

E-LEARNING PLATFORM

**A PROJECT REPORT
for
Major Project (KCA-451)
Session (2023-24)**

Submitted by

**PRIYANKA PANDEY (University Roll No:- 2200290140117)
PRACHI SHARMA (University Roll No:- 2200290140110)
PRAJJWAL YADAV (University Roll No:- 2200290140111)**

**Submitted in partial fulfilment of the
Requirements for the Degree of**

MASTER OF COMPUTER APPLICATIONS

**Under the Supervision of
Dr. Shashank Bhardwaj
Associate Professor**



Submitted to

**DEPARTMENT OF COMPUTER APPLICATIONS
KIET Group of Institutions, Ghaziabad
Uttar Pradesh-201206
(MAY 2024)**

CERTIFICATE

Certified that **Prajwal Yadav 2200290140117** has/ have carried out the project work having “**E-LEARNING PLATFORM**” (KCA-451) for **Master of Computer Applications** from Dr. A.P.J. Abdul Kalam Technical University (AKTU) (formerly UPTU), Lucknow under my supervision. The project report embodies original work, and studies are carried out by the student himself/herself and the contents of the project report do not form the basis for the award of any other degree to the candidate or to anybody else from this or any other University/Institution.

Date: 27 MAY 2024

Priyanka Pandey (2200290140117)

Prachi Sharma(2200290140110)

Prajwal Yadav(2200290140111)

This is to certify that the above statement made by the candidate is correct to the best of my knowledge.

Date: 27 MAY 2024

Dr. Shashank Bhardwaj
Associate Professor
Department of Computer Applications
KIET Group of Institutions, Ghaziabad

Dr. Arun Tripathi
Head
Department of Computer Applications
KIET Group of Institutions, Ghaziabad

E-LEARNING PLATFORM

Priyanka Pandey

Prachi Sharma

Prajwal Yadav

ABSTRACT

E-Learning Management System is a project which aims in developing an online application to provide Online Education, maintain Study Materials, keep Student records and collect Payments. This project has login features, Educator as Admin and Student 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 payment status etc. The Admin after logging into his account can generate reports such as sell Report. The User can login into his account to follow course he purchased and can share his/her feedback.

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

ACKNOWLEDGEMENT

Success in life is never attained single handedly. My deepest gratitude goes to my thesis supervisor, **Dr. Shashank Bhardwaj** for his guidance, help and encouragement throughout my research work. Their enlightening ideas, comments, and suggestions.

Words are not enough to express my gratitude to Dr. Arun Kumar Tripathi, Professor and Head, Department of Computer Website for his insightful comments and administrative help at various occasions.

Fortunately, I have many understanding friends, who have helped me a lot on many critical conditions.

Finally, my sincere thanks go to my family members and all those who have directly and indirectly provided me moral support and other kind of help. Without their support, completion of this work would not have been possible in time. They keep my life filled with enjoyment and happy.

PRIYANKA PANDEY

PRACHI SHARMA

PRAJJWAL YADAV

LIST OF TABLES

Table No.	Name Of Table	Page No.
1.8.1	Hardware Requirements	14
1.8.2	Software Requirement	14
3.10	Admin (Stores Admin Detail)	34
3.11	Student (Stores Student Detail)	35
3.12	Feedback (Stores Feedback Detail)	36
3.13	Course (Stores Course Detail)	37
3.14	Lesson (Stores Lesson Detail)	38
3.15	Course order (Stores Course order Detail)	39
6.3.1	Login	75
6.3.2	User/Student Registration	76
6.3.3	Add Course	76

LIST OF FIGURES

Figure No.	Name of Figure	Page No.
1.4	Web Based Application	10
2.4	Software Process Model	21
2.5	Gantt Chart	22
3.6	Flowchart	28
3.7	Use Case Diagram	30
3.8.1	Zero Level DFD	31
3.8.2	First Level DFD	32
3.8.3	Second Level DFD	33
3.9	E R Diagram	34
4.1	Student Registration	42
4.2	Login or Sign Up	43
4.3	Payment	43
4.4	Home	44
4.5	Courses	45
4.6	Student Profile	45
4.7	My Courses	46
4.8	Student Feedback	46
4.9	Student Change Password	47
4.10	Admin Dashboard	47
4.11	Admin Courses	48
4.12	Add Courses	48
4.13	Edit Courses	49
4.14	Lessons	49
4.15	Add Lesson	50
4.16	Edit Lesson	50

4.17	List of Student	51
4.18	Add New Student	51
4.19	Edit Student	52
4.20	Sell Report	52
4.21	Admin Payment Status	53
4.22	Student Feedback	53
4.23	Admin Change Password	54

CHAPTER 1

INTRODUCTION

1.1 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.

1.2 OVERVIEW

It is difficult to find time for the training necessary to gain new skills and boost your productivity. With E Learning you're able to learn at a pace that is comfortable for you. E Learning is a powerful Learning Management System implementing the latest trends in e-learning. E-Learning is learning utilizing electronic technologies to access educational curriculum outside of a traditional classroom. In most cases, it refers to a course, or program delivered completely online. We define eLearning as courses that are specifically delivered via the internet to somewhere other than the classroom where the professor is teaching. E-Learning has been proven to be a successful method of training and education is becoming a way of life

for many citizens in India and across the World. E Learning Publisher is a professional team development environment for the rapid development of e-courses by their own.

Any Person who wants to gain new skills can join E-Learning. A Person/Student/Learner has to fill up registration form which is absolutely Free. Once Learner registers successfully, they will get UserID/Email and Password for login into Student/Learner Panel. After login they can buy any course as per their choice or requirement which is available in E Learning. They can watch purchased video courses online and can submit their feedback. As well they can update their profile and can change password. Admin of this system will upload new courses which will be available for everyone. Admin can delete or edit student/learner details. Admin can modify course details and can check sells report.

1.3 OBJECTIVES

A flexible web-based learning experience allows you to go through a guided curriculum or choose lessons on an as-needed basis. Following are the main objectives:-

Ability to recall previously learned material – Students/learners can watch video courses as many times as they need. If they forgot something during the course they can come back and watch that specific part anytime.

Creative way to present lesson – It is very creative way to present lectures. It will surely enhance teaching ability of tutor. Low Cost – As nobody needs to travel or rent anything so it's very cost efficient. High Quality – As tutor do not has time boundation so he can teach in his own comfort time.

Learn anytime from anywhere – Students/Learners can start learning anytime from anywhere they just required internet connection with a compatible device. Improve course quality according to learner's feedback – Tutor can improve their course as per student's feedback. It will help tutor to improve their ability to teach.

Earn Money Online– As courses are paid so we can say it's an online teaching business which has no boundaries means students/learners can join from across the world so this system can make good business with good quality.

1.4 PROJECT CATEGORY

This project as titled “E Learning (E-Learning Management System)” is comes under the Web Based Application. This application is developed with the help of HTML, CSS, Bootstrap, PHP, MySQL etc.



Figure 1.4 Web Based Application

1.5 PROJECT DESCRIPTION

1.5.1 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.

1.5.2 MySQL

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

1.5.3 HTML

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.

1.5.4 CSS

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.

1.5.5 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.

1.5.6 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.

1.5.7 Paytm Payment Gateway

Collecting Online Payment for any kind of business is much easier with Paytm Payment Gateway. It provides a secure, PCI-compliant way to accept Debit/Credit card, Net-Banking, UPI and Paytm wallet payments from your customers. It also provides cancellations feature. It helps to make genuine cancellations a positive experience and maintain customer loyalty.

1.5.8 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.

1.5.9 yEd Graph Editor

yEd is a powerful Free Desktop Application that can be used to quickly and effectively generate high-quality diagrams. yEd can be used to draw many different types of diagrams, including flowcharts, network diagrams, UMLs, BPMN, mind maps, organization charts, and entity-relationship diagrams. yEd can automatically arrange diagram elements using a variety of graph layout algorithms. The program works much like many similar applications. yEd can export diagrams to various raster and vector formats, including GIF, JPEG, PNG, EMF, BMP, PDF, EPS, and SVG.

5.10 StarUML

StarUML is an open source project to develop fast, flexible, extensible and featureful diagrams. With StarUML it is very easy to make Class Diagram. StarUML is implemented to provide many user-friendly features such as Quick dialog, Keyboard manipulation, Diagram overview, etc.

1.6 IMPLEMENTATION

Our dedication to our Client 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.

1.7 LIMITATIONS

- Only one tutor can access at a time
- It's not SEO friendly
- Risk unauthorized accessibility
- Support is good in modern web browsers but not in legacy ones

1.8 TOOLS/PLATFORM

1.8.1 Hardware Requirements

Processor	1.6 GHz or Faster Processor
RAM	4 GB
Disk Space	10 GB of Available Hard Disk
Graphic	DirectX 9-Capable Video Card
Display	1024 X 768 or Higher Resolution

Table 1.8.1 Hardware Requirements

1.8.2 Software Requirement

Operating System	Windows 10
Front End	HTML, CSS, JavaScript
Back End	PHP
Library/ Framework	Bootstrap, JQuery, Font Awesome
Plugins	Owl Carousel
Code Editor	Visual Studio Code 1.33
Database	MySQL
Web Server	Apache
Web Browser	Google Chrome
Payment Gateway	Paytm
Drawing Tools	yEd Graph Editor
	StarUML

Table 1.8.2 Software Requirement

CHAPTER 2

SYSTEM ANALYSIS

2.1 INTRODUCTION

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.

Boundaries: The boundaries are nothing but the limit of the system. Setting up boundaries helps for better concentration of the actives carried 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.

2.2 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.

2.3 SOFTWARE REQUIREMENT SPECIFICATION

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 (Admin) and Student/Learner (User) interact with the system in different ways.

Product Functions

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

The Admin will be able to Add, delete, and modify Student Details. He can also Add, delete and modify Course and Lesson Details. He can use this application to check report related to sells as well as he can check Payment Status.

The User can edit his own profile and upload his profile picture. He will be able to purchase courses published by admin. User can use application to watch purchased 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.

2.3.1 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.

2.3.2 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: -

2.3.3 Economic Feasibility

The project has shown the economic feasibility by the study of the fact that by using this software the increased number of the users can be given service effectively and efficiently and can save a lot time and saving time means saving money. The cost and benefit analysis has shown that cost that have incurred in developing the project is less than the benefits that the project is going to provide once it is developed, so this project has passed the feasibility test.

2.3.4 Technical Feasibility

Technical feasibility centers on the existing computer system (Hardware, Software etc.) and to what extent it supports the existing system. As the existing system computer system is viable so there is no matter of technical feasibility that is the system is technically feasible. In this type of feasibility study it is checked whether there is a need of new hardware/software or not. What are the basic requirements of the project? If there is need then how it can be fulfilled. In this context, this project doesn't need any special hardware or software. It can run on window 7/10 platform. However, Internet and a Web browser is needed to run the web application.

2.3.5 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.

2.3.6 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.

2.3.7 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.

2.4 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.



Figure 2.4 Software Process Model

In order to develop the project “E Learning” 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.

2.5 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	1	2	3	4	5	6	7	8	9	10	11	12
Activities												
Research												
Define Specification												
Project Planning												
Design												
Development												
Test Plan												
Testing and Q A												
Delivery												

Figure 2.5 Gantt Chart

CHAPTER 3

SYSTEM DESIGN

3.1 INTRODUCTION

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.

3.2 INPUT MODULE

In order to complete the tasks of E Learning 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
- Payment Status

3.3 OUTPUT MODULE

The project named “E Learning E-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
- Sell Report
- Payment Receipt

3.4 MODULARIZATION DETAILS

Without Registration

Home:-

This module contains all the links of the application such as Courses, Payment Status, Login, Sign Up, Feedback Section and Contact.

Courses:-

This module contains list of all the courses which are available at E Learning.

Payment Status:-

This module is used to check Payment status after purchasing a course.

Login:-

This module is used to login into Student/Learner Panel.

Sign Up:-

This module is used to register for the Student/Learner Panel.

Feedback:-

This section shows feedback given by registered students/learners.

Contact:-

Learner can use this section to contact the admin/tutor for any kind of queries.

Student Panel**Profile:-**

This module contains all the details about Student/Learner as well as Student can update their details.

My Courses:-

This module contains list of all purchased courses.

Feedback:-

This module is used to write feedback.

Change Password:-

Students can use this module to change password.

Logout:-

This module is used to return back to Home Page.

Admin Panel**Dashboard:-**

This module displays overview of whole application.

Courses:-

This module contains all the courses.

Lessons:-

This module contains all the lesson depends on course id.

Students:-

This module displays all the registered student details.

Sell Report:-

This module is used to view and print sells report.

Payment Status:-

This module displays payment status in more details.

Feedback:-

This module displays feedback given by students.

Change Password:-

Admin can use this module to change password.

Logout:-

This module is used to return back to Home Page.

3.5 DATA INTEGRITY

Data integrity is the overall completeness, accuracy and consistency of data. This can be indicated by the absence of alteration between two instances or between two updates of a data record, meaning data is intact and unchanged. Data integrity is usually imposed during the database design phase through the use of standard procedures and rules. The concept of data integrity ensures that all data in a database can be traced and connected to other data. This ensures that everything is recoverable and searchable.

Having a single, well-defined and well-controlled data integrity system increases stability, performance, reusability and maintainability. Data values are standardized according to a data model and data type. All characteristics of the data must be correct including business rules, relations, dates and definitions for data to be complete. Data integrity is imposed within

a database when it is designed and is authenticated through the ongoing use of error checking and validation routines. As a simple example, to maintain data integrity numeric columns/cells should not accept alphabetic data.

3.6 FLOWCHART

The flowchart for the E-Learning Platform encapsulates the intricate system in sequence of actions and decision points involved in its operation, providing a visual view for understanding the systematic flow of activities. At its core, the flowchart delineates the stepwise processes initiated by user interactions, the validation and categorization of data, communication with the database, and the subsequent generation and presentation of reports.

Commencing with the entry point, often represented by the user's interaction, the flowchart systematically guides through essential processes such as user registration, login, expense entry, and report generation. Decision points within the flowchart capture instances where the system evaluates conditions, such as validating user data or verifying login credentials, influencing the subsequent course of actions. Key processes, depicted in distinct shapes and connected by arrows, convey the logical flow from one operation to another.

For instance, the flowchart delineates how the E Learning Platform communicates with the database for tasks like storing and retrieving user and expense data. Decision diamonds illustrate branches in the logic, signifying points where the system evaluates conditions and proceeds accordingly.

This visual representation not only aids developers in understanding the operational logic but also serves as a valuable tool for stakeholders to grasp the intricacies functionality. The flowchart serves as a blueprint, guiding the development team through the systematic execution of tasks, ensuring that the website functions cohesively and efficiently. Ultimately, the E Learning Platform flowchart is a pivotal resource in comprehending, communicating, and refining the logical sequence of processes within the system.

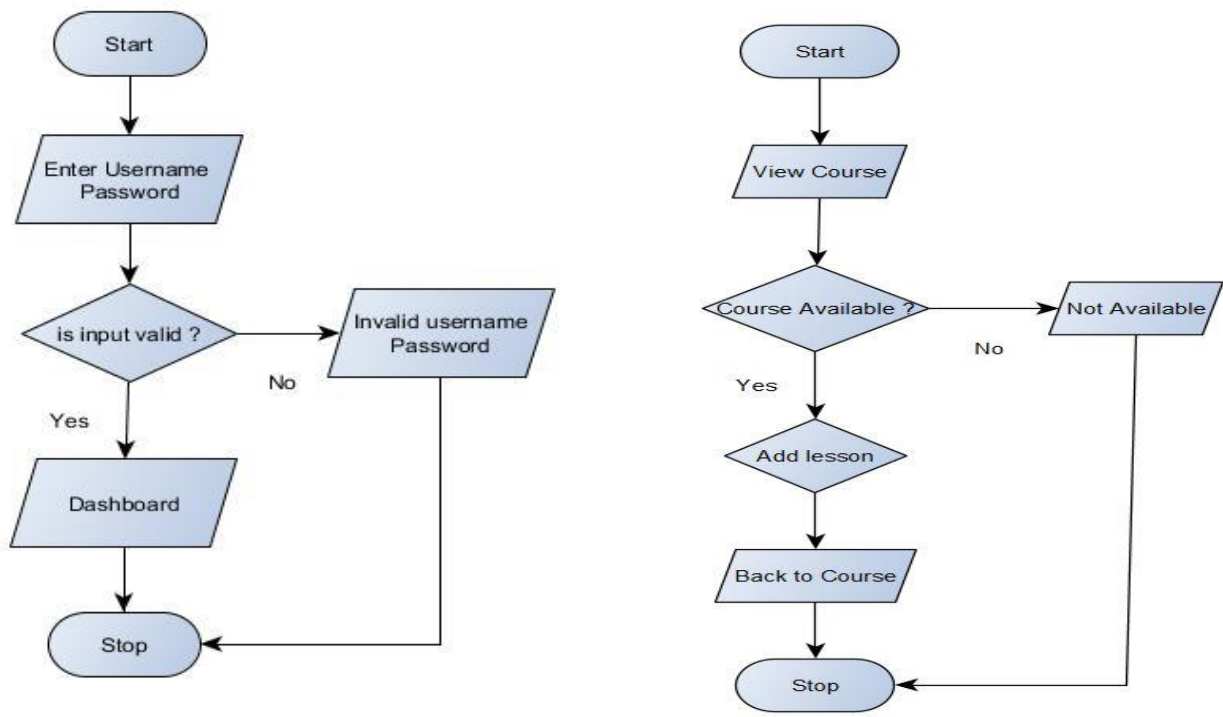


Figure 3.6 Flowchart for E Learning Platform

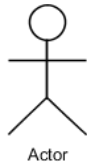
3.7 USE CASE DIAGRAM

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.

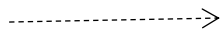


System - System is used to define the scope of the use case and drawn as rectangle.

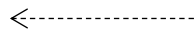


There are two functions: -

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>>



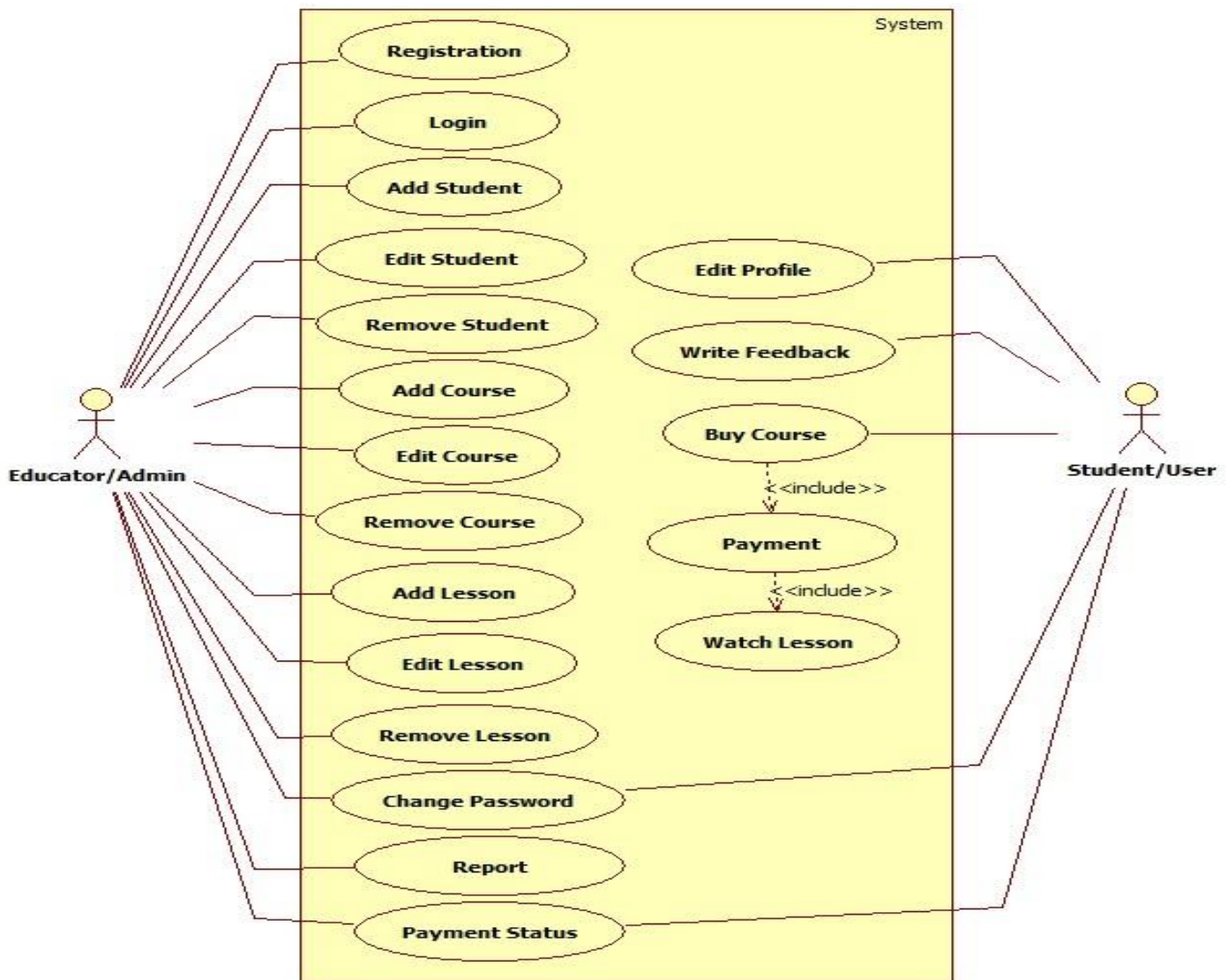


Figure 3.7 Use Case Diagram for E Learning Platform

3.8 DATA FLOW DIAGRAM

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.

3.8.1 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.

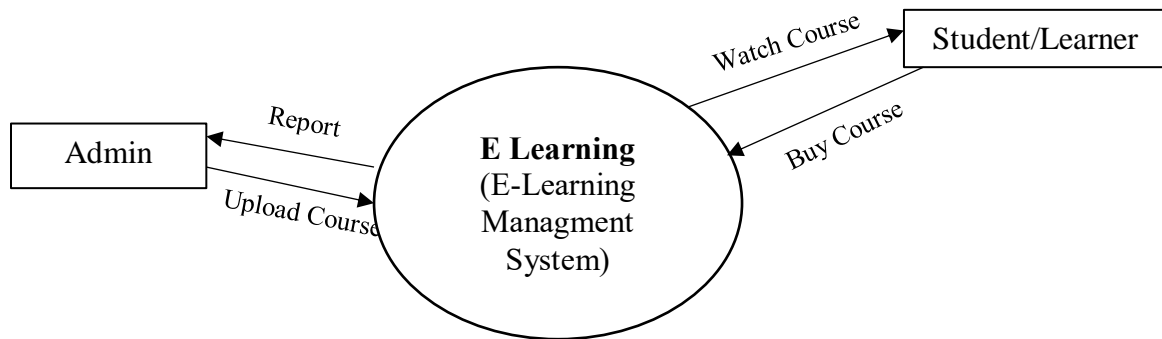


Figure 3.8.1 Zero Level DFD for E Learning Platform

3.8.2 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.

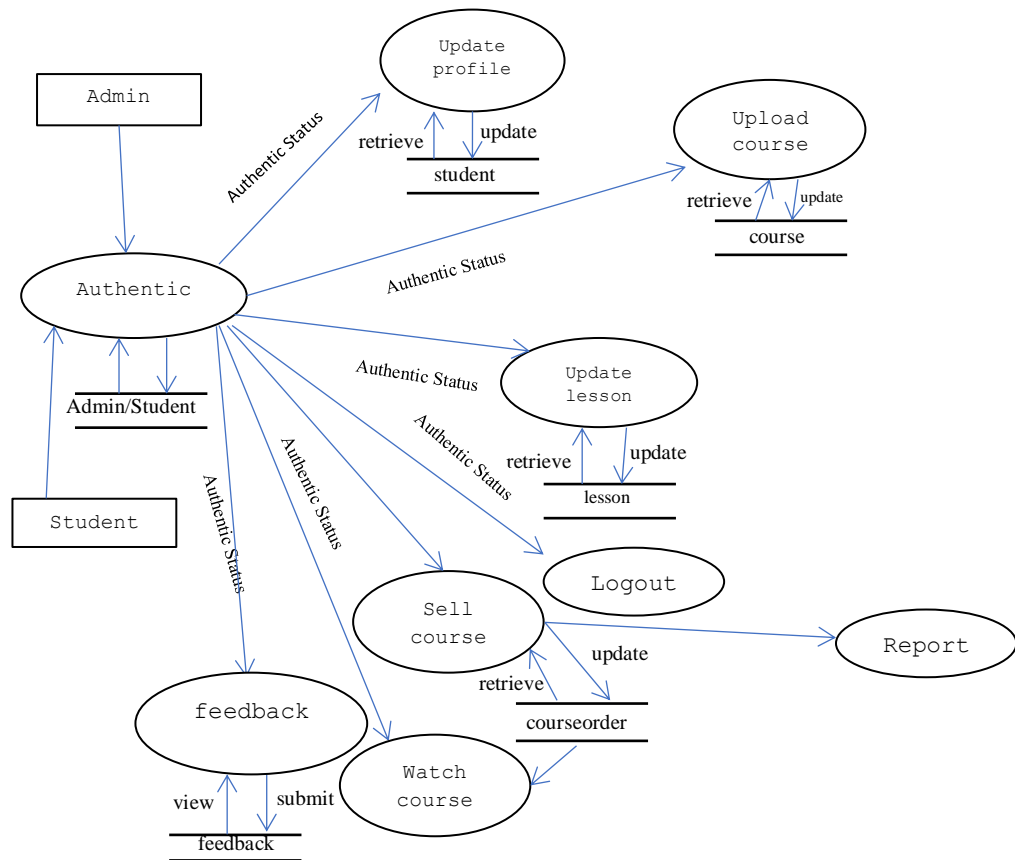


Figure 3.8.2 First Level DFD for E Learning Platform

3.8.3 DFD 2 Level

The DFD 2 Level describes flow of data in more detail. DFD Level 2 goes one step deeper into parts of Level 1. It may require more text to reach the necessary level of detail about the system's functioning.

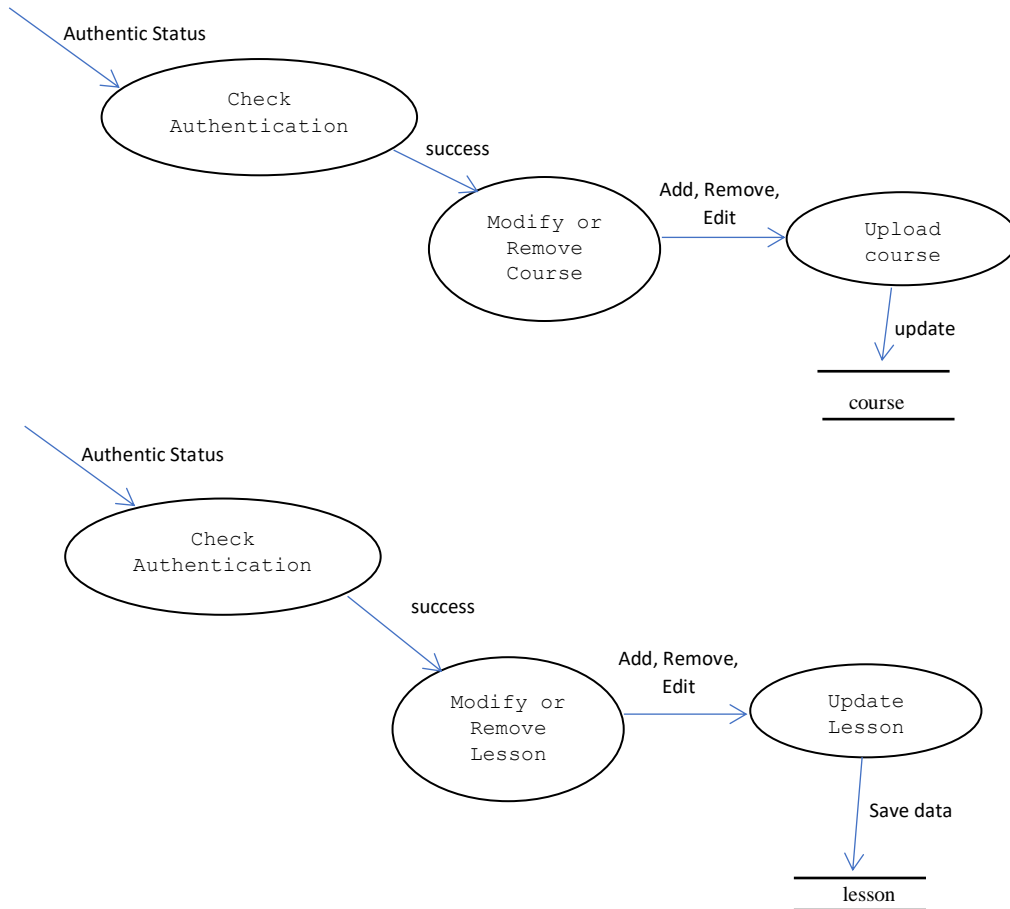


Figure 3.8.3 Second Level DFD for E Learning Platform

3.9 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.

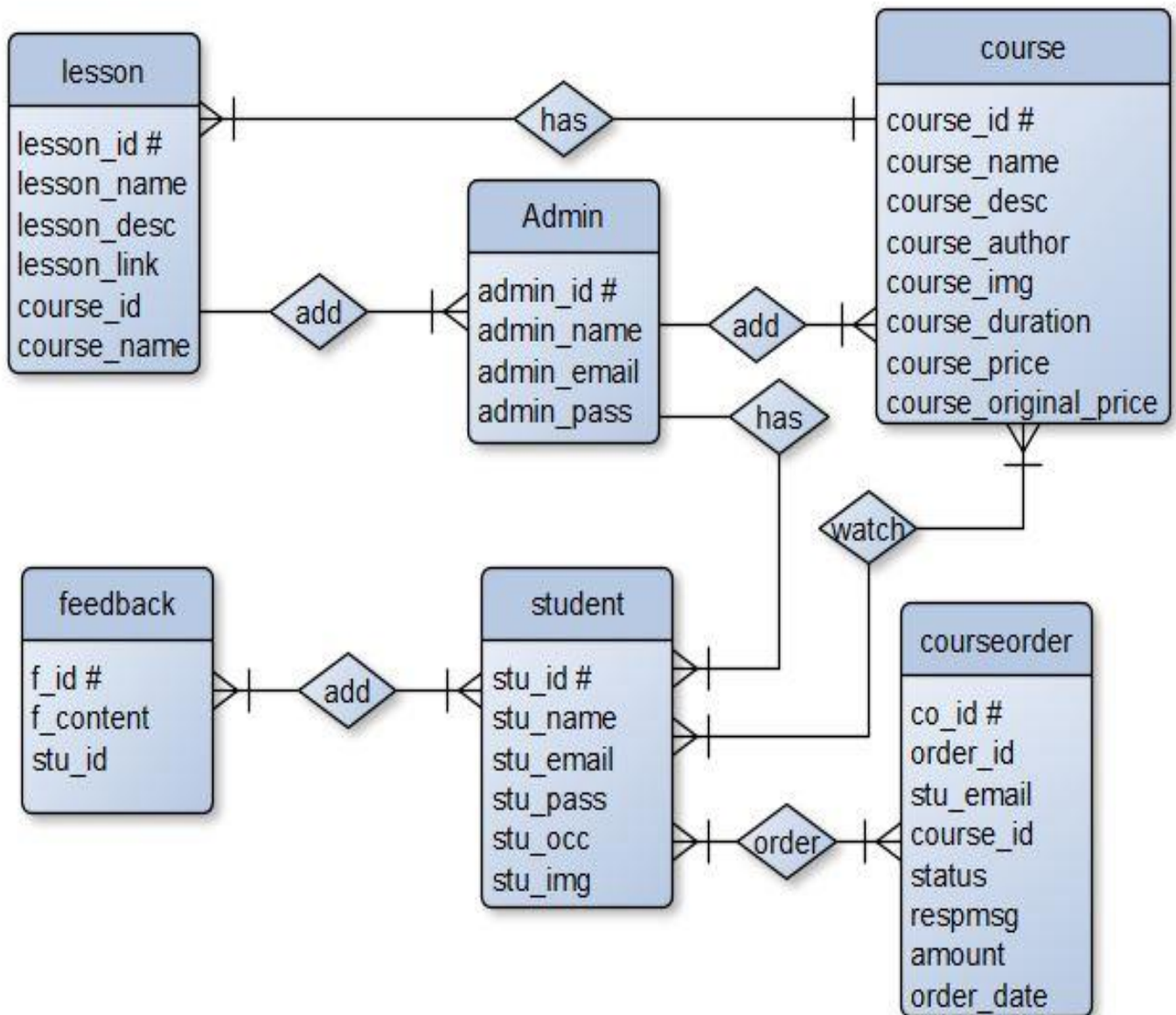


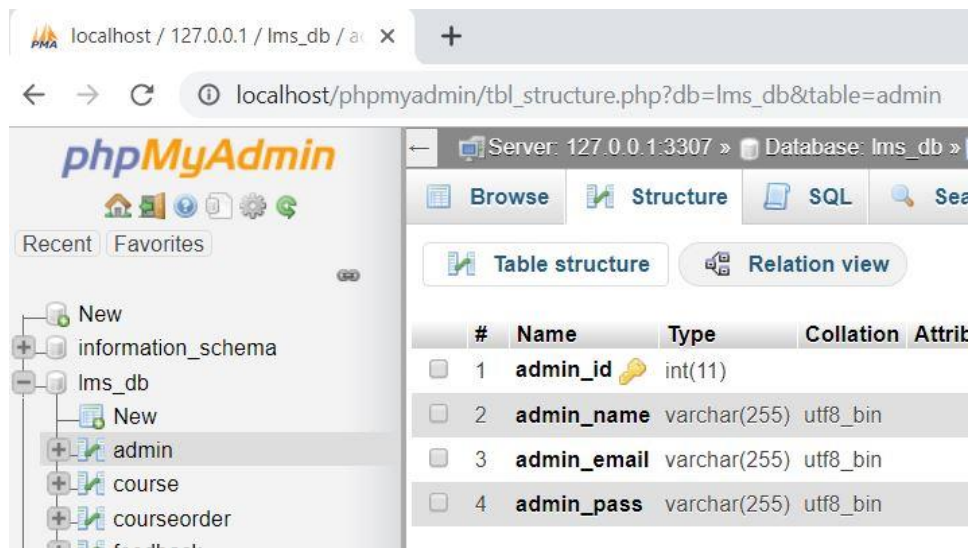
Figure 3.9 ER Diagram of E Learning Platform

3.10 DATA DICTIONARY

In order to maintain the data of the database a number of tables are used. Various tables contain data about the various entities.

Attribute	Data Type	Description
admin_id #	int(11)	Stores Admin ID
admin_name	varchar(255)	Stores Admin Name
admin_email	varchar(255)	Stores Admin Email ID
admin_pass	varchar(255)	Stores Admin Password

Table 3.10 Admin (Stores Admin Detail)



Attribute	Data Type	Description
stu_id #	int(11)	Stores student ID
stu_name	varchar(255)	Stores student Name
stu_email	varchar(255)	Stores student Email ID
stu_pass	varchar(255)	Stores student Password
stu_occ	varchar(255)	Stores student occupation
stu_img	text	Stores student profile picture

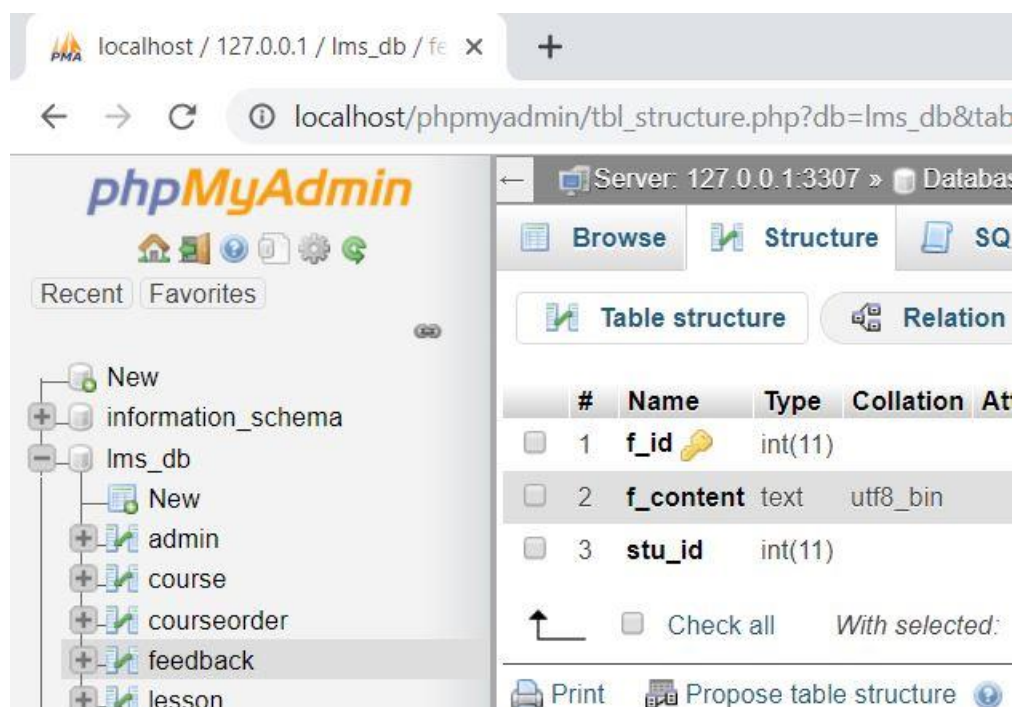
Table 3.11 Student (Stores Student Detail)

The screenshot shows the phpMyAdmin interface. On the left, the database structure is visible, including 'information_schema', 'lms_db', and several tables like 'admin', 'course', 'courseorder', 'feedback', 'lesson', and 'student'. The main panel displays the 'Table structure' for the 'stu' table. The table has 6 columns:

#	Name	Type	Collation	Attri
1	stu_id	int(11)		
2	stu_name	varchar(255)	utf8_bin	
3	stu_email	varchar(255)	utf8_bin	
4	stu_pass	varchar(255)	utf8_bin	
5	stu_occ	varchar(255)	utf8_bin	
6	stu_img	text	utf8_bin	

Attribute	Data Type	Description
f_id #	int(11)	Stores Feedback ID
f_content	text	Stores Feedback content
stu_id	int(11)	Stores Student ID

Table 3.12 Feedback (Stores Feedback Detail)



Attribute	Data Type	Description
course_id #	int(11)	Stores Course ID
course_name	text	Stores course Name
course_desc	text	Stores course description
course_author	varchar(255)	Stores course author/instructor
course_img	text	Stores course display picture
course_duration	text	Stores course duration
course_price	int(11)	Stores course selling price
course_original_price	int(11)	Stores course original price

Table 3.13 Course (Stores Course Detail)

The screenshot shows the phpMyAdmin interface. On the left, the database structure is visible, with 'lms_db' selected and the 'course' table highlighted. The main panel displays the 'Table structure' for 'course'. The columns are listed as follows:

#	Name	Type	Collation	Attributes
1	course_id	int(11)		Primary Key
2	course_name	text	utf8_bin	
3	course_desc	text	utf8_bin	
4	course_author	varchar(255)	utf8_bin	
5	course_img	text	utf8_bin	
6	course_duration	text	utf8_bin	
7	course_price	int(11)		
8	course_original_price	int(11)		

Attribute	Data Type	Description
lesson_id #	int(11)	Stores Lesson ID
lesson_name	text	Stores Lesson name
lesson_desc	text	Stores lesson description
lesson_link	text	Stores lesson video link/video file
course_id	int(11)	Stores course ID
course_name	text	Stores course Name

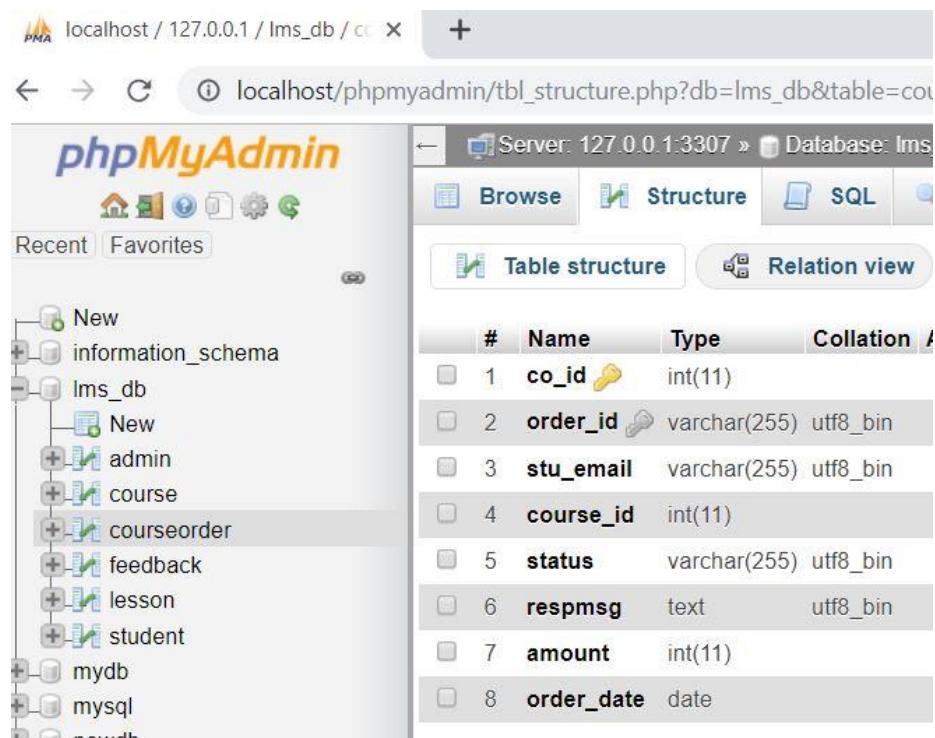
Table 3.14 Lesson (Stores Lesson Detail)

The screenshot shows the phpMyAdmin web interface. The browser address bar indicates the URL: localhost/phpmyadmin/tbl_structure.php?db=lms_db&table=lesson. The interface includes a sidebar on the left with a tree view of databases and tables. The 'lms_db' database is expanded, showing tables: admin, course, courseorder, feedback, lesson (selected), and student. The main panel displays the 'Table structure' view for the 'lesson' table. It lists six columns with their respective data types and collations.

#	Name	Type	Collation	Attr
1	lesson_id	int(11)		Primary Key
2	lesson_name	text	utf8_bin	
3	lesson_desc	text	utf8_bin	
4	lesson_link	text	utf8_bin	
5	course_id	int(11)		
6	course_name	text	utf8_bin	

Attribute	Data Type	Description
co_id #	int(11)	Stores course order ID
order_id	varchar(255)	Stores Order ID (Random)
stu_email	varchar(255)	Stores student email id
course_id	int(11)	Stores course id
Status	varchar(255)	Stores payment status
Respmsg	text	Stores payment response msg
Amount	int(11)	Stores course amount
order_date	date	Stores purchase date

Table 3.15 Course order (Stores Course order Detail)



The screenshot shows the phpMyAdmin interface. On the left, the database 'lms_db' is selected, and the table 'courseorder' is highlighted. On the right, the 'Table structure' view is displayed, showing the following columns:

#	Name	Type	Collation
1	co_id	int(11)	
2	order_id	varchar(255)	utf8_bin
3	stu_email	varchar(255)	utf8_bin
4	course_id	int(11)	
5	status	varchar(255)	utf8_bin
6	respmsg	text	utf8_bin
7	amount	int(11)	
8	order_date	date	

3.11 USER INTERFACE DESIGN

User interface design is concerned with the dialogue between a user and the computer. It is concerned with everything from starting the system or logging into the system to the eventually presentation of desired inputs and outputs. The overall flow of screens and messages is called a dialogue.

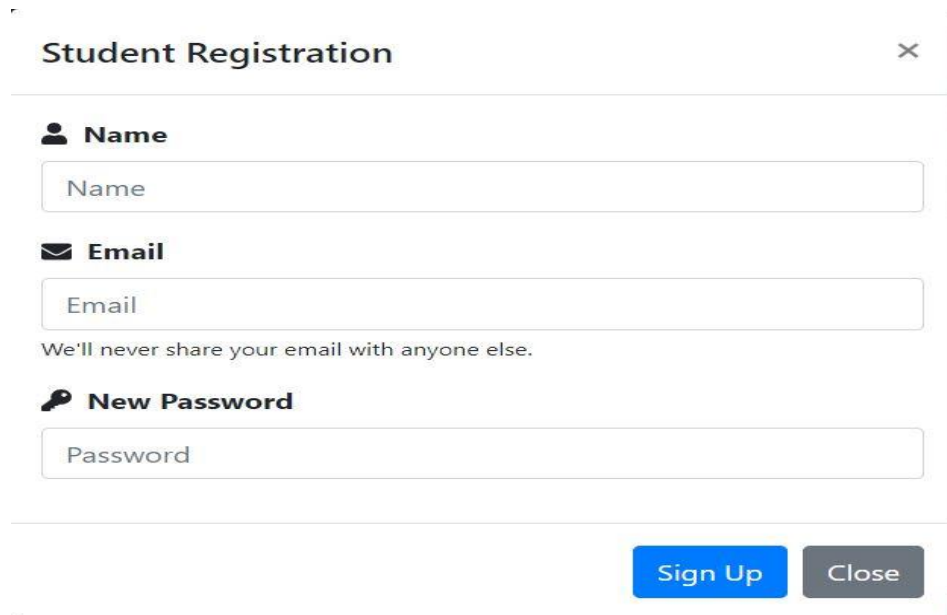
- It should be attractive and simple to use.
- The system user should always be aware of what to do next.
- Messages, instruction and information should be displayed long enough to allow the system user to read them.
- An user should not be allowed to proceed without correcting an error.
- An user should never get an fatal error instead provide them understandable errors.

CHAPTER 4

FORM DESIGN/SCREENSHOTS

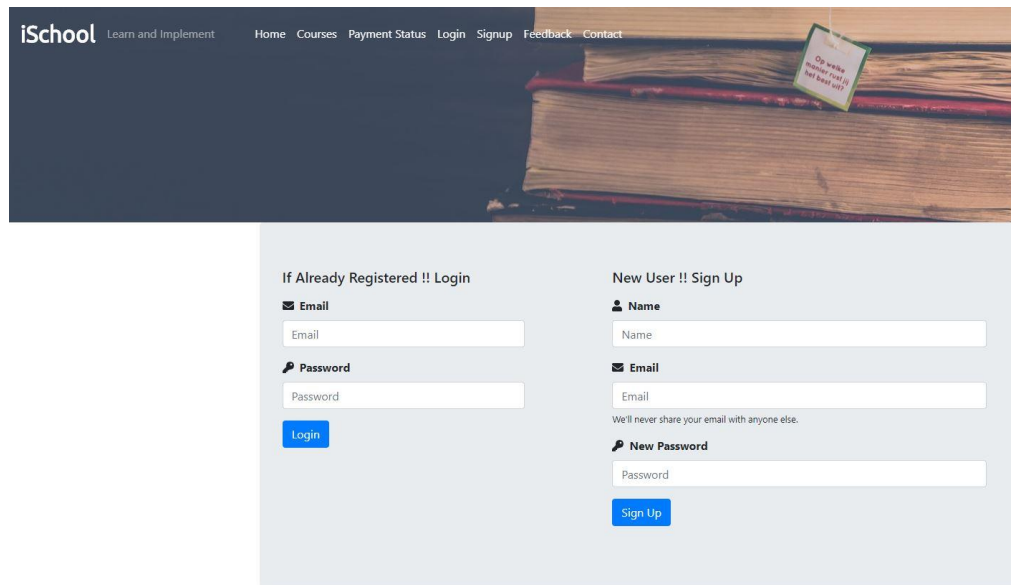
4.1 INTRODUCTION

The form design for the E Learning Platform is a fundamental aspect that governs the user interface, providing a structured and intuitive framework for users to input and interact with data. This design aims to create a seamless and user-friendly experience by organizing elements such as text fields, dropdowns, and buttons in a visually website and logically arranged manner. Users engage with the form to register, log in, and input details, and the design emphasizes clarity, simplicity, and efficiency in capturing accurate information. By carefully considering user input requirements, validation processes, and responsive design principles, the form design ensures a positive user experience, encouraging user engagement and fostering effective communication between users and the website.



The screenshot displays a 'Student Registration' modal form. At the top, the title 'Student Registration' is followed by a close button (X). The form contains three input fields: 'Name' (preceded by a person icon), 'Email' (preceded by an envelope icon), and 'New Password' (preceded by a key icon). Below the email field, a small text line reads 'We'll never share your email with anyone else.' At the bottom right, there are two buttons: a blue 'Sign Up' button and a grey 'Close' button.

Figure 4.1 Student Registration



The page features a dark blue header with the iSchool logo and navigation links. The main content area is light blue and contains two forms: 'If Already Registered !! Login' and 'New User !! Sign Up'. The login form has fields for Email and Password, and a Login button. The sign-up form has fields for Name, Email, and New Password, and a Sign Up button. A small tag on the books in the background reads 'Do create your own ID, not find any!'.

iSchool Learn and Implement Home Courses Payment Status Login Signup Feedback Contact

If Already Registered !! Login

Email

Password

Login

New User !! Sign Up

Name

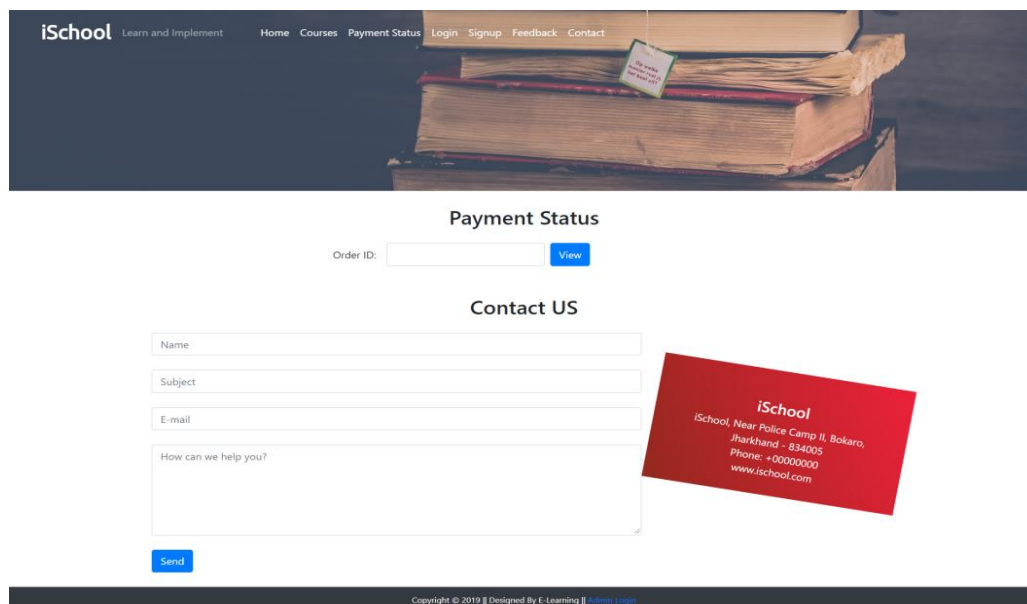
Email

We'll never share your email with anyone else.

New Password

Sign Up

Figure 4.2 Login Or Sign Up



The page features a dark blue header with the iSchool logo and navigation links. The main content area is white and contains two sections: 'Payment Status' and 'Contact US'. The Payment Status section has an Order ID input field and a View button. The Contact US section has input fields for Name, Subject, and E-mail, and a large text area for the message. A red business card for iSchool is displayed on the right. The footer contains copyright information.

iSchool Learn and Implement Home Courses Payment Status Login Signup Feedback Contact

Payment Status

Order ID: View

Contact US

Name

Subject

E-mail

How can we help you?

Send

iSchool
iSchool, Near Police Camp II, Bokaro,
Jharkhand - 834005
Phone: +000000000
www.ischool.com

Copyright © 2019 | Designed By E-Learning | [iSchool Login](#)

Figure 4.3 Payment Status

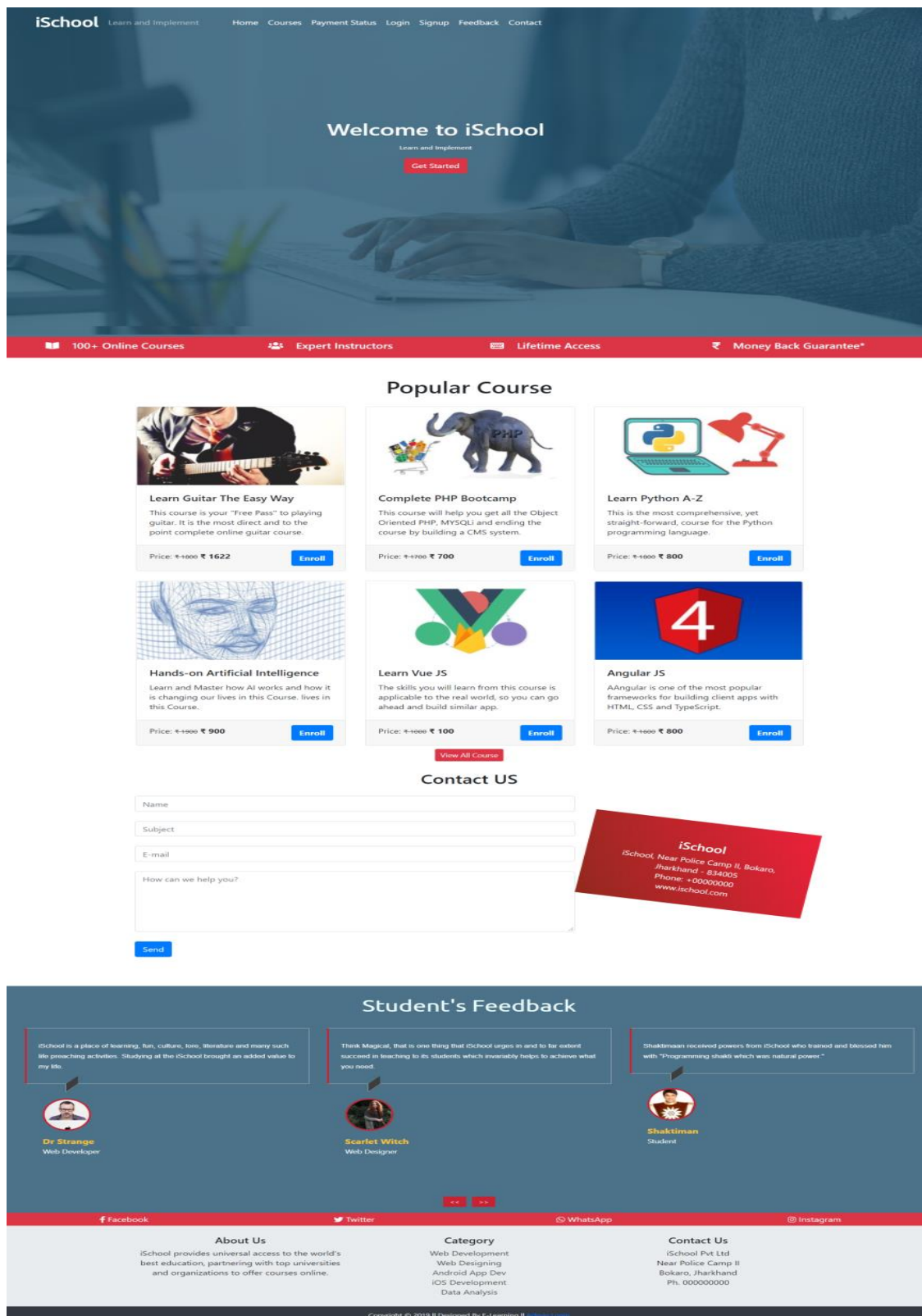


Figure 4.4 Home Page

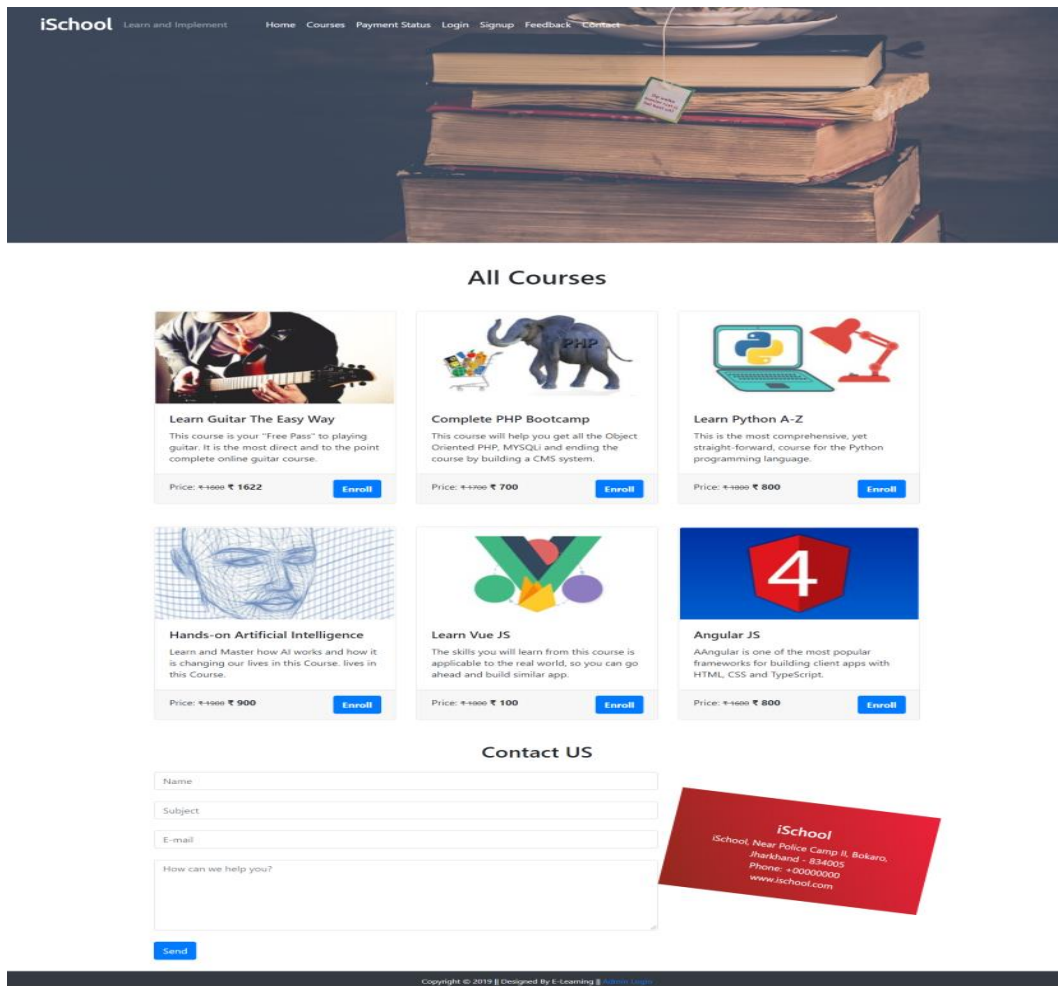


Figure 4.5 Courses

The screenshot displays the iSchool student profile page. On the left side, there is a sidebar containing a profile picture of a man and a list of navigation links: Profile, My Courses, Feedback, Change Password, and Logout. The main content area is a form for updating the student's profile. It includes the following fields: Student ID (172), Email (ant@example.com), Name (Ant Man), and Occupation (Web Developer). There is also an "Upload Image" section with a "Choose File" button and a "No file chosen" status. An "Update" button is located at the bottom of the form.

Figure 4.6 Student Profile

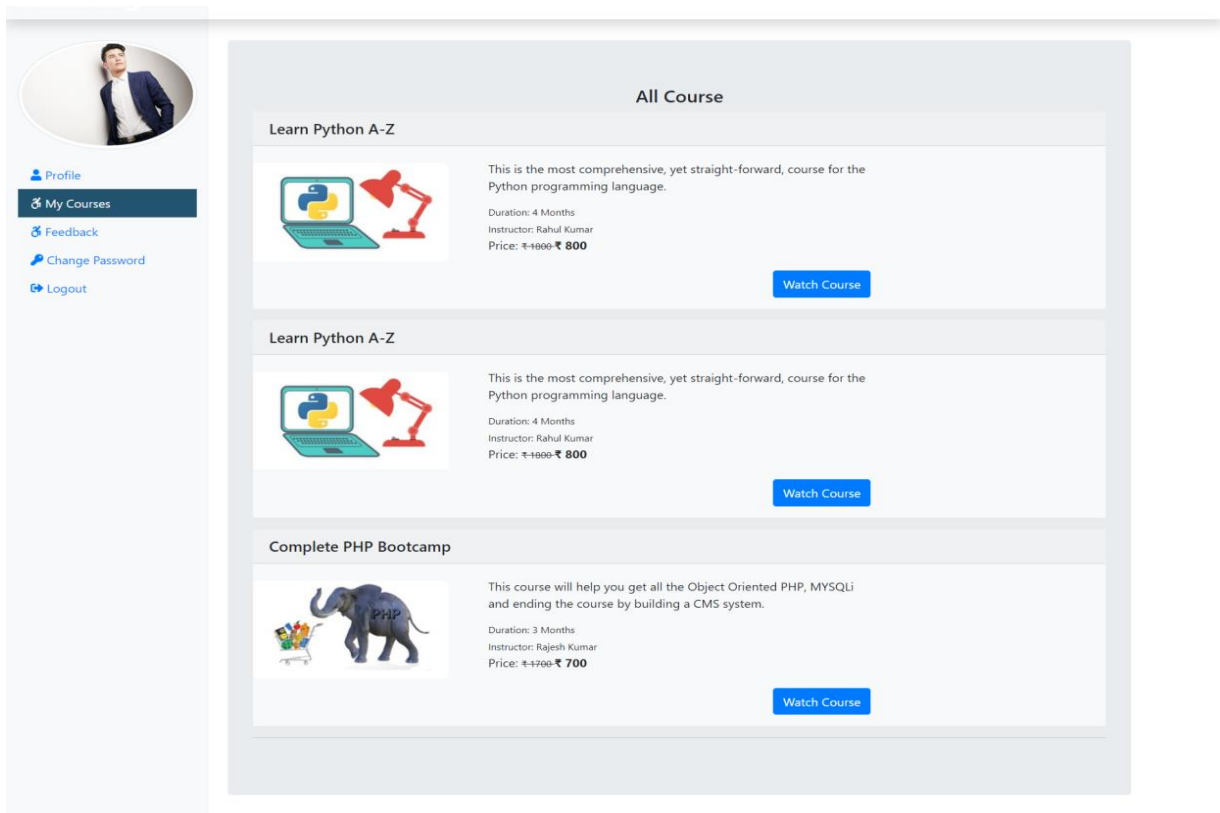


Figure 4.7 My Courses

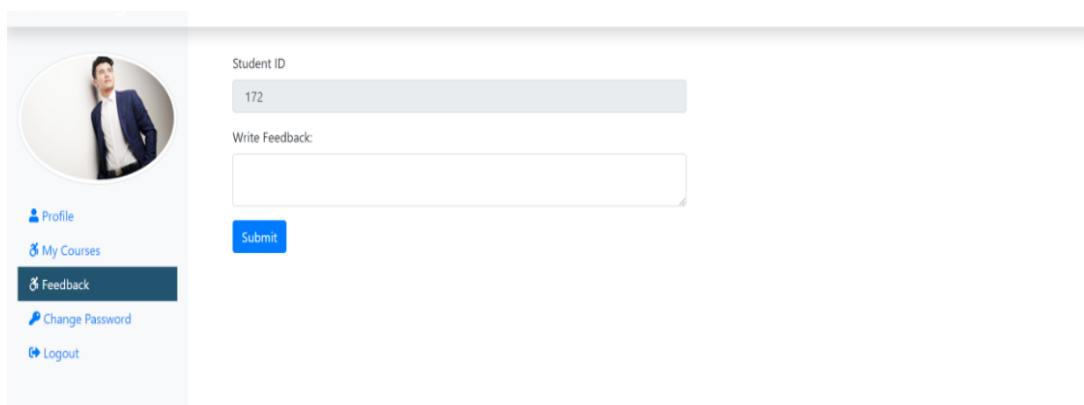



Figure 4.8 Student Feedback



- Profile
- My Courses
- Feedback
- Change Password**
- Logout

Email

ant@example.com

New Password

New Password

Update Reset

Figure 4.9 Student Change Password

E-Learning Admin Area

- Dashboard**
- Courses
- Lessons
- Students
- Sell Report
- Payment Status
- Feedback
- Change Password
- Logout

Courses

6

View

Students

5

View

Sold

4

View





Course Ordered					
Order ID	Course ID	Student Email	Order Date	Amount	Action
ORDS50203786	9	shaktiman@ischool.com	2019-09-11	700	
ORDS98956453	10	ant@example.com	2019-09-12	800	
ORDS69556365	10	ant@example.com	2019-09-12	800	
ORDS81997012	9	ant@example.com	2019-09-12	700	

Figure 4.10 Admin Dashboard

E-Learning Admin Area

Dashboard

Courses

Lessons

Students

Sell Report

Payment Status

Feedback

Change Password

Logout

List of Courses













Course ID	Name	Author	Action
8	Learn Guitar The Easy Way	Rajesh Kumar	 
9	Complete PHP Bootcamp	Rajesh Kumar	 
10	Learn Python A-Z	Rahul Kumar	 
11	Hands-on Artificial Intelligence	Jay Veeru	 
12	Learn Vue JS	Jay Shukla	 
13	Angular JS	Sonam Gupta	 



Figure 4.11 Admin Courses

Dashboard

Courses

Lessons

Students

Sell Report

Payment Status

Feedback

Change Password

Logout

Add New Course

Course Name

Course Description

Author

Course Duration

Course Original Price

Course Selling Price

Course Image

Choose File

No file chosen

Submit

Close

Figure 4.12 Add Course

Dashboard
Courses
Lessons
Students
Sell Report
Payment Status
Feedback
Change Password
Logout

Update Course Details

Course ID
8

Course Name
Learn Guitar The Easy Way

Course Description
This course is your "Free Pass" to playing guitar. It is the most direct and to the point complete online guitar course.

Author
Rajesh Kumar

Course Duration
2 Months

Course Original Price
1800

Course Selling Price
1622


Course Image

 No file chosen

Figure 4.13 Edit course

E-Learning Admin Area

Dashboard
Courses
Lessons
Students
Sell Report
Payment Status
Feedback
Change Password
Logout

Enter Course ID:

Course ID : 8 Course Name: Learn Guitar The Easy Way

Lesson ID	Lesson Name	Lesson Link	Action
39	Introduction to Guitar	../lessonvid/video7.mp4	<input type="button" value="Edit"/> <input type="button" value="Delete"/>
40	Type of Guitar	../lessonvid/video8.mp4	<input type="button" value="Edit"/> <input type="button" value="Delete"/>



Figure 4.14 Lessons

E-Learning Admin Area

Dashboard

Courses

Lessons

Students

Sell Report

Payment Status

Feedback

Change Password

Logout

Add New Lesson

Course ID

8

Course Name

Learn Guitar The Easy Way

Lesson Name

Lesson Description

Lesson Video Link

Choose File

No file chosen

Submit

Close

Figure 4.15 Add lesson

Dashboard

Courses

Lessons

Students

Sell Report

Payment Status

Feedback

Change Password

Logout

Update Lesson Details

Lesson ID

39

Lesson Name

Introduction to Guitar

Lesson Description

Introduction to Guitar desc1


Course ID

8

Course Name

Learn Guitar The Easy Way

Lesson Link



Choose File

No file chosen

Update

Close

Figure 4.16 Edit lesson

50





E-Learning Admin Area			
<ul style="list-style-type: none"> Dashboard Courses Lessons Students Sell Report Payment Status Feedback Change Password Logout 	List of Students		
	Student ID	Name	Email
	171	Captain Marvel	cap@example.com
	172	Ant Man	ant@example.com
	173	Dr Strange	doc@example.com
	174	Scarlet Witch	witch@example.com
	175	Shaktiman	shaktiman@school.com
			Action
			 
			 



Figure 4.17 List of Students

E-Learning Admin Area	
<ul style="list-style-type: none"> Dashboard Courses Lessons Students Sell Report Payment Status Feedback Change Password Logout 	<div>Add New Student</div> <div> <div>Name</div> <input type="text"/> </div> <div> <div>Email</div> <input type="text"/> </div> <div> <div>Password</div> <input type="password"/> </div> <div> <div>Occupation</div> <input type="text"/> </div> <div> <div>Submit</div> <div>Close</div> </div>

Figure 4.18 Add New Student

E-Learning Admin Area

Dashboard

Courses

Lessons

Students

Sell Report

Payment Status

Feedback

Change Password

Logout

Update Student Details

ID

171

Name

Captain Marvel

Email

cap@example.com

Password

123456

Occupation

Web Designer

Update

Close

Figure 4.19 Edit Student

E-Learning Admin Area

Dashboard

Courses

Lessons

Students

Sell Report

Payment Status

Feedback

Change Password

Logout

dd-mm-yyyy

to

dd-mm-yyyy

Search

Details

Order ID	Course ID	Student Email	Payment Status	order Date	Amount
ORDS50203786	9	shaktiman@ischool.com	TXN_SUCCESS	2019-09-11	700
ORDS98956453	10	ant@example.com	TXN_SUCCESS	2019-09-12	800
ORDS69556365	10	ant@example.com	TXN_SUCCESS	2019-09-12	800
ORDS81997012	9	ant@example.com	TXN_SUCCESS	2019-09-12	700

Print

Figure 4.20 Sell Report

[Dashboard](#)
[Courses](#)
[Lessons](#)
[Students](#)
[Sell Report](#)
[Payment Status](#)
[Feedback](#)
[Change Password](#)
[Logout](#)

Payment Status

Order ID: [View](#)

Payment Receipt

TXNID	20190911111212800110168657100836753
BANKTXNID	17614676615
ORDERID	ORD550203786
TXNAMOUNT	700.00
STATUS	TXN_SUCCESS
TXNTYPE	SALE
GATEWAYNAME	ANDB
RESPCODE	01
RESPMSG	Txn Success
BANKNAME	ANDB
MID	XYUdwn43591963499650
PAYMENTMODE	NB
REFUNDAMT	0.00
TXNDATE	2019-09-11 21:37:49.0
Print Receipt	

Figure 4.21 Admin Payment status

E-Learning Admin Area

[Dashboard](#)
[Courses](#)
[Lessons](#)
[Students](#)
[Sell Report](#)
[Payment Status](#)
[Feedback](#)
[Change Password](#)
[Logout](#)

List of Feedbacks

Feedback ID	Content	Student ID	Action
3	My life at iSchool made me stronger and took me a step ahead for being an independent women. I am thankful to all the teachers who supported us and corrected us throughout our career. I am very grateful to the iSchool for providing us the best of placement opportunities and finally I got placed in DC Marvel.	171	Delete
8	I am grateful to iSchool - both the faculty and the Training & Placement Department. They have made efforts ensuring maximum number of placed students. Due to the efforts made by the faculty and placement cell. I was able to bag a job in the second company.	172	Delete
9	iSchool is a place of learning, fun, culture, lore, literature and many such life preaching activities. Studying at the iSchool brought an added value to my life.	173	Delete
10	Think Magical, that is one thing that iSchool urges in and to far extent succeed in teaching to its students which invariably helps to achieve what you need.	174	Delete
11	Shaktimaan received powers from iSchool who trained and blessed him with "Programming shakti which was natural power."	175	Delete

Figure 4.22 Student Feedback

E-Learning Admin Area

Dashboard

Courses

Lessons

Students

Sell Report

Payment Status

Feedback

Change Password

Logout

Email

admin@gmail.com

New Password

New Password

Update

Reset

Figure 4.23 Admin Change Password

54

CHAPTER 5

CODING

5.1 INTRODUCTION

Coding serves as the backbone of the E Learning Platform, translating the conceptual framework into a functional and interactive software solution. This intricate process involves the implementation of algorithms, data structures, and user interface elements to bring the envisioned features to life. The codebase is meticulously crafted using programming languages such, or others, chosen for their suitability to the project's requirements.

The coding phase encompasses various aspects, including backend logic for user authentication, expense calculations, and database interactions, as well as frontend development for creating an intuitive and visually website user interface. Through diligent coding practices, adherence to coding standards, and continuous testing, the development team aims to produce a robust and reliable E Learning Platform that seamlessly aligns with user expectations and operational requirements.

dbConnection.php

```
<?php
$db_host = "localhost:3307";
$db_user = "root";
$db_password = "";
$db_name = "lms_db";

// Create Connection
$conn = new mysqli($db_host, $db_user, $db_password, $db_name);

// Check Connection
if($conn->connect_error) {
    die("connection failed");
}
```

```

}
// else {
// echo"connected";
// }
?>

```

./mainInclude/header.php

```

<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8" />
  <meta name="viewport" content="width=device-width, initial-scale=1.0" />
  <meta http-equiv="X-UA-Compatible" content="ie=edge" />

  <!-- Bootstrap CSS -->
  <link rel="stylesheet" type="text/css" href="css/bootstrap.min.css">

  <!-- Font Awesome CSS -->
  <link rel="stylesheet" type="text/css" href="css/all.min.css">

  <!-- Google Font -->
  <link href="https://fonts.googleapis.com/css?family=Ubuntu" rel="stylesheet">

  <!-- Student Testimonial Owl Slider CSS -->
  <link rel="stylesheet" type="text/css" href="css/owl.min.css">
  <link rel="stylesheet" type="text/css" href="css/owl.theme.min.css">
  <link rel="stylesheet" type="text/css" href="css/testyslider.css">

  <!-- Custom Style CSS -->
  <link rel="stylesheet" type="text/css" href="./css/style.css" />
  <title>iSchool</title>
</head>
<body>
  <!-- Start Nagigation -->
  <nav class="navbar navbar-expand-sm navbar-dark pl-5 fixed-top">
    <a href="index.php" class="navbar-brand">iSchool</a>
    <span class="navbar-text">Learn and Implement</span>
    <button type="button" class="navbar-toggler" data-toggle="collapse" data-
target="#myMenu">
      <span class="navbar-toggler-icon"></span>
    </button>
    <div class="collapse navbar-collapse" id="myMenu">

```



```

<ul class="navbar-nav pl-5 custom-nav">
  <li class="nav-item custom-nav-item"><a href="index.php" class="nav-link">Home</a></li>
  <li class="nav-item custom-nav-item"><a href="courses.php" class="nav-link">Courses</a></li>
  <li class="nav-item custom-nav-item"><a href="paymentstatus.php" class="nav-link">Payment Status</a></li>
  <?php
    session_start();
    if (isset($_SESSION['is_login'])) {
      echo '<li class="nav-item custom-nav-item"><a href="student/studentProfile.php" class="nav-link">My Profile</a></li> <li class="nav-item custom-nav-item"><a href="logout.php" class="nav-link">Logout</a></li>';
    } else {
      echo '<li class="nav-item custom-nav-item"><a href="#login" class="nav-link" data-toggle="modal" data-target="#stuLoginModalCenter">Login</a></li> <li class="nav-item custom-nav-item"><a href="#signup" class="nav-link" data-toggle="modal" data-target="#stuRegModalCenter">Signup</a></li>';
    }
  ?>
  <li class="nav-item custom-nav-item"><a href="#Feedback" class="nav-link">Feedback</a></li>
  <li class="nav-item custom-nav-item"><a href="#Contact" class="nav-link">Contact</a></li>
</ul>
</div>
</nav> <!-- End Navigation -->

```

./mainInclude/footer.php

```

<!-- Start Footer -->
<footer class="container-fluid bg-dark text-center p-2">
  <small class="text-white">Copyright &copy; 2019 | | Designed By E-Learning | | <?php
    if (isset($_SESSION['is_admin_login'])) {
      echo '<a href="admin/adminDashboard.php"> Admin Dashboard</a> <a href="logout.php">Logout</a>';
    } else {
      echo '<a href="#login" data-toggle="modal" data-target="#adminLoginModalCenter"> Admin Login</a>';
    }
  ?>
</small>

```

```
</footer> <!-- End Footer -->
```

```
<!-- Start Student Registration Modal -->
<div class="modal fade" id="stuRegModalCenter" tabindex="-1" role="dialog" aria-
labelledby="stuRegModalCenterTitle" aria-hidden="true">
  <div class="modal-dialog modal-dialog-centered" role="document">
    <div class="modal-content">
      <div class="modal-header">
        <h5 class="modal-title" id="stuRegModalCenterTitle">Student Registration</h5>
        <button type="button" class="close" data-dismiss="modal" aria-label="Close"
onclick="clearAllStuReg()">
          <span aria-hidden="true">&times;</span>
        </button>
      </div>
      <div class="modal-body">
        <!--Start Form Registration-->
        <?php include('studentRegistration.php'); ?>
        <!-- End Form Registration -->
      </div>
      <div class="modal-footer">
        <span id="successMsg"></span>
        <button type="button" class="btn btn-primary" id="signup" onclick="addStu()">Sign
Up</button>
        <button type="button" class="btn btn-secondary" data-dismiss="modal"
onclick="clearAllStuReg()">Close</button>
      </div>
    </div>
  </div>
</div> <!-- End Student Registration Modal -->
```

```
<!-- Start Student Login Modal -->
<div class="modal fade" id="stuLoginModalCenter" tabindex="-1" role="dialog" aria-
labelledby="stuLoginModalCenterTitle" aria-hidden="true">
  <div class="modal-dialog modal-dialog-centered" role="document">
    <div class="modal-content">
      <div class="modal-header">
        <h5 class="modal-title" id="stuLoginModalCenterTitle">Student Login</h5>
        <button type="button" class="close" data-dismiss="modal" aria-label="Close"
onClick="clearStuLoginWithStatus()">
          <span aria-hidden="true">&times;</span>
        </button>
      </div>
      <div class="modal-body">
```

```

        <form role="form" id="stuLoginForm">
            <div class="form-group">
                <i class="fas fa-envelope"></i><label for="stuLogEmail" class="pl-2 font-weight-
bold">Email</label><small id="statusLogMsg1"></small><input type="email"
                class="form-control" placeholder="Email" name="stuLogEmail"
id="stuLogEmail">
            </div>
            <div class="form-group">
                <i class="fas fa-key"></i><label for="stuLogPass" class="pl-2 font-weight-
bold">Password</label><input type="password" class="form-control"
placeholder="Password" name="stuLogPass" id="stuLogPass">
            </div>
        </form>
    </div>
    <div class="modal-footer">
        <small id="statusLogMsg"></small>
        <button type="button" class="btn btn-primary" id="stuLoginBtn"
onclick="checkStuLogin()">Login</button>
        <button type="button" class="btn btn-secondary" data-dismiss="modal"
onClick="clearStuLoginWithStatus()">Cancel</button>
    </div>
</div>
</div>
</div>
</div> <!-- End Student Login Modal -->

```

```

<!-- Start Admin Login Modal -->
<div class="modal fade" id="adminLoginModalCenter" tabindex="-1" role="dialog" aria-
labelledby="adminLoginModalCenterTitle" aria-hidden="true">
    <div class="modal-dialog modal-dialog-centered" role="document">
        <div class="modal-content">
            <div class="modal-header">
                <h5 class="modal-title" id="adminLoginModalCenterTitle">Admin Login</h5>
                <button type="button" class="close" data-dismiss="modal" aria-label="Close"
onClick="clearAdminLoginWithStatus()">
                    <span aria-hidden="true">&times;</span>
                </button>
            </div>
            <div class="modal-body">
                <form role="form" id="adminLoginForm">
                    <div class="form-group">
                        <i class="fas fa-envelope"></i><label for="adminLogEmail" class="pl-2 font-weight-
bold">Email</label><input type="email"

```

```

        class="form-control" placeholder="Email" name="adminLogEmail"
id="adminLogEmail">
    </div>
    <div class="form-group">
        <i class="fas fa-key"></i><label for="adminLogPass" class="pl-2 font-weight-
bold">Password</label><input type="password" class="form-control"
placeholder="Password" name="adminLogPass" id="adminLogPass">
    </div>
</form>
</div>
<div class="modal-footer">
    <small id="statusAdminLogMsg"></small>
    <button type="button" class="btn btn-primary" id="adminLoginBtn"
onclick="checkAdminLogin()">Login</button>
    <button type="button" class="btn btn-secondary" data-dismiss="modal"
onClick="clearAdminLoginWithStatus()">Cancel</button>
</div>
</div>
</div>
</div> <!-- End Admin Login Modal -->

<!-- JQuery and Bootstrap JavaScript -->
<script type="text/javascript" src="js/jquery.min.js"></script>
<script type="text/javascript" src="js/popper.min.js"></script>
<script type="text/javascript" src="js/bootstrap.min.js"></script>

<!-- Font Awesome JS -->
<script type="text/javascript" src="js/all.min.js"></script>

<!-- Student Testimonial Owl Slider JS -->
<script type="text/javascript" src="js/owl.min.js"></script>
<script type="text/javascript" src="js/testyslider.js"></script>

<!-- Student Ajax Call JavaScript -->
<script type="text/javascript" src="js/ajaxrequest.js"></script>

<!-- Admin Ajax Call JavaScript -->
<script type="text/javascript" src="js/adminajaxrequest.js"></script>

<!-- Custom JavaScript -->
<script type="text/javascript" src="js/custom.js"></script>

</body>

```

</html>

Student Registration.php

```
<form role="form" id="stuRegForm">
  <div class="form-group">
    <i class="fas fa-user"></i><label for="stuname" class="pl-2 font-weight-
bold">Name</label><small id="statusMsg1"></small><input type="text"
  class="form-control" placeholder="Name" name="stuname" id="stuname">
  </div>
  <div class="form-group">
    <i class="fas fa-envelope"></i><label for="stuemail" class="pl-2 font-weight-
bold">Email</label><small id="statusMsg2"></small><input type="email"
  class="form-control" placeholder="Email" name="stuemail" id="stuemail">
    <small class="form-text">We'll never share your email with anyone else.</small>
  </div>
  <div class="form-group">
    <i class="fas fa-key"></i><label for="stupass" class="pl-2 font-weight-bold">New
  Password</label><small id="statusMsg3"></small><input type="password" class="form-
control" placeholder="Password" name="stupass" id="stupass">
  </div>
</form>
```

Login or Signup.php

```
<?php
include('./dbConnection.php');
// Header Include from mainInclude
include('./mainInclude/header.php');
?>

<div class="container-fluid bg-dark"> <!-- Start Course Page Banner -->
  <div class="row">
    
  </div>
</div> <!-- End Course Page Banner -->

<div class="container jumbotron mb-5">
  <div class="row">
    <div class="col-md-4">
      <h5 class="mb-3">If Already Registered !! Login</h5>
```

```

<form role="form" id="stuLoginForm">
  <div class="form-group">
    <i class="fas fa-envelope"></i><label for="stuLogEmail" class="pl-2 font-weight-
bold">Email</label><small id="statusLogMsg1"></small><input type="email"
    class="form-control" placeholder="Email" name="stuLogEmail" id="stuLogEmail">
  </div>
  <div class="form-group">
    <i class="fas fa-key"></i><label for="stuLogPass" class="pl-2 font-weight-
bold">Password</label><input type="password" class="form-control"
placeholder="Password" name="stuLogPass" id="stuLogPass">
  </div>
  <button type="button" class="btn btn-primary" id="stuLoginBtn"
onclick="checkStuLogin()">Login</button>
</form><br/>
<small id="statusLogMsg"></small>
</div>
<div class="col-md-6 offset-md-1">
<h5 class="mb-3">New User !! Sign Up</h5>
  <form role="form" id="stuRegForm">
    <div class="form-group">
      <i class="fas fa-user"></i><label for="stuname" class="pl-2 font-weight-
bold">Name</label><small id="statusMsg1"></small><input type="text"
      class="form-control" placeholder="Name" name="stuname" id="stuname">
    </div>
    <div class="form-group">
      <i class="fas fa-envelope"></i><label for="stuemail" class="pl-2 font-weight-
bold">Email</label><small id="statusMsg2"></small><input type="email"
      class="form-control" placeholder="Email" name="stuemail" id="stuemail">
      <small class="form-text">We'll never share your email with anyone else.</small>
    </div>
    <div class="form-group">
      <i class="fas fa-key"></i><label for="stupass" class="pl-2 font-weight-bold">New
      Password</label><small id="statusMsg3"></small><input type="password"
class="form-control" placeholder="Password" name="stupass" id="stupass">
    </div>
    <button type="button" class="btn btn-primary" id="signup" onclick="addStu()">Sign
Up</button>
  </form> <br/>
  <small id="successMsg"></small>
</div>
</div>
</div>
<hr/>

```

```
<?php
// Contact Us
include('./contact.php');
?>
```

```
<?php
// Footer Include from mainInclude
include('./mainInclude/footer.php');
?>
```

Home Page (index.php)

```
<?php
include('./dbConnection.php');
// Header Include from mainInclude
include('./mainInclude/header.php');
?>

<!-- Start Video Background-->
<div class="container-fluid remove-vid-marg">
  <div class="vid-parent">
    <video playsinline autoplay muted loop>
      <source src="video/banvid.mp4" />
    </video>
    <div class="vid-overlay"></div>
  </div>
  <div class="vid-content" >
    <h1 class="my-content">Welcome to iSchool</h1>
    <small class="my-content">Learn and Implement</small><br />
    <?php
      if(!isset($_SESSION['is_login'])){
        echo '<a class="btn btn-danger mt-3" href="#" data-toggle="modal" data-
target="#stuRegModalCenter">Get Started</a>';
      } else {
        echo '<a class="btn btn-primary mt-3" href="student/studentProfile.php">My
Profile</a>';
      }
    ?>

  </div>
</div> <!-- End Video Background -->

<div class="container-fluid bg-danger txt-banner"> <!-- Start Text Banner -->
  <div class="row bottom-banner">
    <div class="col-sm">
      <h5> <i class="fas fa-book-open mr-3"></i> 100+ Online Courses</h5>
```

```

</div>
<div class="col-sm">
  <h5><i class="fas fa-users mr-3"></i> Expert Instructors</h5>
</div>
<div class="col-sm">
  <h5><i class="fas fa-keyboard mr-3"></i> Lifetime Access</h5>
</div>
<div class="col-sm">
  <h5><i class="fas fa-rupee-sign mr-3"></i> Money Back Guarantee*</h5>
</div>
</div>
</div> <!-- End Text Banner -->

<div class="container mt-5"> <!-- Start Most Popular Course -->
  <h1 class="text-center">Popular Course</h1>
  <div class="card-deck mt-4"> <!-- Start Most Popular Course 1st Card Deck -->
    <?php
      $sql = "SELECT * FROM course LIMIT 3";
      $result = $conn->query($sql);
      if($result->num_rows > 0){
        while($row = $result->fetch_assoc()){
          $course_id = $row['course_id'];
          echo '
            <a href="coursedetails.php?course_id='.$course_id.'" class="btn" style="text-align:
left; padding:0px; margin:0px;">
              <div class="card">
                
                <div class="card-body">
                  <h5 class="card-title">'.$row['course_name'].'</h5>
                  <p class="card-text">'.$row['course_desc'].'</p>
                </div>
                <div class="card-footer">
                  <p class="card-text d-inline">Price: <small><del>&#377
'.$row['course_original_price'].'</del></small> <span class="font-weight-bolder">&#377
'.$row['course_price'].'</span></p> <a class="btn btn-primary text-white font-weight-bolder
float-right" href="coursedetails.php?course_id='.$course_id.'">Enroll</a>
                </div>
              </div>
            </a> ';
        }
      }
    ?>
  </div> <!-- End Most Popular Course 1st Card Deck -->

```



```

<div class="card-deck mt-4"> <!-- Start Most Popular Course 2nd Card Deck -->
    <?php
        $sql = "SELECT * FROM course LIMIT 3,3";
        $result = $conn->query($sql);
        if($result->num_rows > 0){
            while($row = $result->fetch_assoc()){
                $course_id = $row['course_id'];
                echo '
                    <a href="coursedetails.php?course_id='.$course_id.'" class="btn" style="text-align:
left; padding:0px;">
                        <div class="card">
                            
                            <div class="card-body">
                                <h5 class="card-title">'.$row['course_name'].'</h5>
                                <p class="card-text">'.$row['course_desc'].'</p>
                            </div>
                            <div class="card-footer">
                                <p class="card-text d-inline">Price: <small><del>&#8377
'.$row['course_original_price'].'</del></small> <span class="font-weight-bolder">&#8377
'.$row['course_price'].'</span></p> <a class="btn btn-primary text-white font-weight-bolder
float-right" href="#">Enroll</a>
                            </div>
                        </div>
                    </a> ';
            }
        }
    ?>
</div> <!-- End Most Popular Course 2nd Card Deck -->
<div class="text-center m-2">
    <a class="btn btn-danger btn-sm" href="courses.php">View All Course</a>
</div>
</div> <!-- End Most Popular Course -->

<?php
// Contact Us
include('./contact.php');
?>

<!-- Start Students Testimonial -->
<div class="container-fluid mt-5" style="background-color: #4B7289" id="Feedback">
    <h1 class="text-center testyheading p-4"> Student's Feedback </h1>
    <div class="row">
        <div class="col-md-12">

```

```

<div id="testimonial-slider" class="owl-carousel">
<?php
    $sql = "SELECT s.stu_name, s.stu_occ, s.stu_img, f.f_content FROM student AS s JOIN
feedback AS f ON s.stu_id = f.stu_id";
    $result = $conn->query($sql);
    if($result->num_rows > 0) {
        while($row = $result->fetch_assoc()){
            $s_img = $row['stu_img'];
            $n_img = str_replace('..', '/', $s_img)
        ?>
        <div class="testimonial">
            <p class="description">
                <?php echo $row['f_content'];?>
            </p>
            <div class="pic">
                
            </div>
            <div class="testimonial-prof">
                <h4><?php echo $row['stu_name']; ?></h4>
                <small><?php echo $row['stu_occ']; ?></small>
            </div>
        </div>
        <?php } } ?>
    </div>
</div> <!-- End Students Testimonial -->

```

```

<div class="container-fluid bg-danger"> <!-- Start Social Follow -->
    <div class="row text-white text-center p-1">
        <div class="col-sm">
            <a class="text-white social-hover" href="#"><i class="fab fa-facebook-f"></i>
Facebook</a>
        </div>
        <div class="col-sm">
            <a class="text-white social-hover" href="#"><i class="fab fa-twitter"></i> Twitter</a>
        </div>
        <div class="col-sm">
            <a class="text-white social-hover" href="#"><i class="fab fa-whatsapp"></i>
WhatsApp</a>
        </div>
        <div class="col-sm">
            <a class="text-white social-hover" href="#"><i class="fab fa-instagram"></i>
Instagram</a>
        </div>
    </div>

```

```

        </div>
    </div>
</div> <!-- End Social Follow -->

<!-- Start About Section -->
<div class="container-fluid p-4" style="background-color:#E9ECEF">
    <div class="container" style="background-color:#E9ECEF">
        <div class="row text-center">
            <div class="col-sm">
                <h5>About Us</h5>
                <p>iSchool provides universal access to the world's best education, partnering with
top universities and organizations to offer courses online.</p>
            </div>
            <div class="col-sm">
                <h5>Category</h5>
                <a class="text-dark" href="#">Web Development</a><br />
                <a class="text-dark" href="#">Web Designing</a><br />
                <a class="text-dark" href="#">Android App Dev</a><br />
                <a class="text-dark" href="#">iOS Development</a><br />
                <a class="text-dark" href="#">Data Analysis</a><br />
            </div>
            <div class="col-sm">
                <h5>Contact Us</h5>
                <p>iSchool Pvt Ltd <br> Near Police Camp II <br> Bokaro, Jharkhand <br> Ph.
000000000 </p>
            </div>
        </div>
    </div>
</div> <!-- End About Section -->

<?php
// Footer Include from mainInclude
include('./mainInclude/footer.php');
?>

```

Courses.php

```

<?php
include('./dbConnection.php');
// Header Include from mainInclude
include('./mainInclude/header.php');
?>
<div class="container-fluid bg-dark"> <!-- Start Course Page Banner -->
    <div class="row">

```

```

        
    </div>
</div> <!-- End Course Page Banner -->

<div class="container mt-5"> <!-- Start All Course -->
    <h1 class="text-center">All Courses</h1>
    <div class="row mt-4"> <!-- Start All Course Row -->
        <?php
            $sql = "SELECT * FROM course";
            $result = $conn->query($sql);
            if($result->num_rows > 0){
                while($row = $result->fetch_assoc()){
                    $course_id = $row['course_id'];
                    echo '
                        <div class="col-sm-4 mb-4">
                            <a href="coursedetails.php?course_id='.$course_id.'" class="btn" style="text-
align: left; padding:0px;"><div class="card">
                                
                                <div class="card-body">
                                    <h5 class="card-title">'.$row['course_name'].'</h5>
                                    <p class="card-text">'.$row['course_desc'].'</p>
                                </div>
                                <div class="card-footer">
                                    <p class="card-text d-inline">Price: <small><del>&#8377
'.$row['course_original_price'].'</del></small> <span class="font-weight-bolder">&#8377
'.$row['course_price'].'</span></p> <a class="btn btn-primary text-white font-weight-bolder
float-right" href="coursedetails.php?course_id='.$course_id.'">Enroll</a>
                                </div>
                            </div> </a>
                        </div>
                    ';
                }
            }
        ?>
    </div><!-- End All Course Row -->
</div><!-- End All Course -->

<?php
    // Contact Us
    include('./contact.php');
?>

```

CHAPTER 6

TESTING

6.1 INTRODUCTION

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.

6.2 TYPES OF TESTING

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

6.2.1 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.

6.2.2 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.

6.2.3 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.

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

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

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

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

6.2.8 Stress Tests:-Stress tests are designed to confront programs with abnormal situations.

6.3 TEST CASES

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	Valid username Invalid Password	No Matched Username/ Password	No Matched Username/ Password	Pass
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	No Matched Username/ Password	Pass
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	Invalid username Invalid Password	No Matched Username/ Password	No Matched Username/ Password	Pass

Figure 6.3.1 Login

User/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 User 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 Staff 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 Staff 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

Table 6.3.2 User/Student Registration

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	Pass
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

Table 6.3.3 Add Course

CHAPTER 7

FUTURE SCOPE

- More than one tutor can be added
- Interaction between Student and Tutor can be improved by introducing Discussion forum
- Quiz Facility may enhance this application's market value
- Live Class can be added

CHAPTER 8

CONCLUSION

The E-Learning Maintenance Management System has been computed successfully and was also tested successfully by taking "Test Cases". It is user friendly, and has required options, which can be utilized by the user to perform the desired operations.

The Software is developed using HTML, CSS, JS as front end and PHP, MySql as back end in windows environment.

The goals that are achieved by the software are:

- Simplification of the operations
- Less processing time and getting required information
- User friendly
- Portable and flexible for further enhancement

BIBLIOGRAPHY

For the development of the E Learning website, a comprehensive set of the has resources and references has been utilized to ensure effective design, functionality, and user experience. John Smith's book, "Effective Mobile Website Development: Strategies and Best Practices" (2021), served as a foundational guide, providing insights into mobile website development methodologies. Brown's article, "User-Centric Design Principles for Mobile Applications " (2020), from the Journal of User Experience, contributed valuable principles for creating an interface focused on user needs and preferences.

Technical documentation played a crucial role, with Bootstrap's documentation (2022) offering a robust framework for responsive design and W3Schools' guide on "HTML Forms" (2022) aiding in the implementation of user input features. The JavaScript MDN Web Docs' resource on "Introduction to the DOM" (2022) facilitated a deeper understanding of document object model manipulation, enhancing the interactive aspects of the website. jQuery's documentation (2022) provided a concise library for simplifying complex JavaScript functions. The project leveraged external content delivery networks (CDNs) for efficiency, incorporating Bootstrap CDN (2022) and Font Awesome CDN (2022) to optimize the delivery of essential web assets. Additionally, GitHub's documentation on "Version Control with Git" (2022) was a cornerstone for collaborative development, ensuring a streamlined and organized version control process.

S

These resources collectively shaped the E Learning website, aligning it with best practices in website development, user-centric design, responsive web development, and efficient version control. The bibliography reflects a comprehensive website approach, integrating theoretical concepts with practical implementation to deliver a robust and user-friendly expense-sharing platform.

REFERENCES

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

Books: -

IGNOU Blocks of Systems Analysis and Design

IGNOU Blocks of Introduction to Software Engineering

The Complete Reference PHP

Head First SQL: Your Brain on SQL by Lynn Beighley

Web Source: -

www.google.co.in

www.wikipedia.org

www.php.net

www.stackoverflow.com

www.getbootstrap.com

www.fontawesome.com

