

SMART LEARNING SOLUTION

(Learning Management System)

Project Report

Major Project (ICI651)

Degree

BACHELOR OF COMPUTER APPLICATION

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DECLARATION

We hereby declare that this Project Report titled _____ submitted by us and approved by our project guide, Faculty of Engineering & Computing Sciences. Teerthanker Mahaveer University, Moradabad, is a bonafide work undertaken by us and it is not submitted to any other University or Institution for the award of any degree diploma / certificate or published any time before.

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Abstract

Learning Management System is a project which aims in developing an online application to provide Online Education, maintain Study Materials, keep Student records and Teacher records. This project has login features, Educator as Admin and Student/ Teacher as an user can login into their own portal separately. The Admin can login, through which the admin can monitor the whole system. This System can be used to search for course, add new courses, edit course, check etc. The Admin after logging into his account can edit, remove, check, add, search courses. The User can login into his account to follow course, attendance, lesson and can share his/her feedback.

Overall this project of ours is being developed to help the Educator (Admin) as well as Students/ Teacher (User) to provide Learning platform in the best way possible.

Acknowledgment

It is a genuine pleasure to express my profound gratitude and deep regards to my guide "Mr. Aditiya Tripathi" for his exemplary guidance, monitoring and constant encouragement. I would like to express my special thanks to CCSIT(TMU) who gave me the golden opportunity to do this wonderful project on the topic "SIS (Learning Management System)", which helped me in doing a lot of research and i came to know about so many new things.

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Project Report on



SIS

(LEARNING MANAGEMENT SYSTEM)

Chapter 1: Introduction

The use of e-Learning technology in higher education institutions is no longer an option but has become a necessity. In an era known as the society of technology and knowledge, where lifelong learning is a way of life, it is important that educational institutions have as a priority the goal of finding effective ways of providing new learning opportunities according to their environment, student characteristics, teacher training, economic crisis and advancing technology in an effort to make learning more efficient, equitable and innovative in higher education.

Normally it has been practised in higher education and corporate and occupational training contexts as a part of lifelong learning. However, with the emergence of new open and mobile platforms and web apps, a range of possibilities has opened to facilitate teaching and learning processes in fully on-site or blended environments. As a result, e-learning has been implemented in all educational systems, transcending the traditional idea of distance education.

1.1 Overview

A learning management system (LMS) or virtual learning environment (VLE) is a software application for the administration, documentation, tracking, reporting, automation, and delivery of educational courses, training programs, materials or learning and development programs.^[1] The learning management system concept emerged directly from e-Learning.

Learning management systems make up the largest segment of the learning system market. The first introduction of the LMS was in the late 1990s. LMS have been adopted by almost all higher education institutions in the English-speaking

world. Learning management systems have faced a massive growth in usage due to the emphasis on remote learning during the COVID-19 pandemic.

1.2 Objectives

- The objective of a learning management system (LMS) is to provide a centralized platform for managing and delivering educational content and training programs. The primary goals and objectives of an LMS include:
- **Centralized Learning Repository:** An LMS serves as a centralized hub for storing, organizing, and managing learning materials, including courses, assessments, documents, videos, and other resources.
- **Efficient Content Delivery:** The LMS facilitates the delivery of learning content to learners anytime, anywhere, using digital tools and technologies. This enables asynchronous learning and self-paced study.
- **Streamlined Administration:** It simplifies administrative tasks related to training and education, such as course creation, registration, tracking progress, grading, and generating reports.
- **Scalability:** An LMS allows organizations to scale their training efforts efficiently, whether they are training a handful of employees or a large global workforce. It supports the growth of learning programs without significant logistical challenges.
- **Personalized Learning Experience:** Through features like user profiles, tracking progress, and adaptive learning paths, an LMS can personalize the learning experience to cater to individual needs and learning styles.
- **Tracking and Assessment:** An LMS enables the tracking of learner progress and performance through quizzes, assessments, and analytics. This data helps instructors and administrators evaluate learning outcomes and make data-driven decisions.
- **Collaboration and Communication:** Many modern LMS platforms include social learning features like discussion forums, chat, and video conferencing tools, fostering collaboration among learners and instructors.
- **Compliance and Certification Management:** For organizations requiring compliance training, an LMS can automate the management of certifications, renewals, and regulatory training requirements.
- **Cost-Effectiveness:** Implementing an LMS can lead to cost savings by reducing the need for physical training spaces, travel expenses, and printed materials, especially for organizations with distributed or remote teams.

Chapter 2: System Analysis

System Analysis is the process of studying a procedure in order to identify its goals and purposes and create systems and procedures that will achieve them in an efficient way. It is a problem solving technique that improves the system and ensures that all the components of the system work efficiently to accomplish their purpose.

A systems analyst researches problem, plans solutions, recommends software and systems, and coordinates development to meet business or other requirements. The main goal of this system analyst is to collect different data from different site, process these data and generate progress as well as daily report.

System analyst operates in a dynamic environment where change is a way of life. The environment may be a business firm, a business application, or a computer system. to construct a system the following key elements must be considered: -

Input: Input is what data the system receives to produce a certain output.

Output: What goes out from the system after being processed is known as Output.

Processing: The process involved to transform input into output is known as Processing.

Control: In order to get the desired results it is essential to monitor and control the input, Processing and the output of the system. This job is done by the control.

Feedback: The Output is checked with the desired standards of the output set and the necessary steps are taken for achieving the output as per the standards, this process is called as Feedback. It helps to achieve a much better control in the system.

.

Environment: The things outside the boundary of the system are known as environment. Change in the environment affects the working of the system.

Interfaces: The interconnections and the interactions between the sub-systems are known as the Interfaces. They may be inputs and outputs of the systems.

2.1 Identification of Need

The old manual system was suffering from a series of drawbacks. Since whole of the system was to be maintained offline at one place only, the ease of service was not there. The information (lectures) was never used to be in a systematic order. It was not possible to provide service for large community from different places at the same time. It was seriously affecting the business. For this reason we have provided features present system is automated the whole procedure. Present system can be spread to the world so it would be beneficial for the business.

2.2 Software Requirements Specification (SRS)

A software requirements specification is a document that captures complete description about how the system is expected to perform. It is usually signed off at the end of requirements engineering phase.

Product perspective

The software product is a Web Application. The application will be made up of two parts, one administrator who has all the rights and the other user who has limited rights to handle the application. The two users of the system, namely the Teacher/Educator (User) interact with the system in different ways.

Product Functions

First of all it will authenticate the user whether he is Admin or Student/Teacher (User) the unauthorized person can't get access to the application.

The Admin will be able to Add, delete, and modify StudentDetails. He can also Add, delete and modify Course/ ClassesandLesson Details. He can use this application to check attendance as well as he can check Fees Status.

The Usercan edit his own profile and upload his profile picture. He will be able to learn courses published by admin. User can use application to watch course's lessons. User can write feedback. Feedback will help Admin to improve the quality of content or service.

Safety Requirements

All the data will be saved to database for safety purpose so there will be no data loss. These data can be accessed only by an authorized person so data theft is also not possible in this application.

Security Requirements

For preventing unauthorized access to the application, this application have login feature so only granted user can access with defined rights.

2.2.1 Data Gathering

Data collection is the systematic approach to gathering and measuring information from a variety of sources to get a complete and accurate picture of an area of interest. Data collection enables a person or organization to answer relevant questions, evaluate outcomes and make predictions about future probabilities and trends. Accurate data collection is essential to maintaining the integrity of research, making informed business decisions and ensuring quality assurance.

2.2.2 Feasibility study

Feasibility study means to check whether the project is feasible or not, that means possible or not. Some feasibility study regarding this project is as follows: -

Economic Feasibility

It involves evaluating the costs and potential returns associated with a proposed initiative to determine if it is economically practical and sustainable.

Technical Feasibility Behavioral Feasibility

The Users are also interested in this project, as it will help them to do work with ease and efficiently without complexity, so they supported the development of this project with full enthusiasm. This shows the behavioral feasibility of the project.

Time Feasibility

It is the determination of whether a proposed project can be implemented fully within stipulated time frame. The project was decided to be done in three months and was thought to be feasible.

Operational Feasibility

In this feasibility study it is determined whether there is need of well qualified operator or simple user. Is there need to train the operator or not? This project is supporting the User friendly Web application; hence operating this project is so simple. Even a person who has a little knowledge of computer can easily handle this well. There is no need of trained operator.

2.2.3 Software Process model

The Software Process Models are the various processes or methodologies that are being selected for the development of the project depending on the project's aims and goals. There are many development life cycle models that have been developed in order to achieve different required objectives. The models specify the various stages of the process and the order in which they are carried out.

The selection of model has very high impact on the testing that is carried out. It will define the what, where and when of our planned testing, influence regression testing and largely determines which test techniques to use.

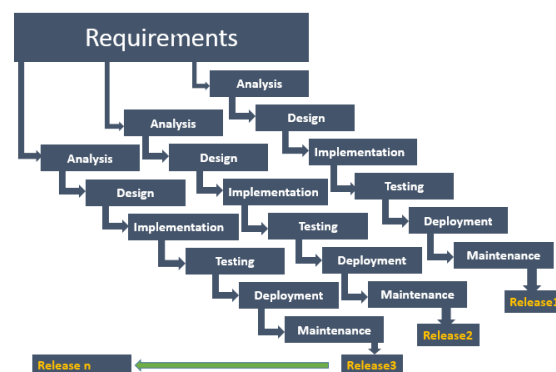
Choosing right model for developing of the software product or application is very important. Based on the model the development and testing processes are carried out.

A Process Model describes the sequence of phases for the entire lifetime of a product. Therefore it is sometimes also called Software Life Cycle. This covers everything from the initial commercial idea until the final de-installation or disassembling of the product after its use.



In order to develop the project “Learning Management System” we have adopted the Iterative Enhancement Model also known as **Incremental**

Model. This model removes the shortcoming of waterfall model. Since many facts of this system are already known. It is not a new concept and hence no research is required. A working version can be easily created and hence the system can start working. Rest of the functionalities can be implemented in the next iteration and can be delivered later. As the requirement analysis is also not required. It not being a new technology risk involved is also less. So one need not perform detailed risk analysis. If redevelopment staff is less than development can be started with less number of people and in next increments others can be involved. As this model combines the advantage of waterfall model and prototyping, clients are always aware of the product being delivered and can always suggest changes and enhancements and can get them implemented. As less amount of customer communication is required one need not apply spiral model in which all types of analysis is done in detail. As the deadline is affordable one need not to for Rapid Application Development model. Iterative enhancement model is useful when less manpower is available for software development and the release deadlines are specified. It is best suited for in house product development, where it is ensured that the user has something to start with. The complete product is divided into releases and the developer delivers the product release by release.

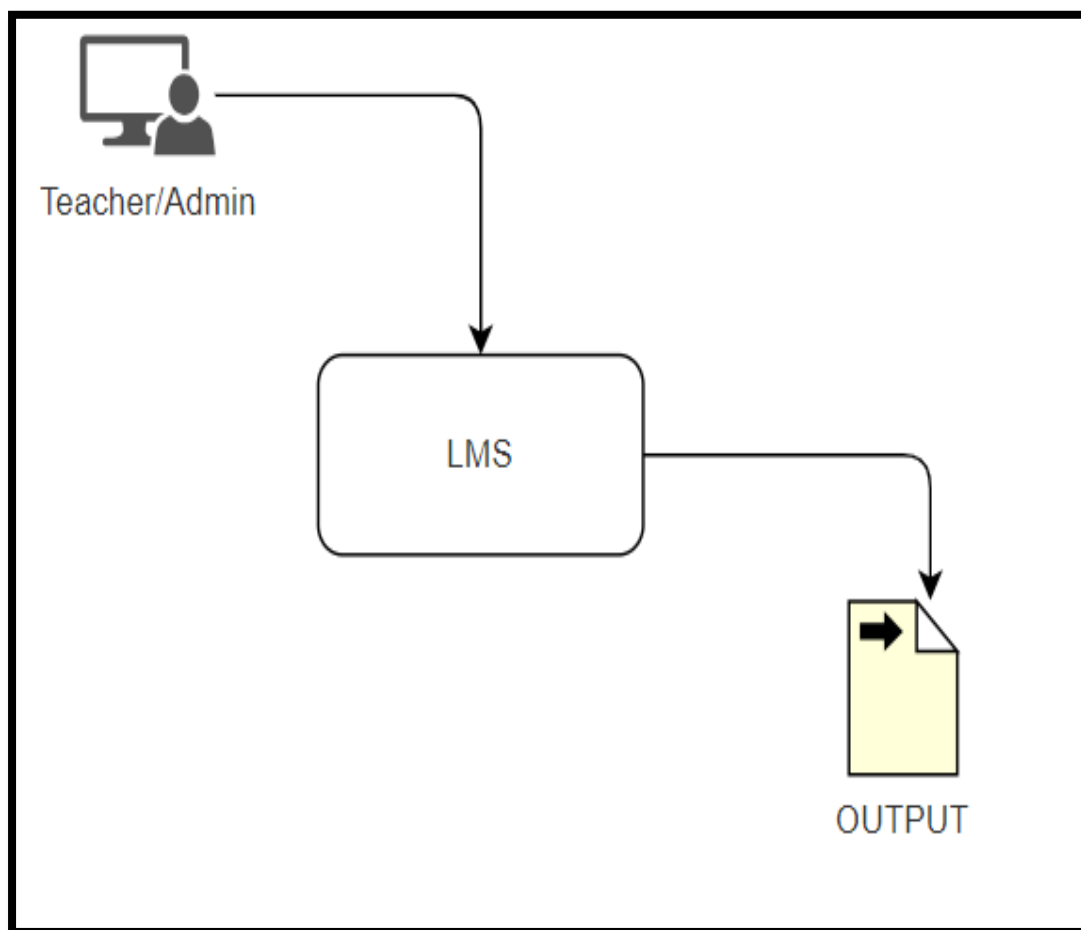


2.3 Data Flow Diagram (DFD)

Data flow diagram is graphical representation of flow of data in an information system. It uses defined symbols like rectangles, circles and arrows, plus short text labels, to show data inputs, outputs, storage points and the routes between each destination. Data flowcharts can range from simple, even hand-drawn process overviews, to in-depth, multi-level DFDs that dig progressively deeper into how the data is handled.

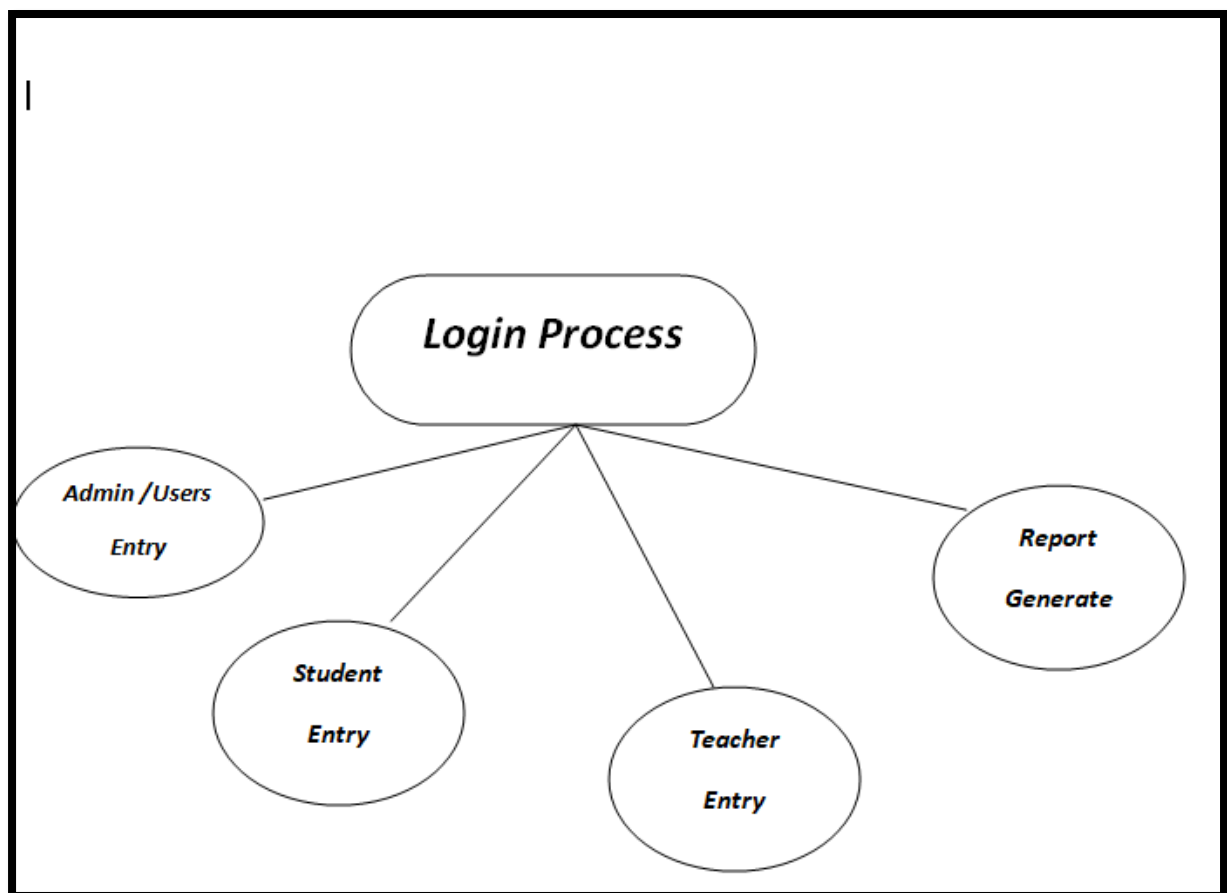
2.3.1 DFD 0 Level

The 0 Level DFD shows flow of data of application. DFD Level 0 is also called a Context Diagram. It's a basic overview of the whole system or process being analyzed or modeled.



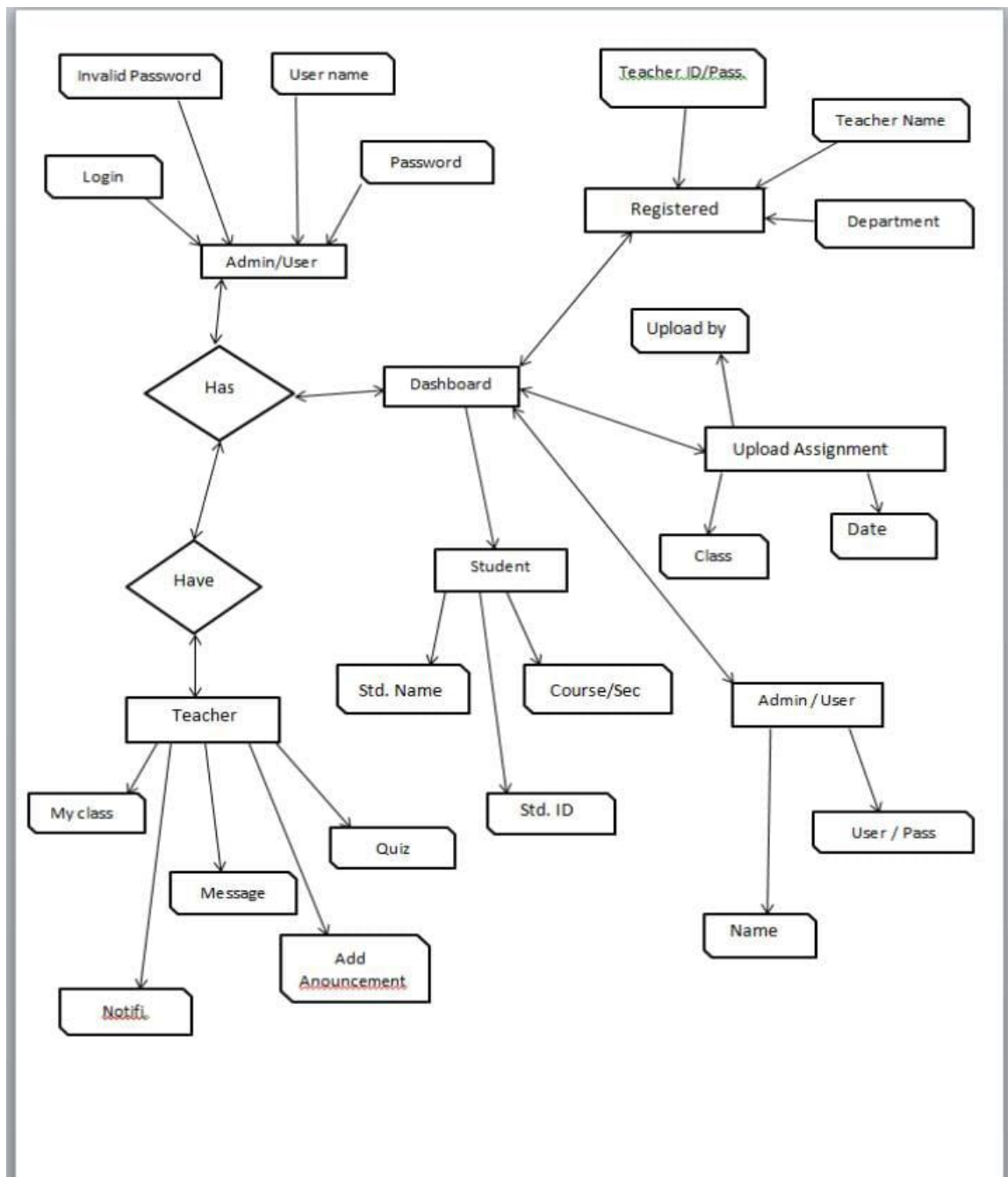
2.3.2 DFD 1 Level

DFD Level 1 provides a more detailed breakout of pieces of the Context Level Diagram. This DFD describes main functions carried out by the system, as we break down the high-level process of the Context Diagram into its sub-processes.



2.4 Entity Relationship Diagram (ER-Diagram)

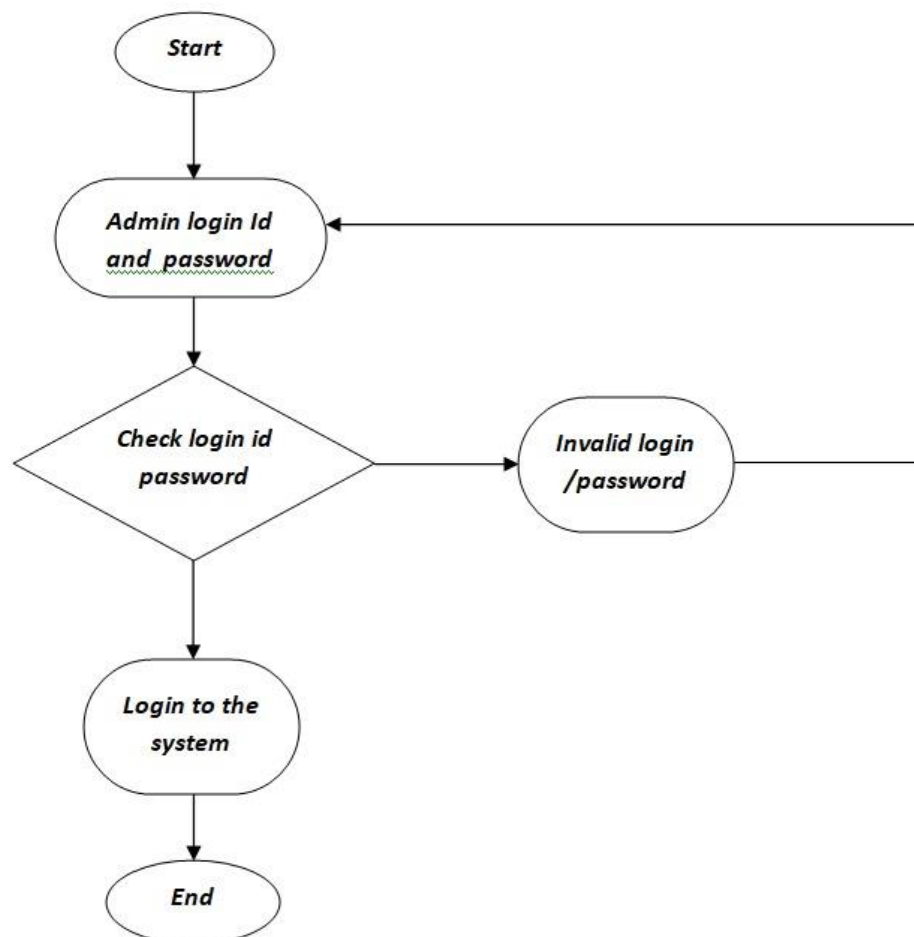
An Entity Relationship Diagram (ERD) is a visual representation of different entities within a system and how they relate to each other. Entity relationship diagrams are used in software engineering during the planning stages of the software project. They help to identify different system elements and their relationships with each other.



2.5 Flow Chart

A flowchart is a diagram that depicts a process, system or computer algorithm. They are widely used in multiple fields to document, study, plan, improve and communicate often complex processes in clear, easy-to-understand diagrams. Flowcharts, sometimes spelled as flow charts, use rectangles, ovals, diamonds and potentially numerous other shapes to define the type of step, along with connecting arrows to define flow and sequence.

Login



2.6 Gantt Chart

Gantt chart was invented by a mechanical engineer named Henry Gantt in 1910. A gantt chart is simply a type of bar chart that visually represents a project plan over time. It shows start and end dates for tasks, displays milestones, and allows for dependencies between tasks. With all the features of Henry gantt's project management system, it's no wonder that even now, more than 100 years later, the gantt chart is still the preferred tool for managing projects of all sizes and types.

Week							
Activities							
Research							
Define Specification							
Project Planning							
Design/ Development							
Testing and Q A							
Delivery							

Chapter 3: System Design

The systems design approach first appeared right before World War II, when engineers were trying to solve complex control and communications problems. They needed to be able to standardize their work into a formal discipline with proper methods, especially for new fields like information theory, operations research and computer science in general. System design is the process of defining the elements of a system such as the architecture, modules and components, the different interfaces of those components and the data that goes through that system. It is meant to satisfy specific needs and requirements of a business or organization through the engineering of a coherent and well-running system.

3.1 Input Module

In order to complete the tasks of LMS and to get output by using this application work, there is need of some input based on the work that is to be carried out by using it. Different kinds of input are required for different purposes.

- Student/Learner Registration
- Course
- Lesson
- Feedback

3.2 Output Module

The project named “Learning Management System” is being made keeping in mind to solve the activities that are carried out in the Education. By using this, Admin can easily do many things like as:

- Student/Learner List
- Course Detail
- Lesson Detail

3.3 Modularization Detail

Without Registration

- Home – This module contains all the links of the application such as Classes, Login, Sign Up, message, quiz, etc.
- Classes – This module contains list of all the recorded classes which are available at LMS.
- Login – This module is used to login into Student/Learner Panel.
- Sign Up – This module is used to register for the Student/Learner Panel.

Student Panel

- My class – This module contains all the details about the classes
- Notification – This module contains list of all notification.
- Message – This module is used to write message
- Logout – This module is used to return back to Home Page.

Admin Panel

- Dashboard – This module displays overview of whole application.
- Subject – This module contains all the courses.
- Class – This module contains all the lesson depends on course id.
- Student – This module displays all the registered student details.
- Department– This module is used to view all the department.
- Teachers– This module displays teacher status.
- Upload assignment – This module displays all the assignment uploaded by the teacher.
- Calander of Events – Admin can use this module to display all events.
- Logout – This module is used to return back to Home Page.

Teacher Panel

My class - This module contain all the classes that taken by the teacher

Notification- This module display all the notification

Message- This module is used for write message

Add Announcement-: This module add announcement related to upcoming event.

Add Assignment-: This module is used to uploaded the assignment by the teacher

Quiz-: This module is used for making a test

3.4 Process Logic

Home:

When the user click on this tab, it will display the other modules and pages of the website such as courses, , login, sign up, popular section, student, teacher t and admin login. This module will be used to display the brief introduction of the project and will show the title of the project.

Classes:

Student can view all available classes by clicking on my class tab where he can choose class according to his date whenever they miss the lecture/live lecture

Login:

This is a login form. Student/Learner can use their own email and password to login into the student panel.

Sign Up:

This is a Registration form for new Students/Learners. New Students/Learners can fill up the form for registration and after successful registration they can use their email id and password to login into the application.

Chapter 4: Tools and Environment

4.1 Hardware Requirements

Processor	i5 Processor
RAM	8 GB
Disk Space	10 GB of Available Hard Disk
Display	1920 x 1080 or IPS Display

4.2 Software Requirements

Operating System	Windows 10
Front End	HTML, CSS, JavaScript
Back End	PHP
Library/ Framework	Bootstrap
Code Editor	Visual Studio Code 1.33
Database	MySQL
Web Server	Apache
Web Browser	Google Chrome

Chapter 5: Software Description

5.1 PHP

PHP is an open source language and all its components are free to use and distribute. PHP is server-side scripting language. It is embedded in HTML source code. PHP supports all major web servers such as Apache, Microsoft IIS and Netscape etc. All the major database such as Mysql, PostgreSQL, Oracle, Sybase, Microsoft SQL Server is supported by PHP. Following are the some major advantage:-

- Friendly With HTML - PHP and HTML are interchangeable within the page. You can put PHP outside the HTML or inside.
- Interactive Features - PHP allows you to interact with your visitors in ways HTML alone can't.
- Top-Notch Online Documentation - The PHP documentation is the best on the web. Hands down.
- Compatible With Databases - A good benefit of using PHP is that it can interact with many different database languages including MySQL.

5.2MySQL

MySQL is the most popular open source relational database management system. It is one of the best RDBMS being used to develop web-based applications. It is easy to use and fast RDBMS. Following are the top reason to use MySQL:-

- High Performance
- Robust Transactional Support
- Strong Data Protection
- Open Source Freedom

5.3HTML

Hypertext Markup Language (HTML) is the standard markup language for creating web pages and web applications. With Cascading Style Sheets (CSS) and JavaScript, it forms a triad of cornerstone technologies for the World Wide Web.

Web browsers receive HTML documents from a web server or from local storage and render the documents into multimedia web pages. HTML describes the structure of a web page semantically and originally included cues for the appearance of the document.

5.4CSS

Cascading Style Sheets (CSS) is a style sheet language used for describing the presentation of a document written in a markup language like HTML. CSS is a cornerstone technology of the World Wide Web, alongside HTML and JavaScript.

CSS is designed to enable the separation of presentation and content, including layout, colors, and fonts. This separation can improve content accessibility, provide more flexibility and control in the specification of presentation characteristics, enable multiple web pages to share formatting by specifying the relevant CSS in a separate .css file, and reduce complexity and repetition in the structural content.

5.5 JavaScript

JavaScript often abbreviated as JS, is a high-level, interpreted programming language. It is a language which is also characterized as dynamic, weakly typed, prototype-based and multi-paradigm.

5.6 Bootstrap

Bootstrap is an open source toolkit for developing with HTML, CSS, and JS. Quickly prototype your ideas or build your entire app with our Sass variables and mixins, responsive grid system, extensive prebuilt components, and powerful plugins built on jQuery. Build responsive, mobile-first projects on the web with the world's most popular front-end component library.

5.7 Visual Studio Code

Visual Studio Code was announced on April 29, 2015 by Microsoft at the 2015 Build conference. A Preview build was released shortly thereafter.

On November 18, 2015, Visual Studio Code was released under the MIT License and its source code posted to GitHub. Extension support was also announced.

On April 14, 2016, Visual Studio Code graduated the public preview stage and was released to web. Visual Studio Code is a source code editor developed by Microsoft for Windows, Linux and macOS. It includes support for debugging, embedded Git control, syntax highlighting, intelligent code completion, snippets, and code refactoring. It is also customizable, so users can change the editor's theme, keyboard shortcuts, and preferences. It is free and open-source, although the official download is under a proprietary license.

Chapter 6: Testing

Software testing is a process used to identify the correctness, completeness and quality of developed computer software. It includes a set of activities conducted with the intent of finding errors in software so that it could be corrected before the product is released to the end users. In other word software testing is an activity to check that the software system is defect free.

Software testing is primarily a broad process that is composed of several interlinked processes. The primary objective of software testing is to measure software health along with its completeness in terms of core requirements. Software testing involves examining and checking software through different testing processes.

The objectives of these processes can include:

- Completeness - Verifying software completeness in regards to functional/business requirements
- Errors Free - Identifying technical bugs/errors and ensuring the software is error-free
- Stability - Assessing usability, performance, security, localization, compatibility and installation

This phase determine the error in the project. If there is any error then it must be removed before delivery of the project.

6.1 Type of Testing

For determining errors various types of test action are performed: -

Unit Testing: -Unit testing focuses verification effort on the smallest unit of software design – the module. Using the detail design description as a guide, important control paths are tested to uncover errors within the boundary of the module. The relative complexity of tests and the errors detected as a result is limited by the constrained scope established for unit testing. The unit test is always white box oriented, and the step can be conducted in parallel for multiple modules.

Unit testing is normally considered an adjunct to the coding step. After source level code has been developed, reviewed, and verified for correct syntax, unit test case design begins.

Integration Testing - A level of the software testing process where individual units are combined and tested as a group. The purpose of this level of testing is to expose faults in the interaction between integrated units.

System Testing: -Software is only one element of a larger computer based system. Ultimately, software is incorporated with other system elements (e.g. new hardware, information), and a series of system integration and validation tests are conducted. Steps taken during software design and testing can greatly improve the probability of successful software integration in the larger system.

A classic system testing problem is “finger pointing”. This occurs when a defect is uncovered, and one system element developer blames another for the problem. The software engineer should anticipate potential interfacing problems and design error handling paths that test all information coming

from other elements of the system, conduct a series of tests that simulate bad data or other potential errors at the software interface, record the results or tests to use as “evidence” if finger pointing does occur, participate in the planning and design of system test to ensure that software is adequately tested.

There are many types of system tests that are worthwhile for software-based systems:-

Usability Testing - Usability Testing is a type of testing done from an end-user’s perspective to determine if the system is easily usable.

Functionality Testing- Tests all functionalities of the software against the requirement.

Performance Testing – Performance testing is designed to test the run-time performance of software within the context of an integrated system.

Security Testing– Security testing attempts to verify that protection mechanisms built into a system will protect it from improper penetration.

Stress Tests– Stress tests are designed to confront programs with abnormal situations.

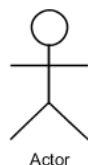
6.2 Use Case

A use case diagram is essentially a picture showing system behavior along with the key actors that interact with the system. The use case represents complete functionality. Use case diagram can be imagined as a black box where only the input, output, and the function of the black box are known. Use Case elements are used to make test cases when performing the testing. The use case should contain all system activities that have significance to the users. A use case can be thought of as a collection of possible scenarios related to a particular goal, indeed. Use cases can be employed during several stages of software development, such as planning system requirements, validating design and testing software.

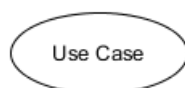
Use case Diagram Objects

Use case diagrams mostly consist of 3 objects: -

Actor - Actor is a use case diagram is any entity that performs a role in one given system. This could be a person, organization or an external system.



Use Case - A Use case represents a function or an action within the system. its drawn as an oval and named with the function.



System - System is used to define the scope of the use case and drawn as rectangle.



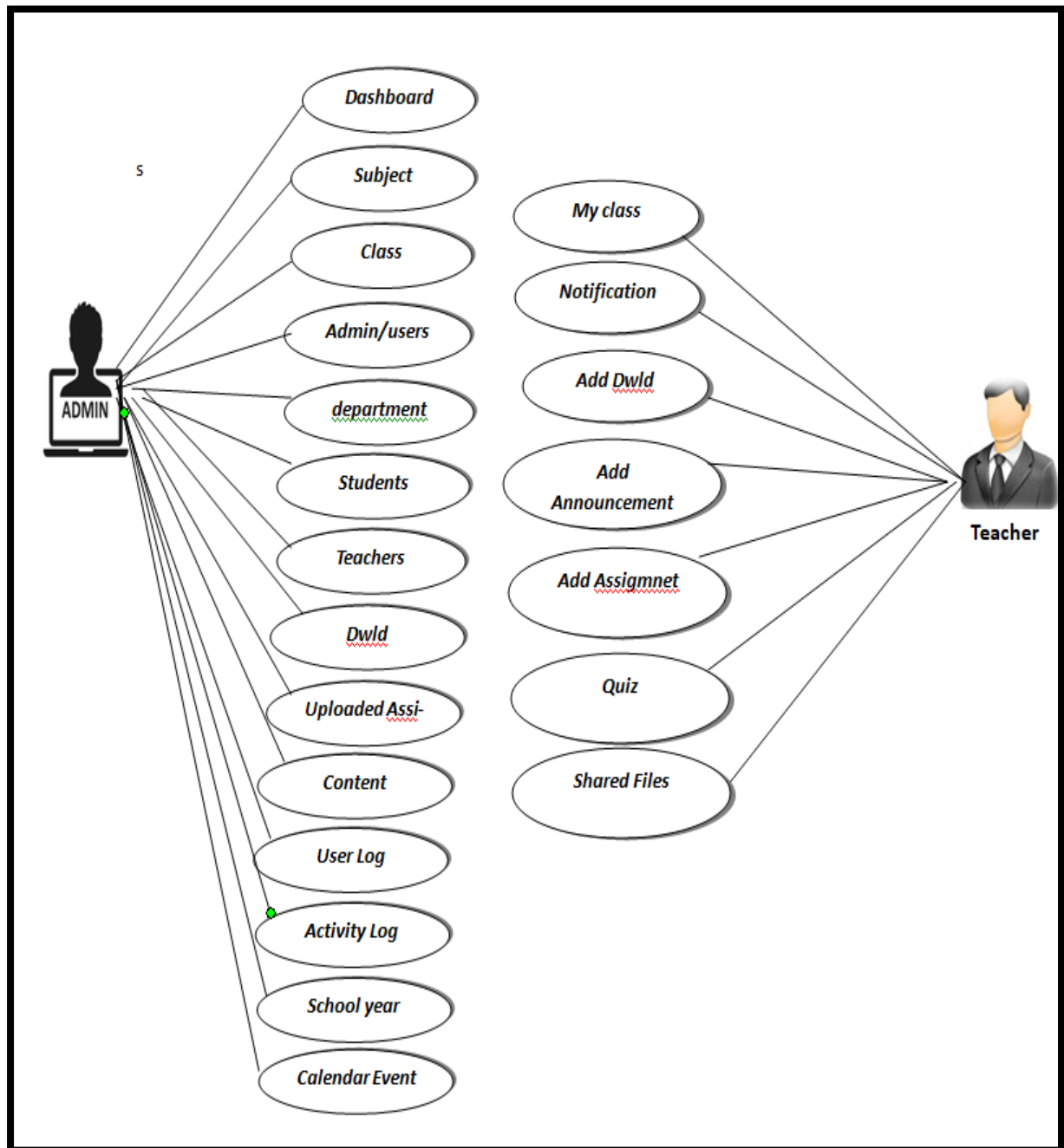
There are two functions: -

Include—This represents required. Symbol of this function is dashed arrow and arrow is labeled with the keyword <<include>>

----->

Extend—This represents optional and it is also shown with dashed arrow the arrow is labeled with the keyword <<extend>>

<-----



6.3 Test Case

A test case is a set of conditions or variables under which a tester will determine whether an application, software system or one of its features is working as it was originally established for it to do.

Login:

Test Case ID	Test Scenario	Test Case	Pre-Condition	Test Steps	Test Data	Expected Result	Actual Result	Status Pass/Fail
TC_Login_1	Verify Login	Enter Valid username and valid password	Need a valid username and password to do login	1. Enter username 2. Enter Password 3. Click Login	Valid username Valid password	Successful login, Main screen of application should displayed	Successful login, Main screen of application displayed	Pass
TC_Login_2	Verify Login	Enter Valid username and invalid password	Need a valid username and password to do login	1. Enter username 2. Enter Password 3. Click Login	InValid username Invalid Password	No Matched Username/ Password	Not Matched Username/ Password	Fail
TC_Login_3	Verify Login	Enter Invalid username and valid password	Need a valid username and password to do login	1. Enter username 2. Enter Password 3. Click Login	Invalid username Valid Password	No Matched Username/ Password	Not Matched Username/ Password	Fail
TC_Login_4	Verify Login	Enter Invalid username and invalid password	Need a valid username and password to do login	1. Enter username 2. Enter Password 3. Click Login	valid username valid Password	Successful login, Main screen of application should displayed	Successful login, Main screen of application displayed	Pass

Teacher/Student Registration

Test Case ID	Test Scenario	Test Case	Pre-Condition	Test Steps	Test Data	Expected Result	Actual Result	Status Pass/Fail
TC_SREG_1	Verify Student Registration Detail	Enter valid name, email, new password	Need valid Data to be entered	1. Enter name 2. Enter email 3. Enter Password 4. Click Sign up	Valid name, valid email, valid password	Successful, User Added Successfully	Successful, User Added Successfully	Pass
TC_SREG_2	Verify Teacher Registration Detail	Enter name, already registered email, new password	Need Data to be entered	1. Enter name 2. Enter Email 3. Enter Password 4. Click Sign up	Valid name, already registered email, valid password	Email ID Already Registered	Email ID Already Registered	Pass

TC_SREG_3	Verify Teacher Registration Detail	Entering Nothing, Required Fields are blank	-	Click Sign up	Nothing to enter Required fields are blank	Fill required field	Fill required field	Pass
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Add Course

Test Case ID	Test Scenario	Test Case	Pre-Condition	Test Steps	Test Data	Expected Result	Actual Result	Status Pass/Fail
TC_Course_1	Verify Course Detail	Enter Valid and correct data	Need valid text and number Data to be entered	1. Enter Valid Data in appropriate fields 2. Click Submit	Valid Text and Number Data	Successful, Course Added Successfully	Successful, Course Added Successfully	Pass
TC_Course_2	Verify Course Detail	Enter invalid and incorrect data	Need text and number Data to be entered	Enter invalid Data in fields	Invalid Text and Number Data	Enter Valid Data	Enter Valid Data	Fail
TC_Course_3	Verify Course Detail	Entering Nothing, Required Fields are blank	-	Click Submit	Nothing to enter Required fields are blank	Fill required field	Fill required field	Pass

Chapter 7: Implementation

Our dedication to our Clients goes well beyond the deployment of our Application. We are committed to providing our Client with a positive experience that starts with a successful implementation.

Implementation is the stage in the project where the theoretical design is turned into a working system. The implementation phase constructs, installs and operates the new system. The most stage is achieving a new successful system is that it will work efficiently and effectively.

Security and integrity of database are very important for any software system because databases are the backbone of the system. Security need to be implanted at every level of the system so that only authorized user can access the system for updation and other significance process.

Chapter 8: Limitation

- It's not SEO friendly
- Risk unauthorized accessibility
- Support is good in modern web browsers but not in legacy ones

Chapter 9: Future Scope

- Despite its rapid growth, the learning management system is not completely spread in the market compared to how the internet has been adopted mostly due to lack of management resources and IT infrastructure. However, the potential for the growth of LMS technology in the market is high as universities and bigger institutes have started exploring this area and have started using LMS as an ideal medium for long-distance education programs.
- LMS system makes education easier as there's an availability of multimedia sources alongside textual materials for the students. This makes learning fun and engaging thereby making a progressive e-learning environment.
- Development of information and communication technology has supported the growth of learning management software and its propagation. Now almost everyone in a taken part of the society has a high-speed internet to access multimedia content available online.

Chapter 10: Conclusion

In conclusion, the Learning Management System (LMS) stands as a transformative tool in modern education, offering a myriad of benefits to both learners and educators alike. By harnessing the power of technology, an LMS facilitates accessibility, scalability, personalization, efficiency, and data-driven insights, thereby revolutionizing the learning experience.

Through its accessibility, the LMS breaks down barriers to education, allowing learners to engage with educational materials at their own convenience, regardless of geographical constraints. Its scalability ensures that educational institutions of all sizes can utilize the platform effectively, accommodating varying numbers of students and courses seamlessly.

Moreover, the LMS's emphasis on personalization empowers learners to tailor their educational journey to their individual needs, enhancing engagement and knowledge retention. Simultaneously, its efficiency streamlines administrative tasks for educators, freeing up valuable time for more meaningful interactions with students.

Reference

The following reference has been used to develop the project “LMS” :-

- <https://www.bsetec.com/blog/scope-of-learning-management-in-future/>
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- <https://www.techtarget.com/searchcio/definition/learning-management-system>
- <https://www.techtarget.com/searchcio/definition/learning-management-system>
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- <https://blog.hrflow.ai/lms-case-study-the-evolution-of-learning-management-systems-with-ai/>
- <https://www.academyofmine.com/what-is-an-lms/>
- <https://creately.com/diagram/example/i2lwj7h22/lms-use-case-diagram-classic>
- https://r.search.yahoo.com/_ylt=AwrKAR1LqUFm_ZUdZFy7HAX.;_ylu=Y29sbwNzZzMEcG9zAzEEdnRpZAMEc2VjA3Ny/RV=2/RE=1715608012/RO=10/RU=https%3a%2f%2fgithub.com%2ftopics%2flearning-management-system/RK=2/RS=kMM.6pcHpyhjkzSXX9hiwS_iCz0-

Figure 1: DFD 0 Level

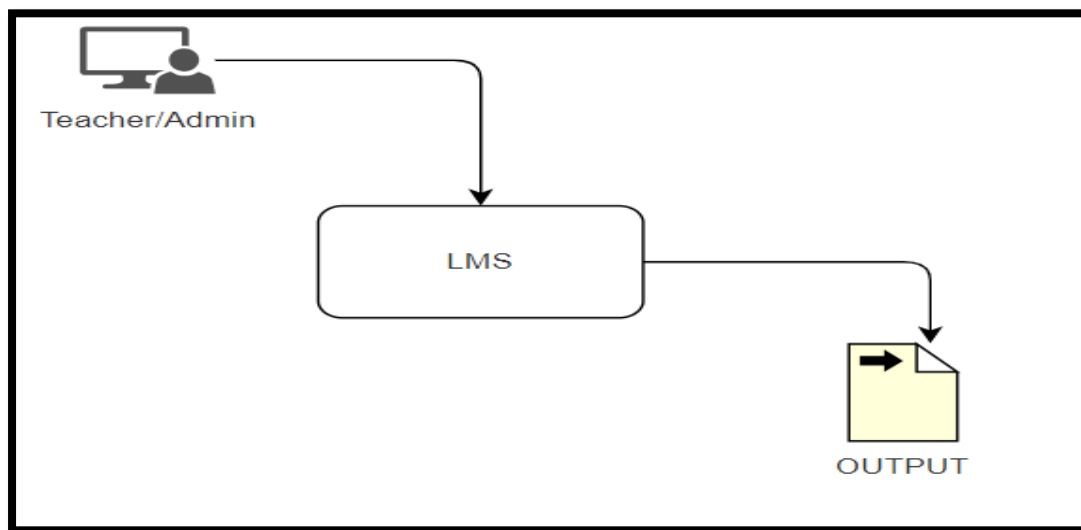


Figure 2: DFD 1 Level

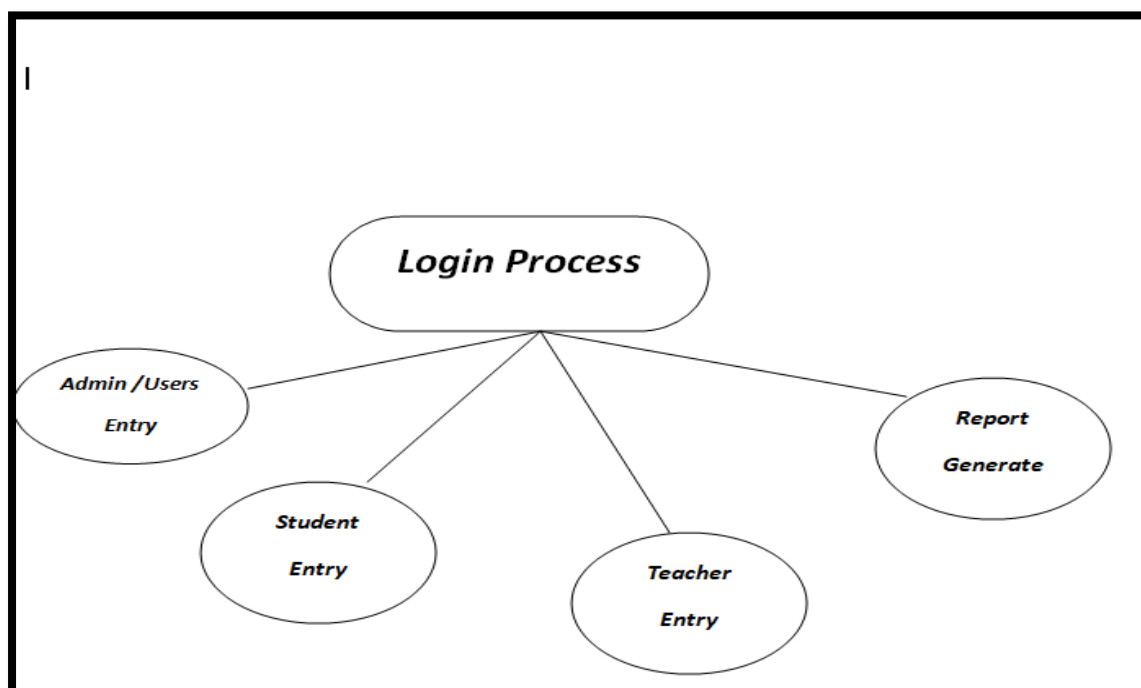


Figure 3: ERD

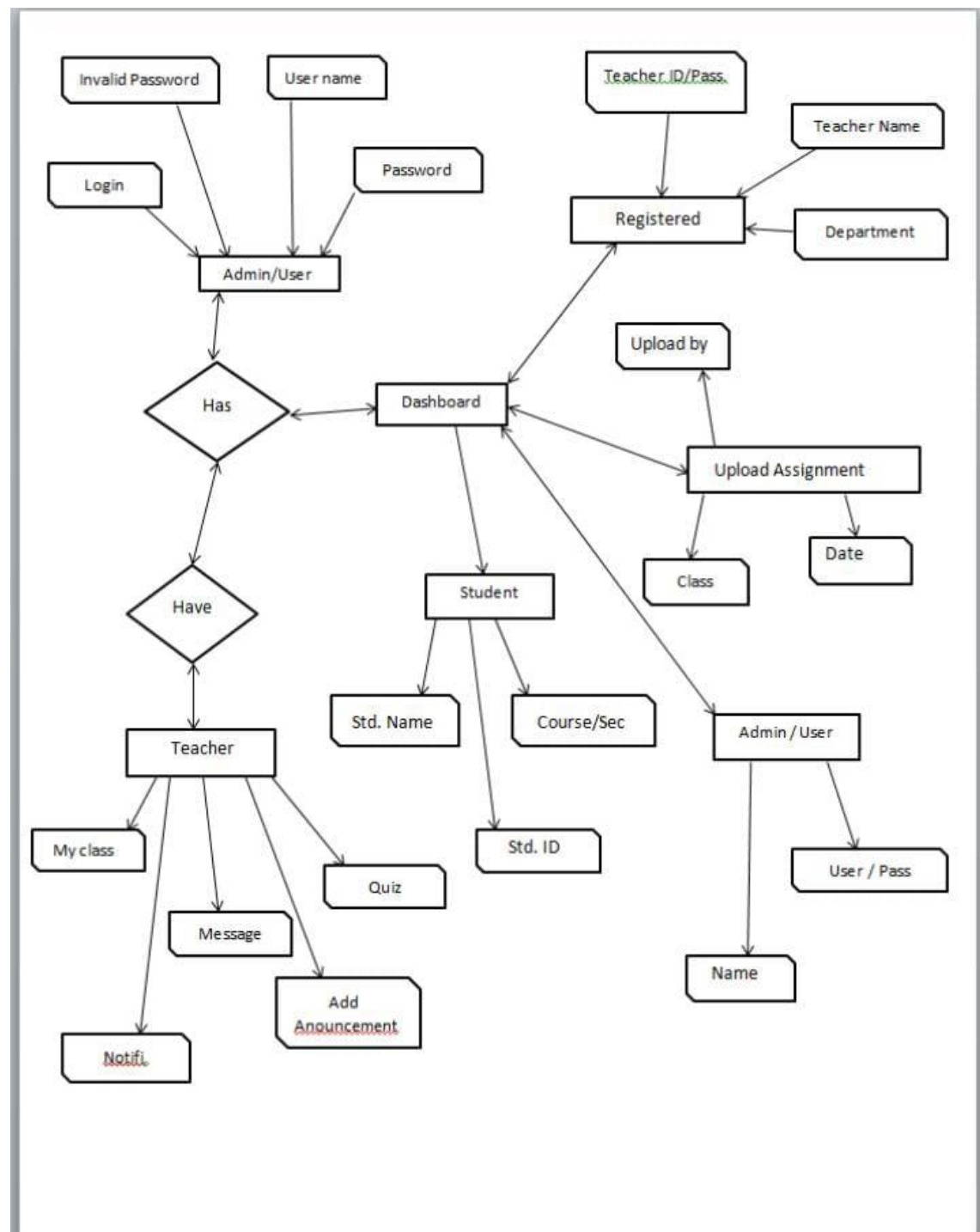


Figure 4.1: Flow Chart

Login

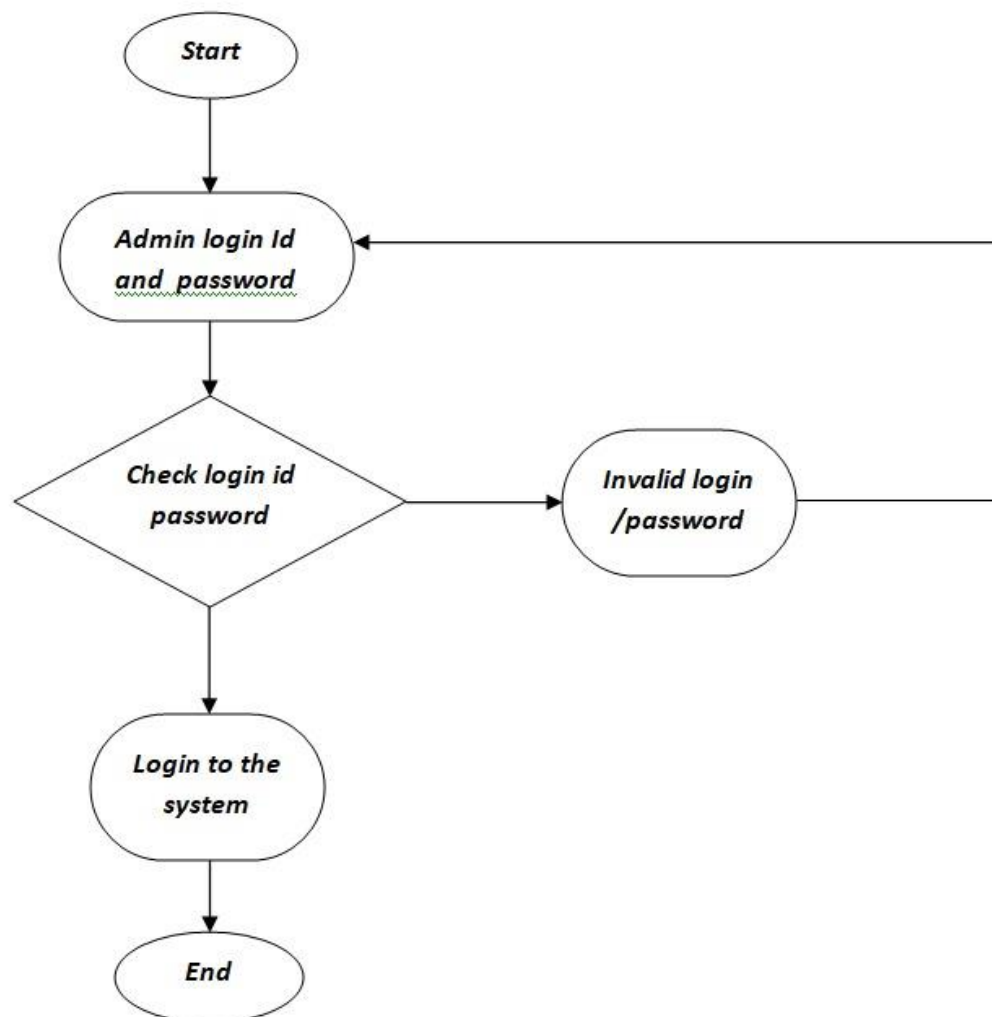


Figure5: Time Chart

Week							
Activities							
Research							
Define Specification							
Project Planning							
Design/ Development							
Testing and Q A							
Delivery							

Figure 6: User Case Digram

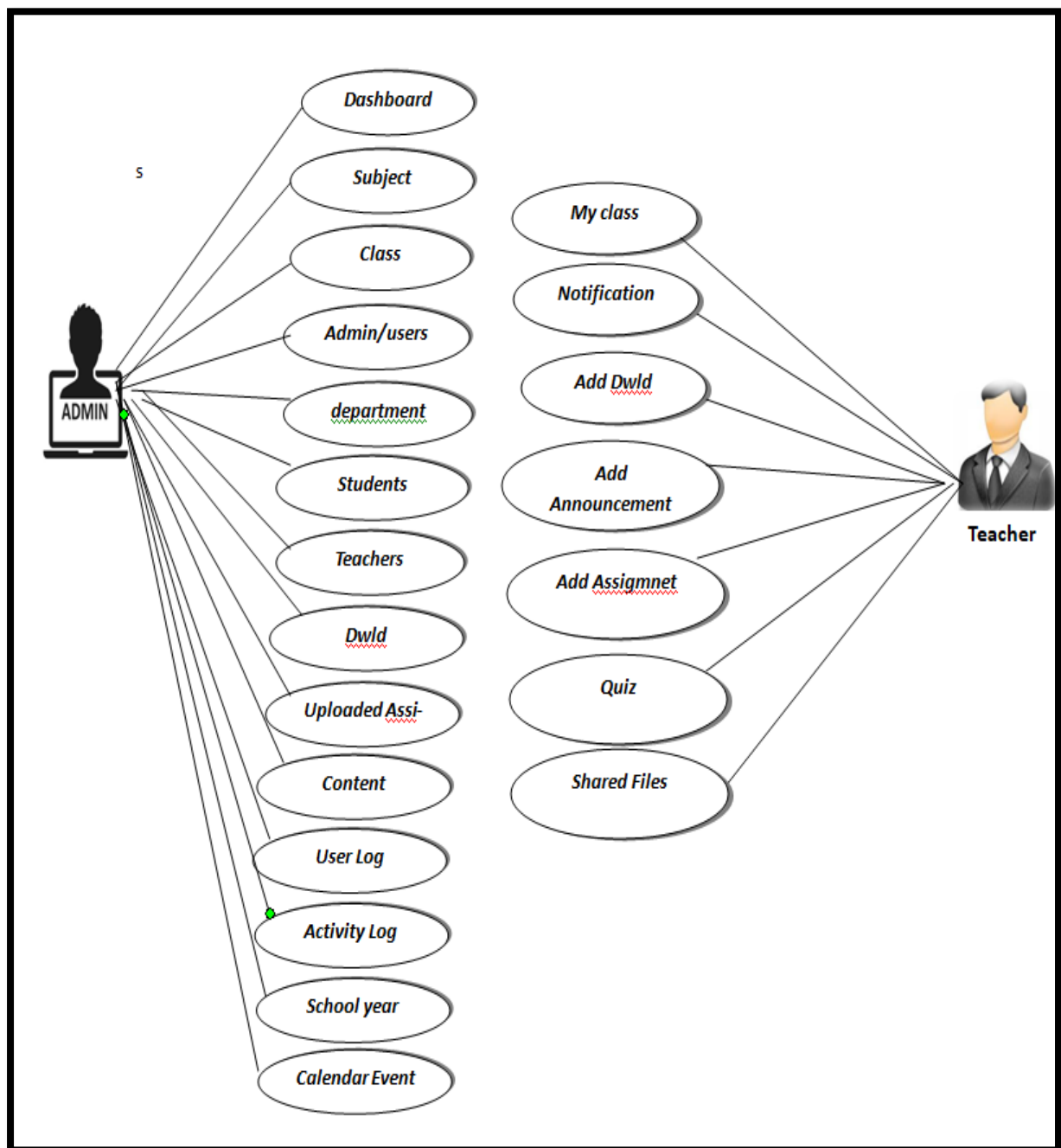
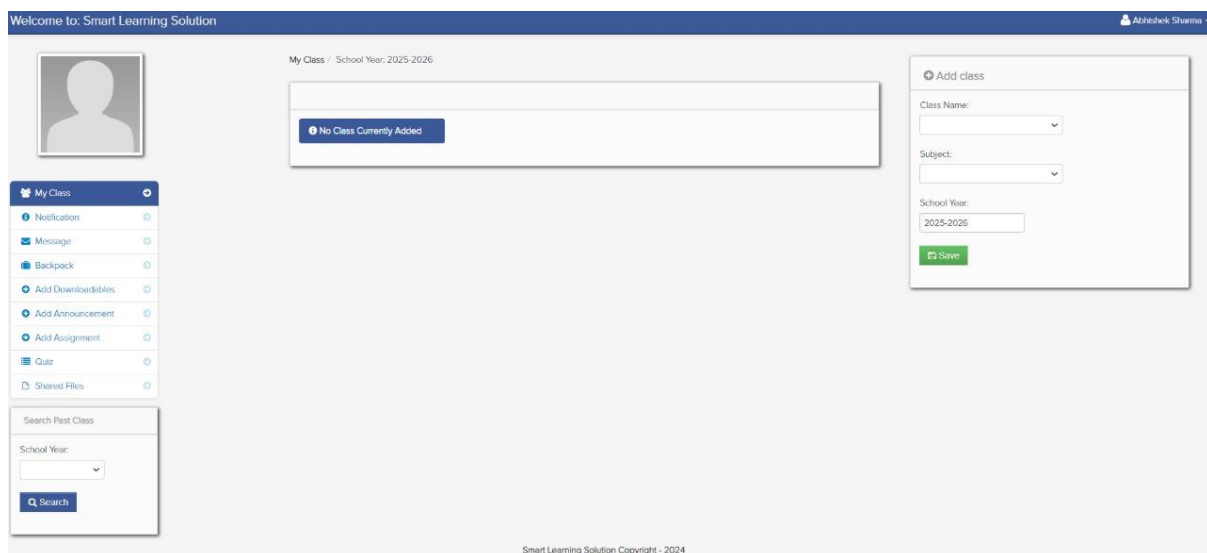


Figure 7: Screen Short



SIS ADMIN Panel Autish Sharma

Dashboard Subject Class Admin Users Department Students Teachers Downloadable Materials Uploaded Assignments Content User Log Activity Log School Year Calendar of Events

Add Subject

Subject List

10 records per page Search:

SUBJECT CODE	SUBJECT TITLE	
IC2510	cloud computing	✓
IS 412	Effective Human Communication for IT Professional	✓
IMW 311	Programming C	✓
UT 1	ENGLISH Literature	✓
IS 322	Management of Technology	✓
IMW 501	VIRTUALIZATION	✓
IS 324	PYTHON	✓
ICC5001	JAVA	✓
IC201	HTML	✓
IMWE 251	Quantitative Techniques in Business	✓

Showing 1 to 10 of 14 entries

Previous 1 2 Next

SIS ADMIN Panel Autish Sharma

Dashboard Subject Class Admin Users Department Students Teachers Downloadable Materials Uploaded Assignments Content User Log Activity Log School Year Calendar of Events

Add Subject

Subject List

10 records per page Search:

SUBJECT CODE	SUBJECT TITLE	
IC2510	cloud computing	✓
IS 412	Effective Human Communication for IT Professional	✓
IMW 311	Programming C	✓
UT 1	ENGLISH Literature	✓
IS 322	Management of Technology	✓
IMW 501	VIRTUALIZATION	✓
IS 324	PYTHON	✓
ICC5001	JAVA	✓
IC201	HTML	✓
IMWE 251	Quantitative Techniques in Business	✓

Showing 1 to 10 of 14 entries

Previous 1 2 Next

SLS ADMIN Panel Aishah Sharma

- Dashboard
- Subject
- Class
- Admin Users
- Department**
- Students
- Teachers
- Downloadable Materials
- Uploaded Assignments
- Content
- User Log
- Activity Log
- School Year

Add Department

Department

Person Incharge

Department List

10 records per page Search:

DEPARTMENT	PERSON IN-CHARGE	
NURSING	DR.PRADEEP	<input type="checkbox"/>
Arts and Science	DR.BAKESH	<input type="checkbox"/>
LAW	DR.ADIYA	<input type="checkbox"/>
COMPUTER SCIENCE	DR.PK SRIVASTAV	<input type="checkbox"/>
RUPESH CHAKRABORTY	RESEARCH & DEPARTMENT	<input type="checkbox"/>

Showing 1 to 5 of 5 entries

Previous 1 Next

SLS ADMIN Panel Aishah Sharma

- Dashboard
- Subject
- Class
- Admin Users
- Department
- Students**
- Teachers
- Downloadable Materials
- Uploaded Assignments
- Content
- User Log
- Activity Log
- School Year
- Calendar of Events

Add Student

ID Number

Firstname

Lastname

Student List

10 records per page All Unregistered Registered

Search:

NAME	ID NUMBER	COURSE YR & SECTION	
HARSH GAUR	TCA2156010	ANIMATION	<input type="checkbox"/>
ANAMIKA DUBEY	BSC26941	BSC CS	<input type="checkbox"/>
KHYATI DURVE	AN95286	ANIMATION	<input type="checkbox"/>
CHATUR RAMLINGAM	CO54378	B.COM	<input type="checkbox"/>
GUNJAN SINGHANA	TECH14574	B.TECH	<input type="checkbox"/>
RAJU RASTOGI	COM84626	B.TECH CS	<input type="checkbox"/>
RANJANA SACHDEVA	BCA34269	BCA	<input type="checkbox"/>
RAJUL JAIN	BSC55347	BSC	<input type="checkbox"/>
SIDDHARTH SOMWANSHI	DS25317	DATA SCIENCE	<input type="checkbox"/>
SHRUTI SINGH	MBA42572	MBA	<input type="checkbox"/>

Showing 1 to 10 of 13 entries

Previous 1 2 Next

