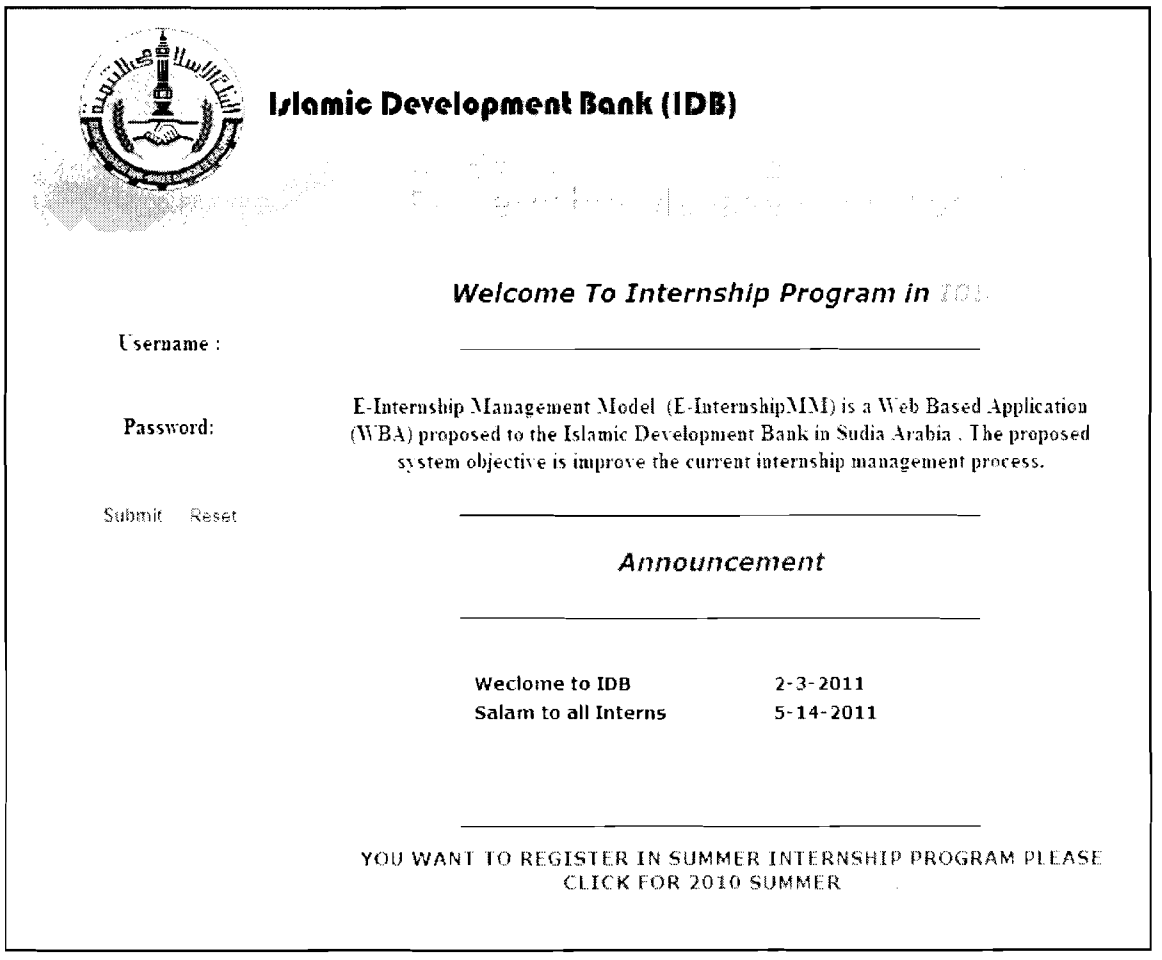


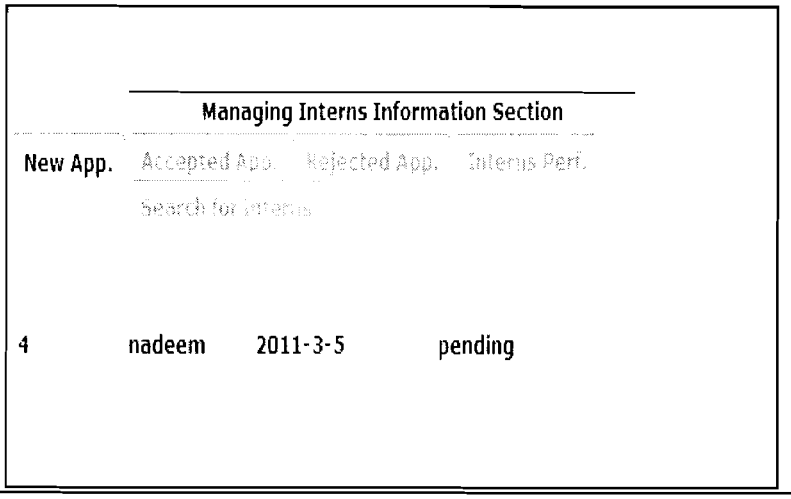

- Open your Inter Browser and key in this URL "http://localhost:8080/IDB/index.jsp"

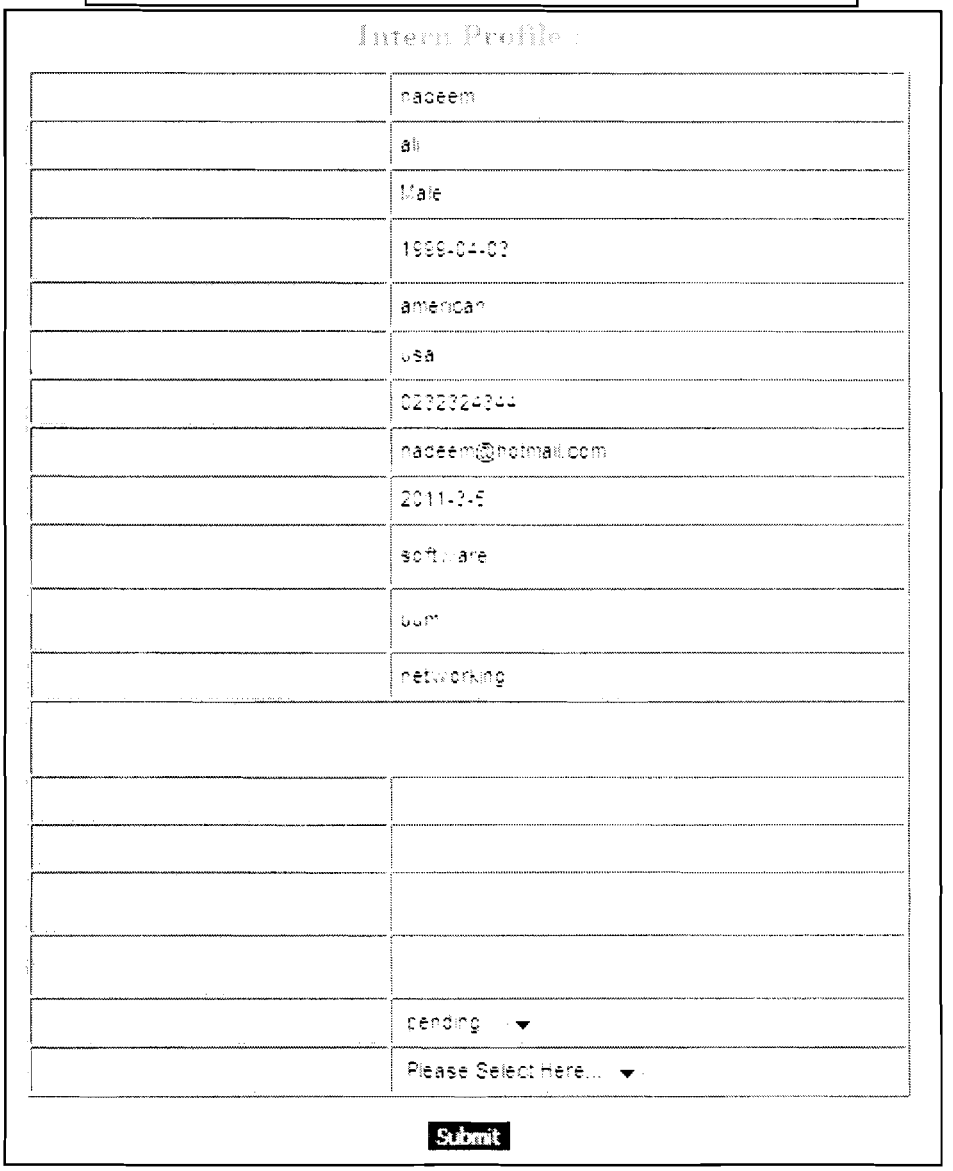
## 8.2. APPENDIX B: USER MANUAL

| Username | Password | Account Type |
|---|---|---|
| admin | admin | admin |
| abdullah | 111 | HR staff |
| Ahmed | 222 | Supervisor |
| Nur | 333 | Inventory Staff |

**Home Page:**

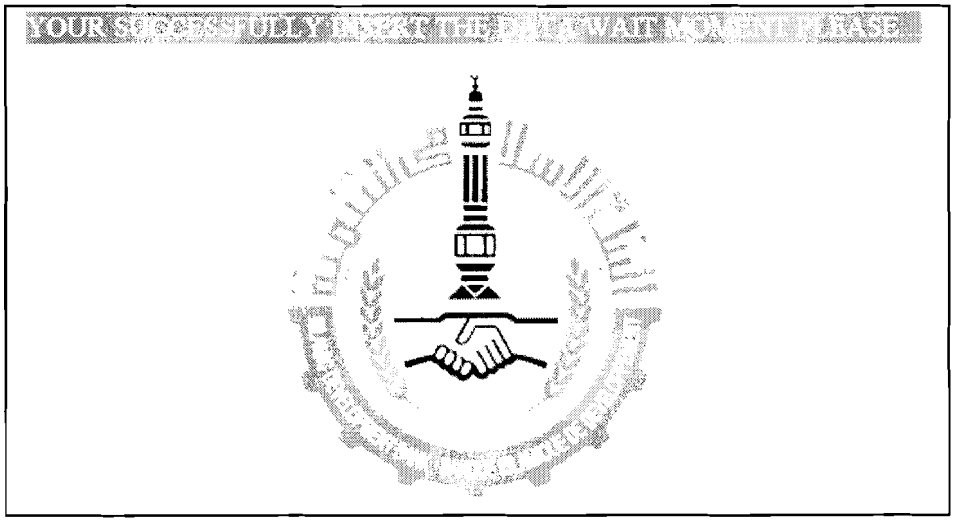



Managing Interns Information Section
New App.
Accepted App.
Rejected App.
Interns Perf.
Search for Interns
4 nadeem 2011-3-5 pending


Intern Profile :
nadeem
ali
Male
1989-04-03
american
usa
nadeem@hotmail.com
2011-3-5
networking
pending
Please Select Here...
Submit

| | |
|---|---|
| | 222 |
| | 4 month |
| | 2011-8-5 |
| | 2012-04-02 |
| | Accepted |
| | Department |

Submit



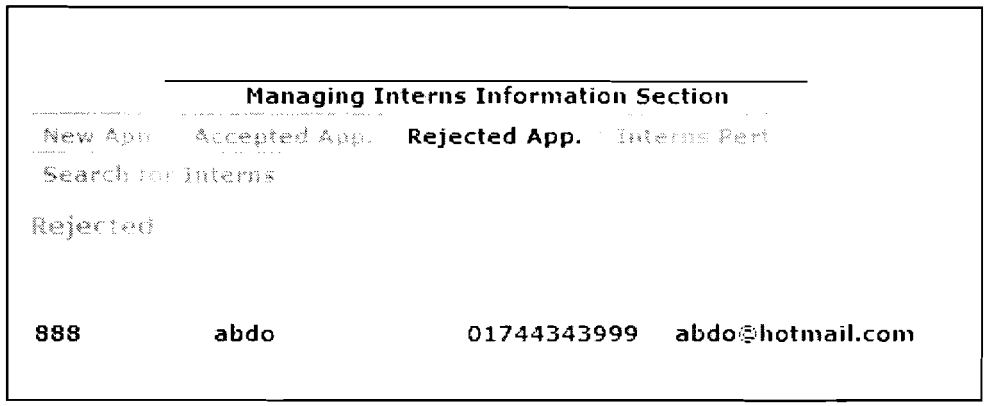
Managing Interns Information Section

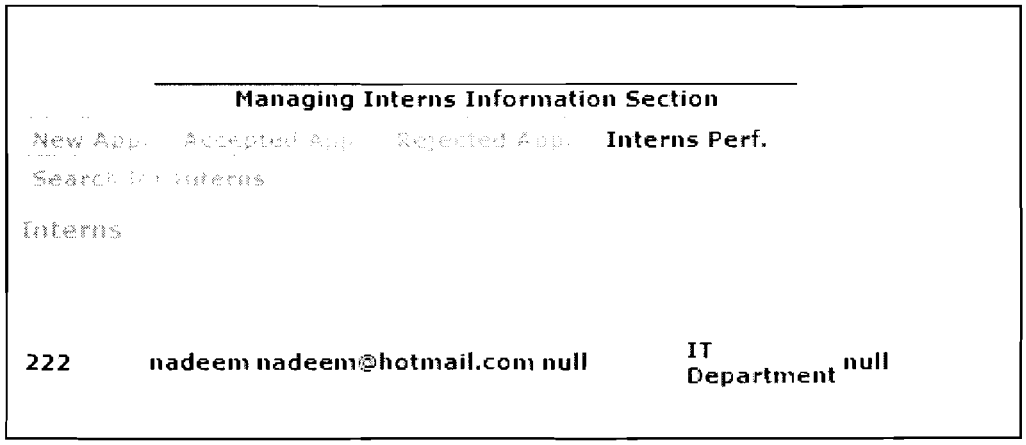
New App. Accepted App. Rejected App. Interns Part

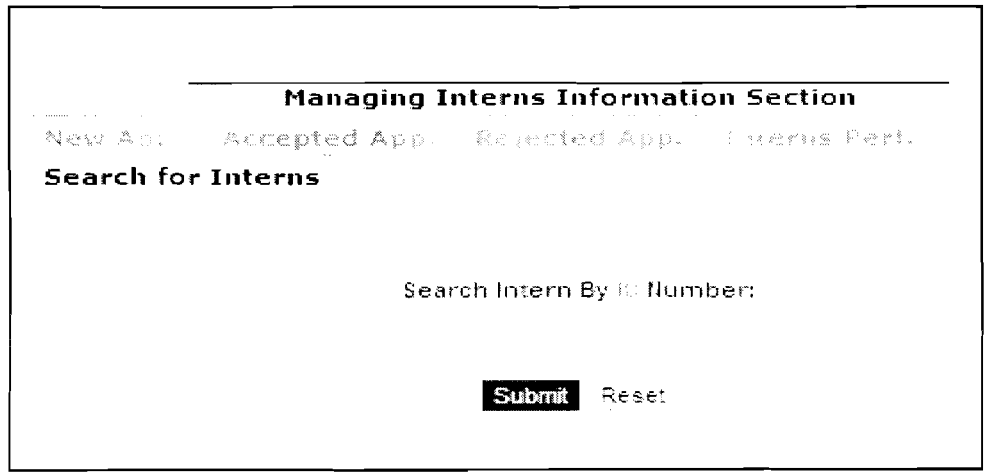
Search for Interns

Accepted

| | | | |
|---|---|---|---|
| 222 | nadeem | 0232324344 | nadeem@hotmail.com |

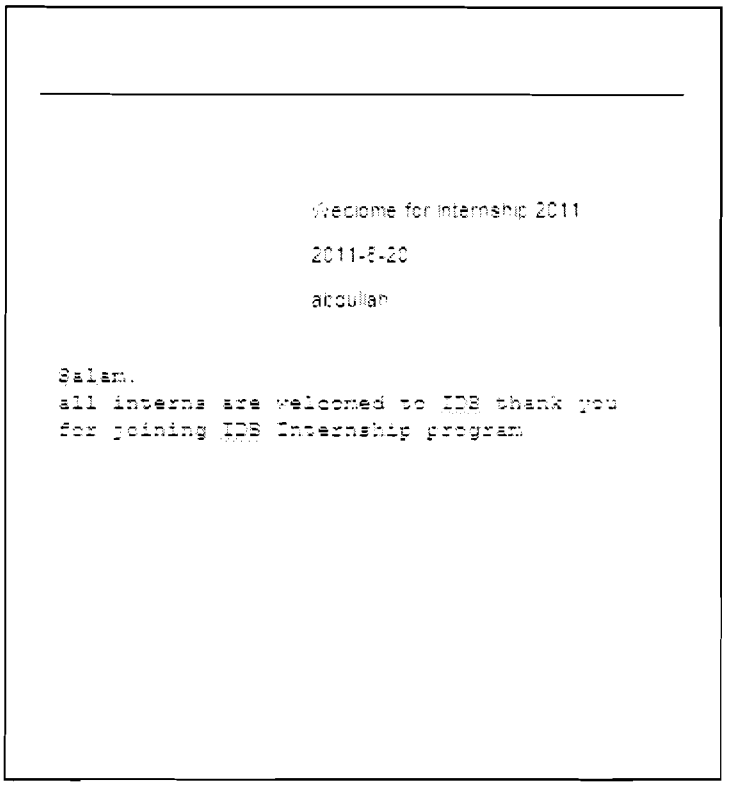

Managing Interns Information Section
New App.
Accepted App.
Rejected App.
Interns Perf.
Search for Interns
Rejected
888 abdo 01744343999 abdo@hotmail.com


Managing Interns Information Section
New App.
Accepted App.
Rejected App.
Interns Perf.
Search for Interns
Interns
222 nadeem nadeem@hotmail.com null IT Department null


Managing Interns Information Section
New App.
Accepted App.
Rejected App.
Interns Perf.
Search for Interns
Search Intern By ID Number:
Submit
Reset

| | |
|---|---|
| | 222 |
| | naceem |
| | ali |
| | Male |
| | 1999-04-02 |
| | american |
| | usa |
| | 022333444 |
| | naceem@hotmail.com |
| | 2011-3-5 |
| | 4 month |
| | 2011-09-05 |
| | 2012-04-02 |
| | software |
| | [illegible] |
| | Accepted |
| | networking |
| | null |
| | null |
| | IT Department |

Back To Search


Weclome for internship 2011
2011-6-20
abdullah
Salam.
all interns are welcomed to IDB thank you
for joining IDB Internship program


892 Weclome to IDB 2-3-2011
890 Salam to all Interns 5-14-2011
893 Weclome for Internship 2011 2011-6-20

Welcome for internship 2011

2011-6-20

abdullah

Salam.
all interns are welcomed to IDB thank you for joining IDB Internship program.
the Internship will start on July 2011.check your e-mails for further information. see you soon

YOUR SUCCESSFULLY UPDATE THE DATA WAIT MOMENT PLEASE..

Delete Announcement

Welcome for internship 2011

2011-6-20

abdullah

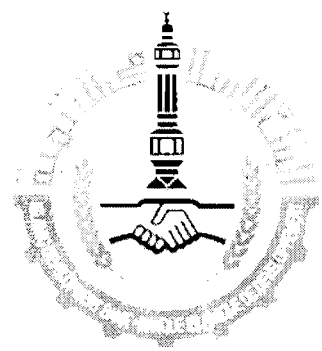
Salam.
all interns are welcomed to IDB thank you for joining IDB Internship program.
the Internship will start on July 2011.check your e-mails for further information. see you soon

Delete

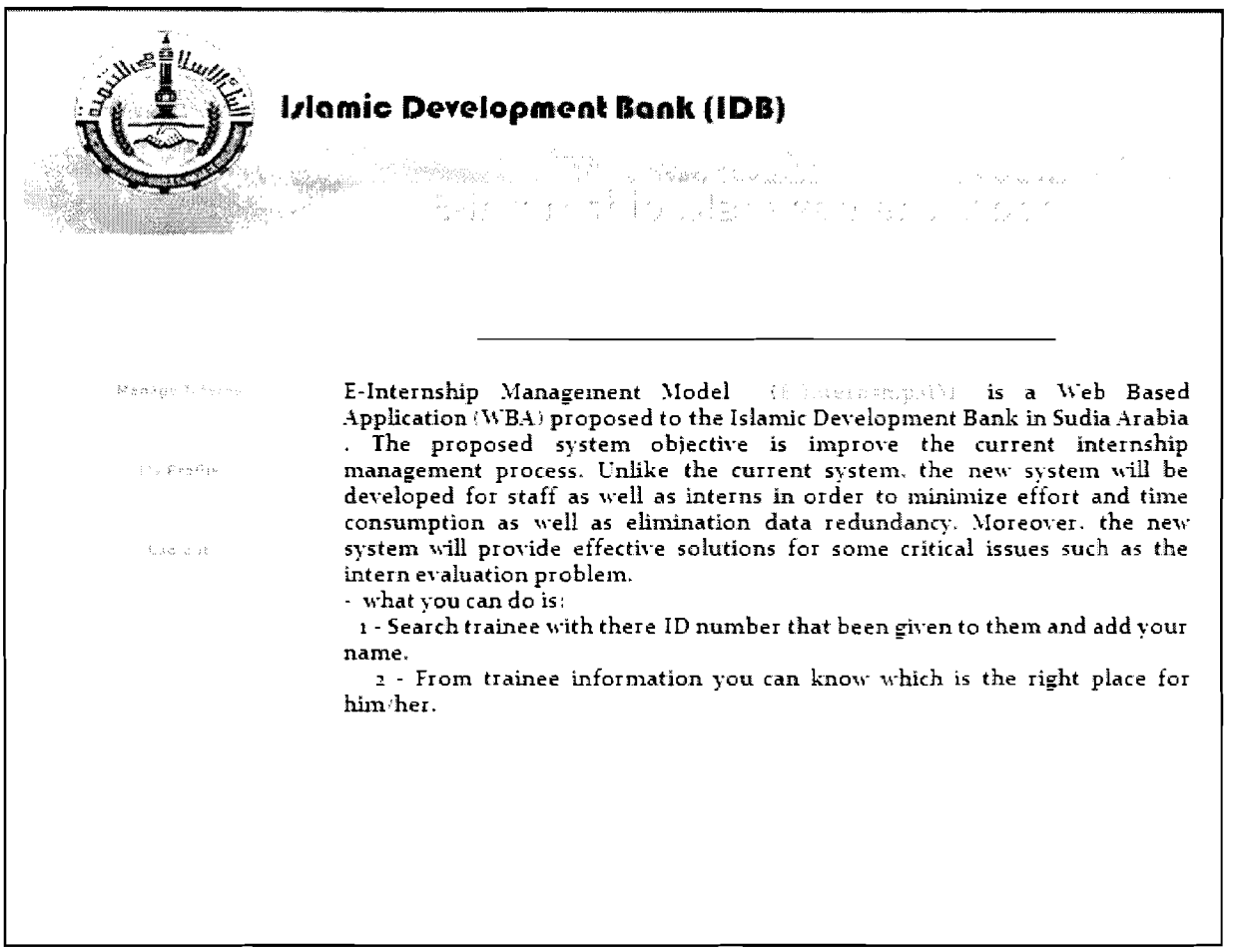
Delete Announcement

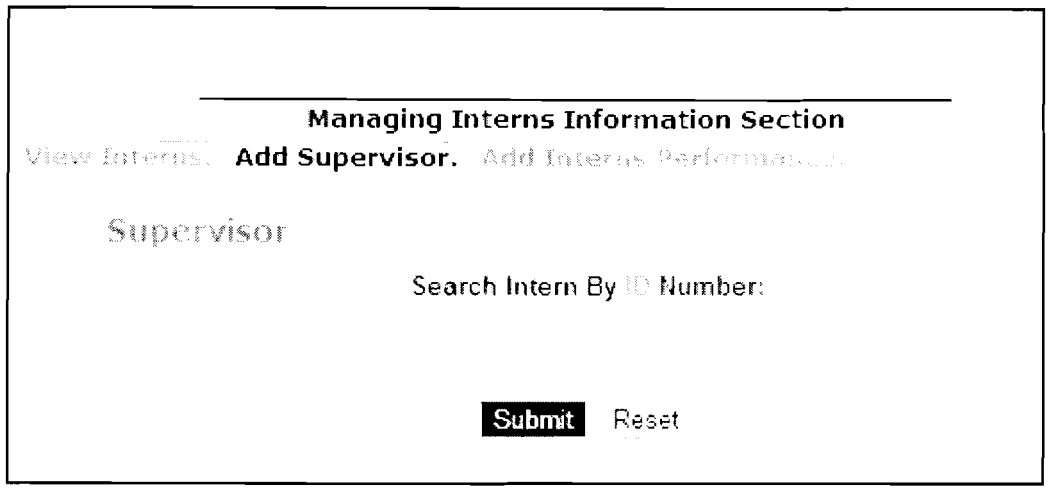
Welcome for internship 2011

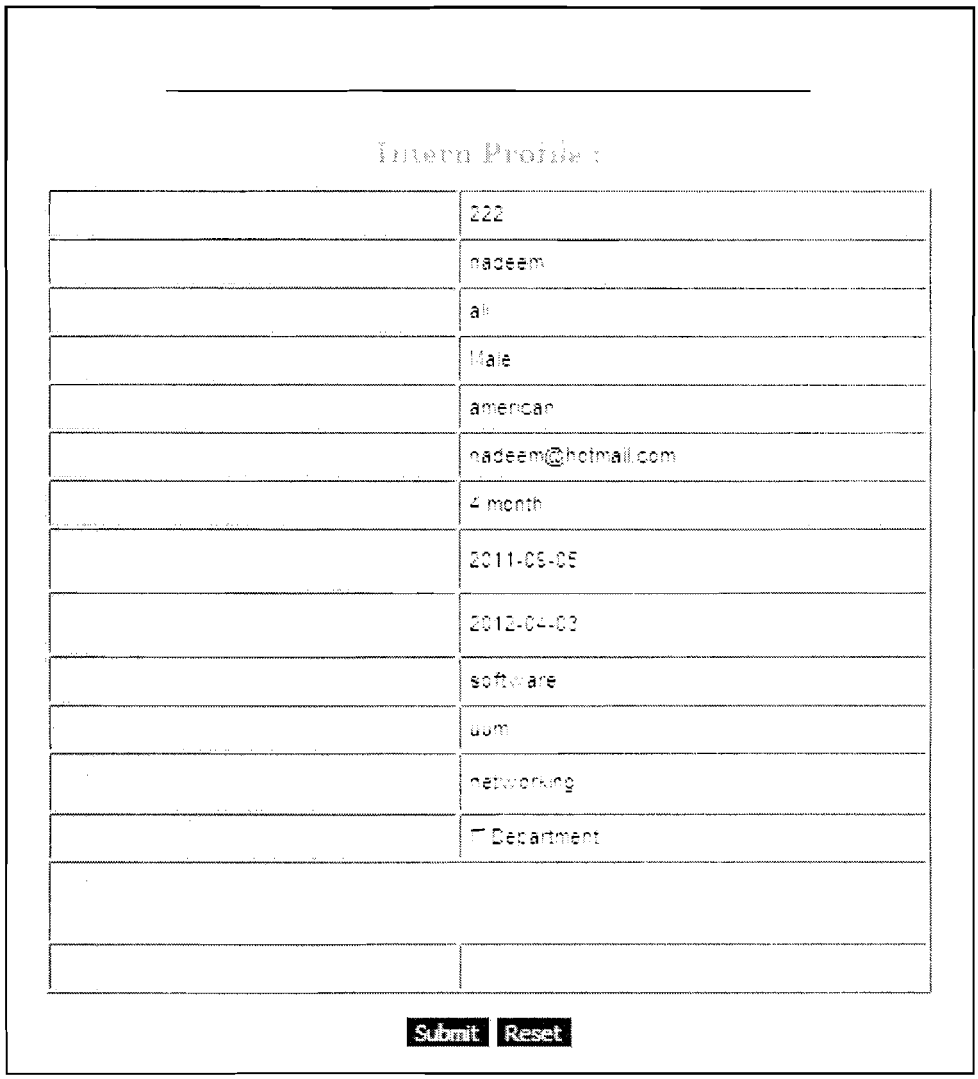
Cancel

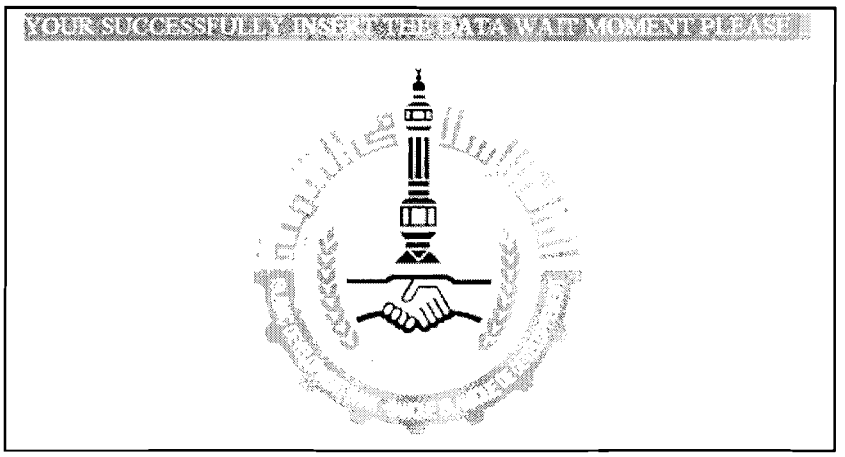


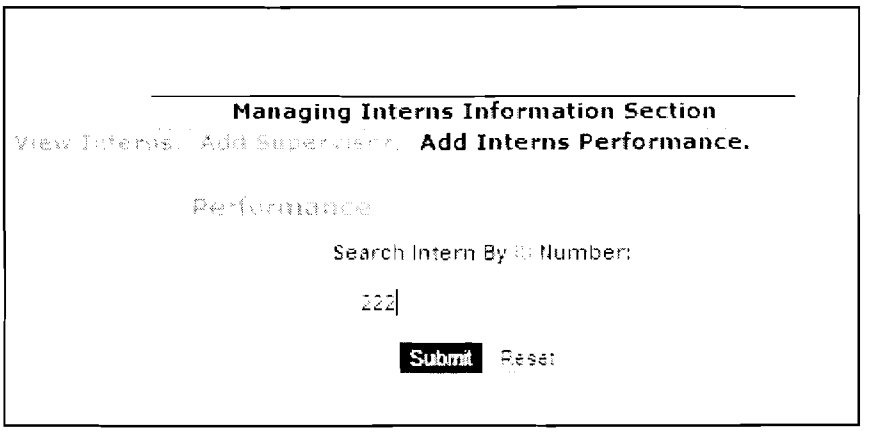
**Supervisor Homepage:**

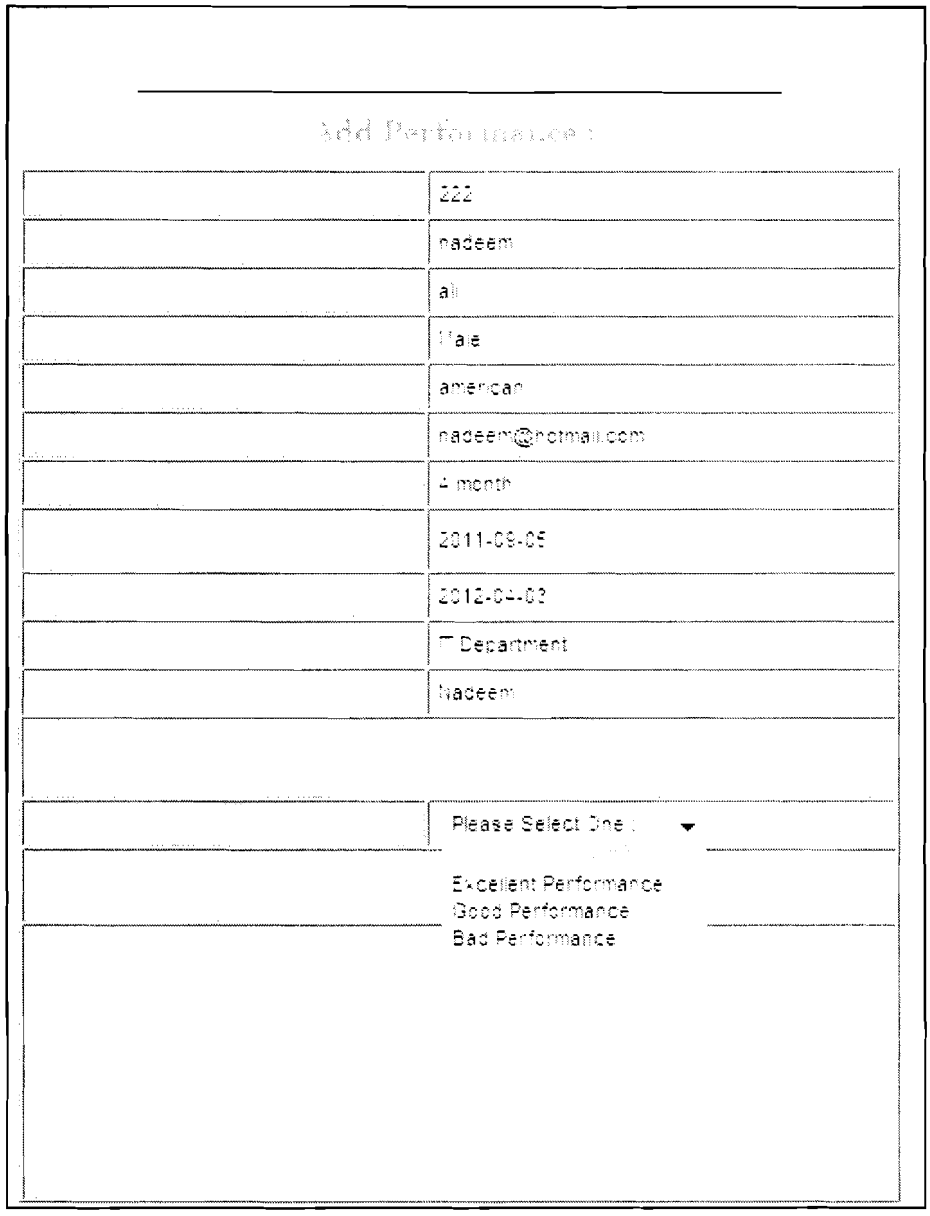




Managing Interns Information Section
View Interns. Add Supervisor. Add Interns Performance
Supervisor
Search Intern By ID Number:
Submit
Reset

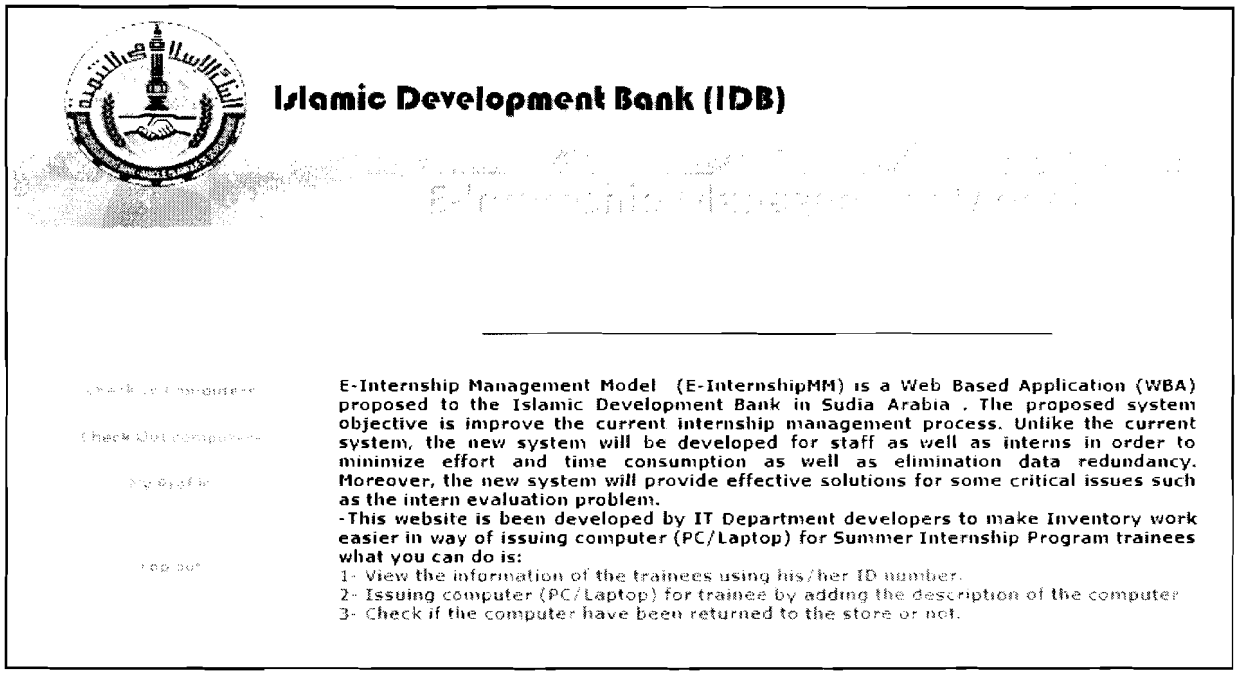

Intern Profile :
222
nadeem
ali
Male
american
nadeem@hotmail.com
4 month
2011-05-05
2012-04-03
software
uom
networking
IT Department
Submit
Reset

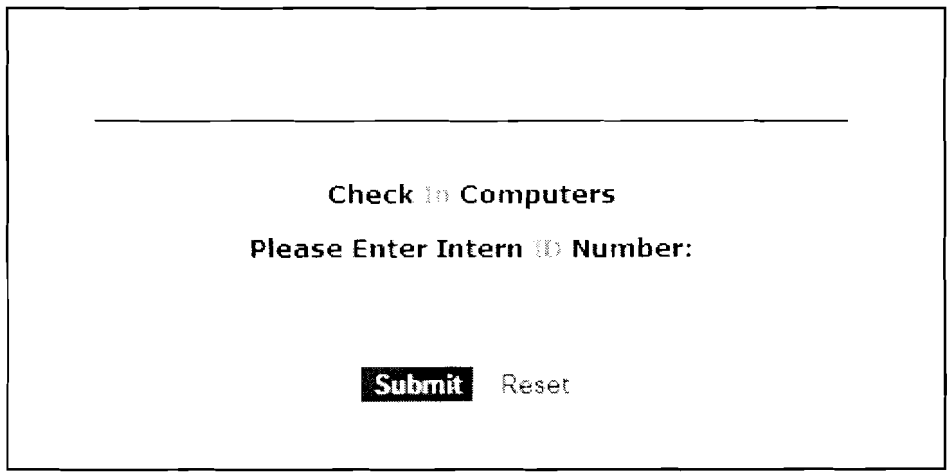

YOUR SUCCESSFULLY INSERTED DATA WAS MOMENTARILY


Managing Interns Information Section
View Interns
Add Supervisors
Add Interns Performance.
Performance
Search Intern By ID Number:
222
Submit
Reset


Add Performance :
222
nadeem
ali
Male
american
nadeem@hotmail.com
4 month
2011-08-05
2012-04-03
IT Department
Nadeem
Please Select One :
Excellent Performance
Good Performance
Bad Performance

**Inventory Homepage:**



## Interns Information

| | |
|---|---|
| | 222 |
| | nadeem |
| | ali |
| | IT Department |
| | Nadeem |

## Computer Information

Please Enter the Computer given to the Interns details

| | |
|---|---|
| | Please Select Here |
| | |
| | |
| | 1.1<br>2.1 |

Submit Reset

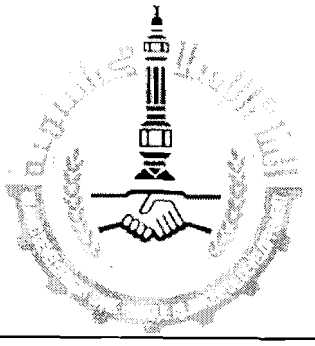
## Computer Information

Please Enter the Computer given to the Interns Details

| | |
|---|---|
| | Laptop |
| | Dell-Inspiron |
| | 22-333-666-76-8-956-2 |
| | 1.1 Bag<br>2.1 Mouse |

Submit Reset

YOUR SUCCESSFULLY INSERT THE DATA WAIT MOMENT PLEASE!!!



---

Check OUT Computers

Please Enter Intern ID Number :

Submit Reset

## Intern and Computer Information

| | |
|---|---|
| | 222 |
| | naceem |
| | al |
| | IT Department |
| | Nadeem |
| | Laptop |
| | Dell-Inspiron |
| | 22-222-888-78-8-888- |
| | 1.1 Bag<br>2.1 Mouse |
| | |
| | |
| | |

Submit Reset

| | |
|---|---|
| | |
| | 2011-6-20 |
| | Nur |

Submit Reset