

FUNCTIONALITY REQUIREMENTS FOR FLEET MANAGEMENT SYSTEM

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ABSTRACT

The project aims to identify the functional requirements of fleet management system with Unified Modelling Language (UML). Three main phases were involved in this project, which are defining requirements, analyze requirements and validate functionalities. The functionalities of requirement are presented by using UML diagrams that consists of use case diagram, use case specification, sequence diagram, collaboration diagram and class diagram. The prototype was built to provide a guideline in developing the running system of Fleet Management System on user's needs.

ABSTRAK

Kertas projek tesis ini bertujuan mengenalpasti keperluan-keperluan kefungsiian yang wujud dalam sistem pengurusan kenderaan dengan menggunakan Unified Modeling Language (UML). Tiga fasa utama terlibat dalam projek tesis iaitu mengenalpasti keperluan, menganalisa keperluan dan menguji kefungsiian. Kefungsiian bagi setiap keperluan akan dipersembahkan dengan menggunakan rajah UML yang terdiri daripada *use case diagram*, *use case specification*, *sequence diagram*, *collaboration diagram* dan *class diagram*. Satu prototaip akan dibangunkan dalam usaha menyediakan satu garis panduan dalam mewujudkan satu sistem sebenar bagi Sistem Pengurusan Kenderaan mengikut keperluan pengguna.

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LIST OF ABBREVIATIONS

CHAOS	-	Quarterly Journal from Standish Group Inc.
DID	-	Department of Irrigation and Drainage
FMS	-	Fleet Management System
HTML	-	Hypertext Markup Language
IEEE	-	Institute of Electrical and Electronics Engineers
MPKB	-	Kota Bharu Municipal Council
SQL	-	Structured Query Language
PHP	-	Hypertext Preprocessor
RDBMS	-	Relational Database Management System
SISKEND	-	Fleet Management Solution for DID
UML	-	Unified Modeling Language
VFMS	-	Vehicle Fleet Management System

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CHAPTER 1

INTRODUCTION

1.1 Introduction

A Fleet Management System (FMS) is a network of systems that captures and monitors all of the information involved with the each vehicle life cycle of the fleet. It's the key to monitoring thousands of pieces of information. The goal of effectively managing each vehicle's life cycle is to pay the minimum amount in acquisition and maintenance costs while getting the maximum return at disposal (Fleet Vehicle Agency, 2002).

Nowadays, fleet becomes most important asset in assist daily job routine and increases productivity in the organization. It is happened at Kota Bharu Municipal Council (MPKB) as local government where many and major activities in municipal management is depending on fleet. However, the current or the manual system that based on old logbook still used now especially in managing record about fleet. Based on the increasing numbers of fleet and its benefits, it is essential to change from manual system to electronic system. It is important for MPKB management to manage their fleet information in electronic method in order to enhance their administrative activities and as well as to identify additional cost savings.

In building the electronic system that meet the expectations of users or stakeholders and are delivered on time and within the budget, specific guidelines such as identifying functional requirements should be considered. Based on literatures, there are no specific functional requirements for Fleet Management System to support local government needs. Therefore, this project aims to identify functional requirements for fleet management as a reference in building the fleet management system.

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