

# Design and Implementation of Electronic Training Management System

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## Abstract

Electronic Training is a kind of educational system delivered via the Internet, it is basically network-enabled convey of skills and knowledge. It has become an increasingly popular learning approach in higher educational institutions due to the rapid growth of Internet technology. The purpose of this paper is to provide details on designing and developing electronic training software. We have developed Electronic Training Management System with Java Programming Language and Phased model as Software Development methodology in order to facilitate the trainees to get the skills and knowledge effectively and cheaply.

**Keywords:** Electronic Training Management System, Java, Phased model.

## 1. Introduction

Electronic Training is an important issue in higher learning institution. The purpose of Electronic Training is to strengthen the quality of education in easy way without spending the travelling fees because it often involves out of classroom educational experiences via Online. Electronic Training Management System was designed by using UML diagrams and developed by using software development methodology. Especially Phased model through to the phases of Conception: Requirement Analysis, System Design, Implementation of the System, System testing, Operations & Maintenance.

## 2. Planning and Selection

### 2.1 Feasibility study

The feasibility study is based on the following concepts: Economic, Operational, Technical, Legal and Political.

2.1.1 Economic Feasibility: we benefit from the Electronic Training Management System due to the increased speed of activities, Error reduction and increased Flexibility.

2.1.2. Operational feasibility: Looking at high costs of travels from one country to another for being trained this system has solved this problem.

2.1.3. Technical Feasibility: The assessment of the ability of developing a proposed system has been

successful basing on knowledge has in computer Science.

2.1.4. Legal and Political: Electronic Training Management System was developed basing on ICT Policy and stakeholders have been assessed successfully.

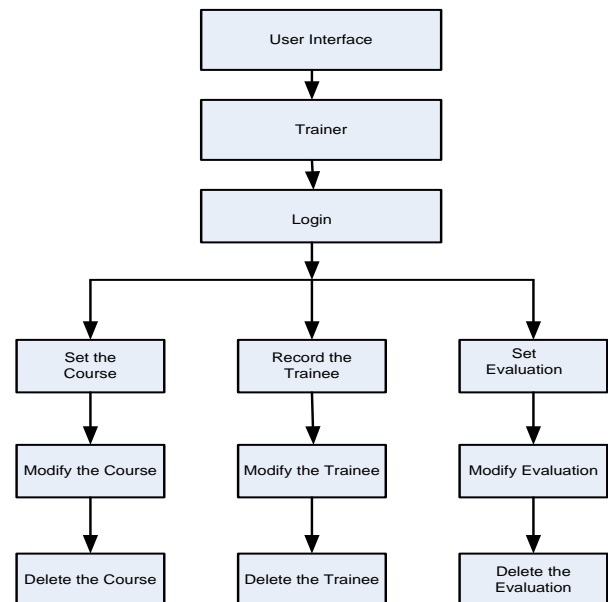
## 3. System Requirements Analysis

The Requirements analysis is the first phase of software development methodology. This phase is very necessary where all requirements of the system are described and show the relationship between entities in database. It includes both functional requirements and technical requirement analyses.

### 3.1. Functional Requirements Analysis

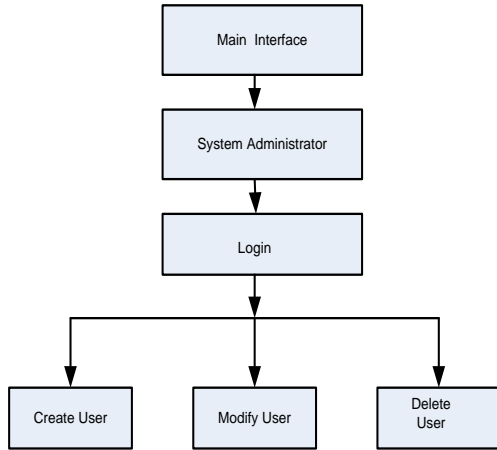
Electronic Training Management System has three sets of functions. The first set of functions is Electronic Training functions that allow the trainers to login record the new traineeset training, monitoring the trainees, logout and also allows the trainees to login, follow the training, logout. The operation flow chart is shown in

Figure 1.



The second set of functions is system administration that allows the system administrators to manage the users of the system. The operation flow chart of data management is shown in

Figure 2



The third set of functions is Electronic Training functions that allow the trainee to login to access the course, ask question, and respond to the trainee.

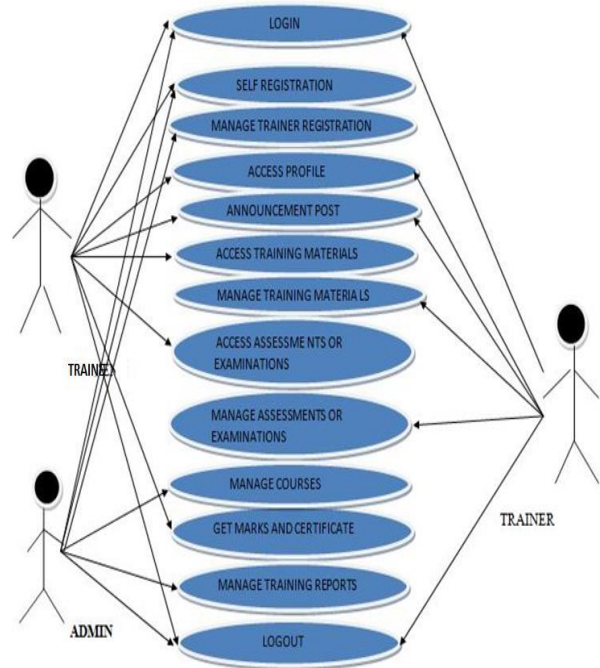
**3.2. Technical Requirements Analysis**

The Network architecture is a client/server based on Windows clients running with Windows Eight and Windows NT Server on the server site, Web Server, Web browser. Java programming language development environment, NetBean as development platform and development tools, SQL server as the database management system.

**4. Design of System**

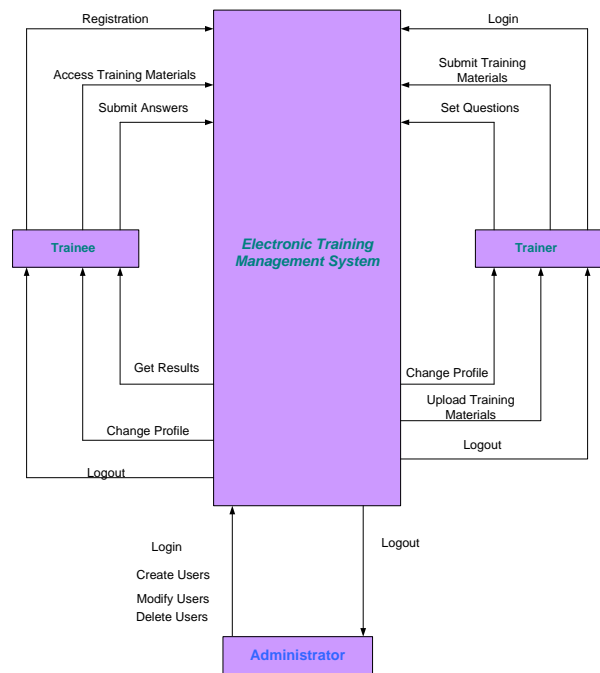
**4.1. Use case diagram**

The users of the system are described in user case diagram



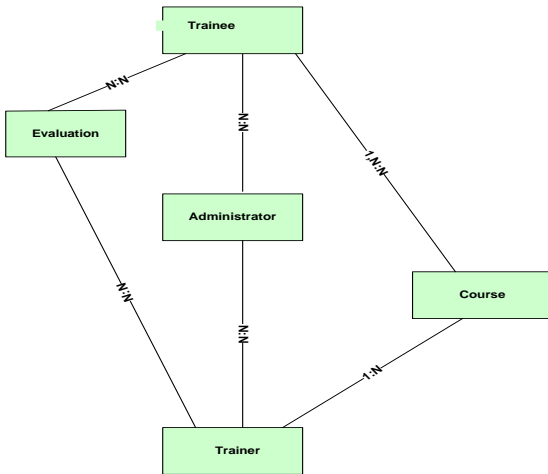
**4.2. Context Diagram**

This is a single picture that has the system of interest at the center, with no details of its interior structure or function, surrounded by those elements in its environment with which it interacts



### 4.3. Class Diagram

In this system, the class diagram is most useful to illustrate relationships among the entities of database such us.



### 5. Conclusion

This Paper is based on Designing and Implementing Electronic Management Training system aims to offer trainings which are mostly related to technology field that allows delivering training program to the students and others kind of people that they need to be provided those trainings. This system allows any Trainer to be registered until get result from evaluation.

### 6. Acknowledgements

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