

COURSE CONTENT APPLICATION: A CASE OF PRINCIPLES OF STATISTICS

**A project submitted to Dean of Postgraduate Studies and Research in partial
Fulfillment of the requirement for the degree
Master of Science of Information and Communication Technology
Universiti Utara Malaysia**

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Abstract

The electronic learning environment is defining that system use modern ICT technology to support an academic education effort. This project discusses the content development of Principles of Statistics. The main problem that face the students with the current learning system for the Principles of Statistics course, are the inability to communicate with a lecturer because of size class, and lack of appropriate educational tools. Current tools used in the educational process are books and power point slides. Therefore, the student's potential cannot be fully utilized without the current modern tools to increase their capacity in the learning. The main objective of the project is to identify the requirements for web-based system to learn Principles of Statistics (PSS) Course. The general methodology used in this study and the Rational Unified Process (RUP). The proposed web application has been tested based on the usability, the UUM students' acceptance for using this system, which was (Mean = 4.30) by students.

Dedication

I dedicate this work to the spirit of my father and my brothers, may Allah have mercy, and to my mother, to my dear wife, my beloved kids Ali and Zaynab and to my family; who spared no effort helping me during my studies.

I would like to say thank you very much to everyone who gave me a minute of his/her time to help me finish my work. I would like to thank the staff of UUM for their kind help and endless support, especially MayBank residential hall unit.

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TABLES OF CONTENT

| | |
|------------------------|------|
| PERMISSION TO USE..... | ii |
| ABSTRACT..... | iii |
| DEDICATION..... | iv |
| ACKNOWLEDGMENTS..... | v |
| TABLE OF CONTENTS..... | vi |
| LIST OF TABLE..... | xi |
| LIST OF FIGURES | xiii |
| ABBREVIATIONS..... | xvi |

Chapter 1

Introduction

| | |
|--|----|
| 1.0 Introduction..... | 01 |
| 1.1 Problem Statement | 02 |
| 1.2 Research Questions | 03 |
| 1.3 Research Objectives..... | 03 |
| 1.4 Limitation and Scope | 04 |
| 1.5 Research Significant | 04 |
| 1.6 Structure of the Project Content | 05 |
| 1.7 Summary | 05 |

Chapter 2

Literature Review

| | |
|---|----|
| 2.0 Introduction | 06 |
| 2.1 E-Learning..... | 06 |
| 2.2 Learners Need and Usability Requirements..... | 14 |
| 2.2.1 Term Usability..... | 14 |
| 2.2.2 Previous Studies Used Usability Requirements..... | 15 |
| 2.3 Courseware Development..... | 18 |
| 2.4 Summary..... | 21 |

Chapter 3

Research Methods

| | |
|--|----|
| 3.0 Introduction | 22 |
| 3.1 Awareness of Problem | 23 |
| 3.1.1 Gathering of data | 23 |
| 3.1.2 Interviewing..... | 23 |
| 3.1.3 The current process..... | 24 |
| 3.1.4 The result of the interview..... | 24 |
| 3.2 Suggestions | 27 |
| 3.3 Development | 27 |
| 3.3.1 Phases of Development in RUP | 28 |
| 3.3.1.1 The First phase: Inception..... | 28 |

| | |
|--|----|
| 3.3.1.2 The Second Phase: Elaboration..... | 28 |
| 3.3.1.3 The Third Phase: Construction..... | 29 |
| 3.3.1.4 The Fourth Phase: Transition | 29 |
| 3.3.2 Features of RUP..... | 30 |
| 3.3.2.1 The Development of Iterative..... | 30 |
| 3.3.2.2 Advantages of Iterative Development..... | 30 |
| 3.3.2.3 Iteration..... | 30 |
| 3.4 Evaluation | 31 |
| 3.5 Conclusion..... | 31 |
| 3.6 Summary | 31 |

Chapter 4

System Analysis

| | |
|---|----|
| 4.0 Introduction | 32 |
| 4.1 Proposed System | 32 |
| 4.2 Requirements of the System (Functional and Non-Functional)..... | 32 |
| 4.2.1 Functional Requirements..... | 32 |
| 4.2.2 Non-Functional Requirements..... | 34 |
| 4.3 Design of the System | 35 |
| 4.3.1 Scenarios..... | 35 |
| 4.3.1.1 Lecturer of Course | 36 |
| 4.3.1.2 Student of Course..... | 36 |

| | | |
|----------|--|----|
| 4.3.2 | Use Case Diagram..... | 36 |
| 4.3.3 | Use Case Specification..... | 39 |
| 4.3.3.1 | Use Case Specification for Login..... | 39 |
| 4.3.3.2 | Use Case Specification for View Lesson..... | 40 |
| 4.3.3.3 | Use Case Specification for View Report..... | 41 |
| 4.3.3.4 | Use Case Specification for Add Lesson..... | 42 |
| 4.3.3.5 | Use Case Specification for Delete Lesson..... | 43 |
| 4.3.3.6 | Use Case Specification for Answer Questions..... | 44 |
| 4.3.3.7 | Use Case Specification for Add Quiz..... | 45 |
| 4.3.3.8 | Use Case Specification for Download Lesson..... | 46 |
| 4.3.3.9 | Use Case Specification for Search Lesson..... | 47 |
| 4.3.3.10 | Use Case Specification for Ask question..... | 48 |
| 4.3.3.11 | Use Case Specification for Submit Online Quiz..... | 49 |
| 4.3.4 | Sequence Diagram..... | 50 |
| 4.3.5 | Collaboration Diagram..... | 63 |
| 4.3.6 | Class Diagram..... | 63 |
| 4.4 | Implementation | 64 |
| 4.4.1 | Coding..... | 64 |
| 4.4.2 | Testing..... | 64 |
| 4.5 | Summary | 75 |

Chapter 5

Evaluation of System

| | |
|--|----|
| 5.0 Introduction | 76 |
| 5.1 Evaluation of the Results | 76 |
| 5.2 Description and Analysis of data | 76 |
| 5.2.1 Reliability Analysis..... | 90 |
| 5.3 Summary | 90 |

Chapter Six

Conclusion and Recommendation

| | |
|-----------------------------------|------------|
| 6.0 Introduction | 91 |
| 6.1 Conclusion of the Study..... | 91 |
| 6.2 Study Contributions..... | 91 |
| 6.3 Problems and Limitations..... | 92 |
| 6.4 Future Works..... | 92 |
| 6.5 Summary..... | 93 |
| REFERENCES..... | 94 |
| Appendix A | 100 |
| Appendix B..... | 104 |
| Appendix C..... | 110 |

LIST OF TABLES

| | | |
|-----------|---|----|
| Table 2.1 | Comparison Between E-Learning and Traditional Classroom Learning..... | 8 |
| Table 3.1 | Frequency for question 1..... | 24 |
| Table 3.2 | Frequency for question 2..... | 25 |
| Table 3.3 | Frequency for question 3..... | 25 |
| Table 3.4 | Frequency for question 4..... | 26 |
| Table 4.1 | Functional requirements..... | 33 |
| Table 4.2 | Non-functional requirements..... | 34 |
| Table 5.1 | Frequency for Gender..... | 77 |
| Table 5.2 | Frequency for Age..... | 77 |
| Table 5.3 | Frequency for College..... | 78 |
| Table 5.4 | Item Statistics of PSS..... | 79 |
| Table 5.5 | Frequency for Q1..... | 79 |
| Table 5.6 | Frequency for Q2..... | 80 |
| Table 5.7 | Frequency for Q3..... | 81 |
| Table 5.8 | Frequency for Q4..... | 82 |
| Table 5.9 | Frequency for Q5..... | 83 |

| | | |
|------------|---------------------------|----|
| Table 5.10 | Frequency for Q6..... | 84 |
| Table 5.11 | Frequency for Q7..... | 85 |
| Table 5.12 | Frequency for Q8..... | 86 |
| Table 5.13 | Frequency for Q9..... | 87 |
| Table 5.14 | Frequency for Q10..... | 88 |
| Table 5.15 | Reliability Analysis..... | 90 |

LIST OF FIGURES

| | |
|--|----|
| Figure2.1: The Overall Architecture of Web-Base Animation..... | 11 |
| Figure2.2: Overview Learning Module..... | 12 |
| Figure 3.1: General Research Methodology | 22 |
| Figure 3.2: Rational Unified Process..... | 27 |
| Figure 3.3: The Stage and the Project Milestone..... | 30 |
| Figure 4.1: Use Case Diagram for Web-Based System to Learn Principles of Statistics..... | 38 |
| Figure 4.2: Use Case for Login..... | 39 |
| Figure 4.3: Use Case for View Lesson..... | 40 |
| Figure 4.4: Use Case for View Report..... | 41 |
| Figure 4.5: Use Case for Add Lesson..... | 42 |
| Figure 4.6: Use Case for Add Lesson. | 43 |
| Figure 4.7: Use Case for Answer Questions..... | 44 |
| Figure 4.8: Use Case for Add Quiz..... | 45 |
| Figure 4.9: Use Case for Download Lesson..... | 46 |
| Figure 4.10: Use Case for Search Lesson..... | 47 |
| Figure 4.11: Use Case for Ask question..... | 48 |
| Figure 4.12: Use Case for Submit Online Quiz..... | 49 |
| Figure 4.13: User (Lecturer, Student) Login Sequence Diagram..... | 51 |
| Figure 4.14: Add Lesson Sequence Diagram..... | 52 |
| Figure 4.15:Upload Lesson Sequence Diagram..... | 53 |
| Figure 4.16: Delete Lesson Sequence Diagram..... | 54 |

| | |
|---|----|
| Figure 4.17: View Report Sequence Diagram..... | 55 |
| Figure 4.18: Answer Question Sequence Diagram..... | 56 |
| Figure 4.19: View Lesson Sequence Diagram. | 57 |
| Figure 4.20: Add Quiz Sequence Diagram..... | 58 |
| Figure 4.21: Download Lesson Sequence Diagram..... | 59 |
| Figure 4.22: Search Lesson Sequence Diagram..... | 60 |
| Figure 4.23: Ask Question Sequence Diagram..... | 61 |
| Figure 4.24: On-line Quiz Sequence Diagram..... | 62 |
| Figure 4.25: Class Diagram for Web-Based System to Learn Principles of Statistics..... | 63 |
| Figure 4.26: Main Page..... | 65 |
| Figure 4.27: Login Page..... | 65 |
| Figure 4.28: Lecturer Home Page..... | 66 |
| Figure 4.29: Lecturer Add Lesson..... | 66 |
| Figure 4.30: Lecturer Add Text..... | 67 |
| Figure 4.31: Lecturer Upload Video..... | 67 |
| Figure 4.32: Lecturer Upload Animation..... | 68 |
| Figure 4.33: Lecturer Manage Lesson..... | 68 |
| Figure 4.34: Lecturer Answer Question..... | 69 |
| Figure 4.35: Lecturer View Report..... | 69 |
| Figure 4.36: Lecturer Add Quiz..... | 70 |
| Figure 4.37: Student Home Page..... | 70 |
| Figure 4.38: Student View Lesson..... | 71 |
| Figure 4.39: Student View Video..... | 72 |

| | |
|--|----|
| Figure 4.40: Student View Animation..... | 72 |
| Figure 4.41: Student Search Lesson..... | 73 |
| Figure 4.42: Student Ask Question..... | 73 |
| Figure 4.43: Student Submit Quiz..... | 74 |
| Figure 4.44: Quiz Page..... | 74 |
| Figure 5.1: Gender..... | 77 |
| Figure 5.2: Age..... | 78 |
| Figure 5.3: College..... | 78 |
| Figure 5.4: (PSS) Q1..... | 80 |
| Figure 5.5: (PSS) Q2..... | 81 |
| Figure 5.6: (PSS) Q3..... | 82 |
| Figure 5.7: (PSS) Q4..... | 83 |
| Figure 5.8: (PSS) Q5..... | 84 |
| Figure 5.9: (PSS) Q6..... | 85 |
| Figure 5.10: (PSS) Q7..... | 86 |
| Figure 5.11: (PSS) Q8..... | 87 |
| Figure 5.12: (PSS) Q9..... | 88 |
| Figure 5.13: (PSS) Q10..... | 89 |

LIST OF ABBREVIATIONS

| | |
|------------|--|
| PHP | Hypertext Preprocessor |
| E Learning | Electronic Learning |
| UUM | University Utara Malaysia |
| CAS | College of Arts and Science |
| PS | Principles of Statistics |
| PSS | Web-Based System to Learn Principles of Statistics |
| MUG | Microsoft Usability Guidelines |
| AUC | American University in Cairo |
| RUP | Rational Unified Process |
| UML | Unified Modeling Language |
| IS | Information System |
| ICT | Information and Communication Technology |
| MBA | Master of Business Administration |
| MSc | Master of Science |
| SPSS | Statistical Package for Social Sciences |
| OCLC | Online Computer Library Centre |

Chapter 1

Introduction

1.0 Introduction

Each year, technology and online services, and communications are growing fast among organizations and users. At present, information can be accessed at any time and anywhere via the Internet. UUM Learning Zone is an excellent example where it can be used to improve and develop the E-Learning environment for courses like Principles of Statistics (PS). This mode can be much more effective, and cheaper than the more traditional way in learning.

Web applications have become so traditional in our daily life in the sense that it will not go a single day without being used (Enzer, 2008). These applications range from simple to complex, where thousands of dollars of revenue can be generated. Developing, testing and quality assurance of these applications have become complex tasks (Abdesselam, 2000).

Online learning or web based learning is only one element of technology-based learning and describes learning via the Internet, extranet and intranet. Online learning program includes graphics and text of course, examples, and exercises. Complex online learning program includes animations, video and audio clips (Bachman, 1999).

The contents of
the thesis is for
internal user
only

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