**PAF-Karachi Institute of Economics & Technology**

**Department of Computer Science**

**Course Project Proposal Form**

**SOFTWARE REQUIREMENT SPECIFICATION FOR ONLINE LEARNING MANAGEMENT SYSTEM (LMS).**

Prepared by

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# 1. Introduction

**1.1 Purpose**

* **Online Learning Management Software** is to enhance the learning process. A learning management system is not only delivers content but also manage to register courses and course administration, skill gap analysis, tracking and reporting. Learning Management Systems are used to maintain online collaboration over the internet. Colleges and companies use them to deliver online training; corporates use them for training purposes, as well as for maintaining employee records. Some use them to offer courses that provide students access to education
* 1.2 Scope

Using a Learning Management System makes things easier for you, as it helps plan the training activities calendar which you can share with your learners, trainer, and co-administrators. By doing this you can maintain and improve your training process. An LMS also helps in getting trainer reports, which is a time consuming process when done manually.

This is a fact that each individual learns in a unique manner. If you apply different learning approaches, they increase your success rate. LMSs help in communication and balance the whole system.

In this digital world the working system has totally changed. Today every employee is engaged with a laptop or desktop, and with the help of Learning Management Systems you make the training future ready; plus it becomes interesting and exciting for your target audience.

**1.3 Audience Definitions, Acronyms and Abbreviations**

**1.3.1 Audience Definitions**

The intended readers of this document are the developers of the site, testers, website owners, managers and coordinators.

**1.3.2 Acronyms and Abbreviations**

|  |  |
| --- | --- |
| **Acronym** | **Meaning** |
| LMS | Online Learning Management System |
| C# | C#.Net MVC 5 |
| SQL | SQL Server |
| HTTP | Hypertext Transfer Protocol |

**1.4 References**

* IEEE 830-1998 standard for writing SRS document.
* Fundamentals of Software Engineering

## 1.5 Technologies to be used

* Programming languages:
* C#:C#.Net is a programming platform— part of the MVC 5 framework for developing and running distributed multi-tier architecture web application
* HTML, XML: Hyper Text Markup Language and Extensible markup Language are the predominant markup languages for web pages. It provides a means to describe the structure of text-based information in a document and to supplement that text with interactive forms, embedded images, and other objects.

SQL Server: Sql server is used to create Database **Tools & Development Environment**

Microsoft Visual Studio: Microsoft Visual Studios a toolkit which is designed for the creation of complex projects, providing fully dynamic web application.

**1.6 Overview**

The rest of this SRS is organized as follows: Section 2 gives an overall description of the software. It gives what level of proficiency is expected of the user, some general constraints while making the software and some assumptions and dependencies that are assumed.

Section 3 gives specific requirements which the software is expected to deliver. Functional requirements are given by the use case.

Section 4 describes the various interfaces and possible scenarios.

**2. Overall Description**

**2.1 Product Perspective**

* This helps uploading courses, assigning roles, and generating various reports. Helps in managing the course activities. Users and trainers can send reminders and notifications, including upcoming training and events. This helps in maintaining training records of the learners, performance of the individual, and providing certificates to those who have completed training successfully.

**2.2 Product Functions**

* User: Administrator Faculties and Students
* Functions: Feature of LMS is that you can enhance performance through tracking and reporting tools. New users’ progress can be tracked, records can be reviewed, and users can register for more than one course. Learning can be done through web based training. Management can access the records and calculate which area needs improvement. The learners also become aware of the areas that need improvement and additional efforts, as the weak performance areas, can be identified easily.
* User: Students/ Faculties / Administration.
* Functions: Users can evaluate courses before joining, and employers can keep a track of the retention levels and real time performance by periodically scheduling assignments.
* Functions: Content and information can be easily upgraded, as Learning Management Systems offer a centralized location for information which makes it simple to implement changes; plus, all users get the same upgraded information at the same time.
* Functions: The right LMS can reduce the training costs in multiple ways as the trainer doesn’t need to travel now, so there are no boarding and lodging charges involved. The teaching cost reduces to great extent. Learning Management Systems save organizations’ and instructors’ valuable time and money through web based training.

## 2.3Constraints

* There is no maintainability of back up so availability will get affected.
* Limited to HTTP/HTTPS.
* No multilingual support

**2.5 Operating Environment**

The OIMS is a website that shall operate in all famous browsers, for a model we are taking Microsoft Internet Explorer versions 7.0, 8.0 and 9.0 .And Google Chrome

**3. Specific Requirements**

**3.1 Functional Requirements**

1. **Administrator:**

* **Managing users, courses, roles, and generating reports.**This helps uploading courses, assigning roles, and generating various reports.
* **Competency management.**With the help of this feature one can track and check the skills set of the team members and compare then against business goals.
* **Certification and display employees’ score and transcripts.**This helps in maintaining training records of the learners, performance of the individual, and providing certificates to those who have completed training successfully.

1. **Organization Owner:**

* **Taking Permission from Administrator:** Irrespective of whether you are operating a mobile learning app or a full-scale corporate learning website, you need to mix the course contents as per your learners’ needs. That means you require a full-scale LMS which will give you the freedom to choose various kinds of course building elements.
* **Consulting with Administrator:** Moreover, the kind of content you add may also vary. An online corporate training environment might demand a lot of video-based content, whilst a mobile app will need snippets of infographics, enabling the learners to grasp the concept quickly.

**3.2Non-functional Requirements**

**3.2.1 Performance Requirements**  
• The system shall accommodate high number of items and users detail without any fault.  
• Responses to view information shall take no longer than 5 seconds to appear on the screen.

**3.2.2 Safety Requirements**  
•System use shall not cause any harm to human users.

**3.2.3 Security Requirements**  
• System will use secured database  
• Normal users can just read information but they cannot edit or modify anything except their personal and some other information.  
• System will have different types of users and every user has access constraints.

**3.2.4 Error handling**

OIMS shall handle expected and non-expected errors in ways that prevent loss in information and long downtime period.

**4. Interfaces Possible Scenarios**

**4.1 Organization Interface:**

**4.1.1 Login:**

This interface will consist of two compulsory fields namely, “User Name” and “Password”. There will also be options for “New User’s Registration” which will redirect to “Registration” If the password entered is correct the Main User Interface opens up else an error message is displayed.

**4.1.2 Registration Interface**

The user will enter his personal details like Name, User Name, Password, Date Of Birth, Address, Registration Type, etc.

Users will be warned about any mistakes on data format or any other constrains by validation notes and error messages.

When the button "save" button is clicked, the server will check if the username or email is already taken and alert the user.

If everything is entered correctly and saved a new user will be created.

**4.1.3 Personal Data Editing**

If any member wants to change his personal information he can enter his profile by clicking on his name at the top right of the main page and he will be directed to the personal details editing page.

**4.1.4. Search**

There is no such feature of search in lms but student can see there all history about grades and performance and also see their past activities.

**4.2 Interface for Organization owner**

The organization owner will have a different login id using which he can access his account that contains a control panel that allows him to contact the administrator, set up/ maintain organization etc.

This control panel will allow the organization owner to do the following things:

* Request the admin for a permission to set up an organization.
* Set up the catalog for his organization and upload it so that the admin can make it visible in the website.
* Add/Remove items. The corresponding changes will be done in the database by the Admin.
* Create advertisements for his promotions.
* Generate all reports.
* Discontinue the organization.

**4.3 Interface for Administrator**

The administrator will have a different login id using which he can access his account that contains a control panel that allows him to contact each and every aspect of the system.

This control panel will allow the administrator to do the following things:

* Access and view the all database.
* Access and view the database of students, go through their requests for organization creation and reply them back with acceptance /dismissal of their request.
* Access and view the employee database and manage them.
* Make the catalog (that is visible to the customers), taking the design of corresponding organization in consideration.