



01 INTRODUCTION

1.1 PROJECT DESCRIPTION

1.2 PROJECT PROFILE

PROJECT DESCRIPTION

The Purpose of E-Learning System is to automate the existing manual system by the help of computerized equipments and full-fledged computer software, fulfilling their equipments, so that their valuable data/information can be stored for a longer period with easy accessing and manipulation of the same.

E-Learning System which we have designed will lead to error free, secure, reliable and fast. The system is designed in such a way that it will reduce the errors while entering the data to system. It will also help the user by avoiding the wrong input to a system by displaying any errors and incorrect data found by the system.

No formal knowledge is needed to use the systems due to which it make a system user friendly and easy to use. E-learning systems help the user to focus on the learning by avoiding errors & keeping records of the user and the courses made by instructor ease the work. Every organization, whether big or small, has challenges to overcome and managed the information of student, course, quiz, payment, feedback given by the user.

Every e-learning system has different needs and according to those requirements they are designed our system has designed in such a way that it can be handle by a single user as a owner or even a organization can run the system for only themselves.

The aim of our e-learning system is to overcome the existing manual system by the help of computerized equipments and full-fledged computer software which help user and system to store data of the user and the course which contain lessons, quiz and attached file and also keep the track of enrolled user into a course & all such data can be manipulated in a effective manner by a authorized user.

These systems will ultimately allow the user to better manage the resources.

PROJECT PROFILE

PROJECT TITLE:

E-Learning Website.

PROJECT DEFINITION:

E-learning is training provided via a computer or other digital device, allowing technology to facilitate learning anytime, anywhere.

BACK-END LANGUAGE:

PHP (Codeigniter Framework) & MySql.

FRONT-END LANGUAGE:

Html, Css, JavaScript, Ajax, Bootstrap, Jquery.

DEVELOPMENT TOOLS:

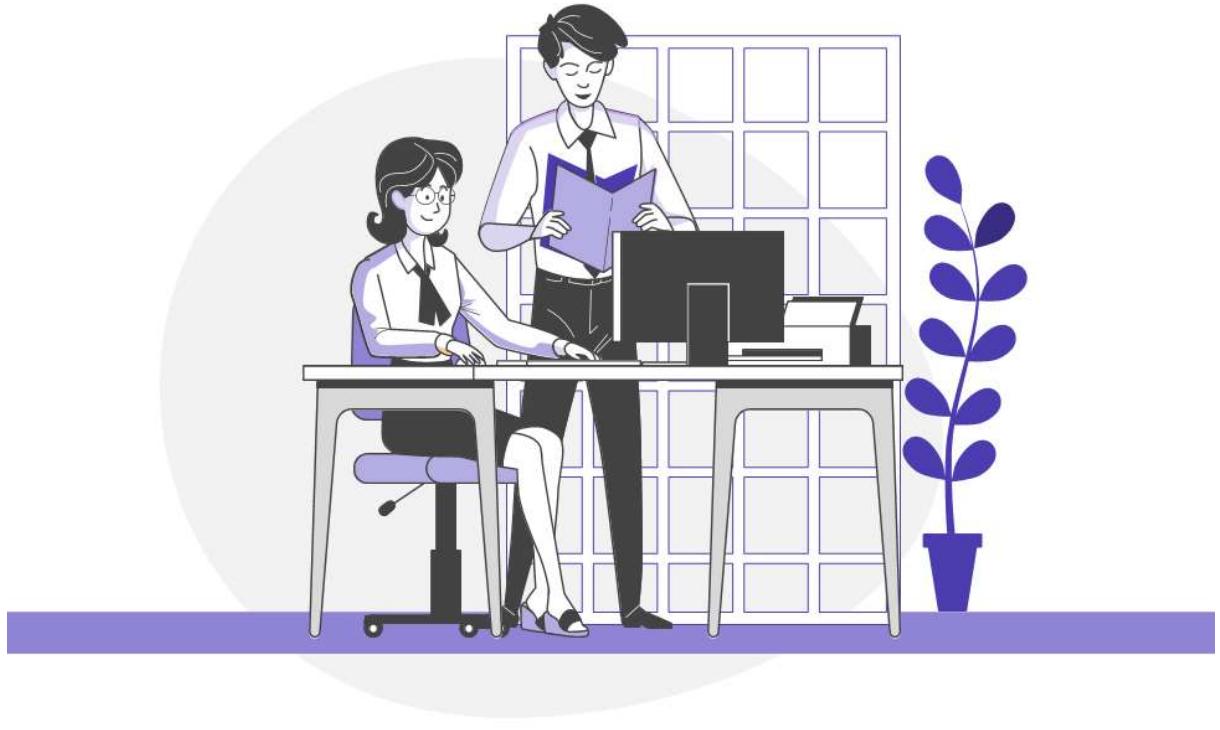
Adobe Dreamweaver, Visual Studio Code, Notepad++.

DEVELOPMENT PLATFORM:

Windows 10.

DOCUMENTATION TOOLS:

Microsoft Office 2007 & 2019, Photo Studio.



02

ENVIRONMENT DESCRIPTION

2.1 HARDWARE & SOFTWARE REQUIREMENTS

2.2 TECHNOLOGIES USED

HARDWARE & SOFTWARE REQUIREMENTS

Recommended Operating Systems

- ✓ Windows: 7 or newer
- ✓ MAC: OS X v10.7 or higher
- ✓ Linux: Ubuntu

Hardware Requirements

- ✓ Processor: Minimum 1 GHz; Recommended 2GHz or more
- ✓ Ethernet connection (LAN) OR a wireless adapter (Wi-Fi)
- ✓ Hard Drive: Minimum 32 GB; Recommended 64 GB or more
- ✓ Memory (RAM): Minimum 1 GB; Recommended 4 GB or above
- ✓ Sound card with speakers
- ✓ Keyboard & Mouse.

Recommended Software

- ✓ Firefox
- ✓ Chrome
- ✓ Microsoft Edge
- ✓ Internet Explorer
- ✓ Safari
- ✓ Opera

Other Important Software

- ✓ Microsoft Word
- ✓ Microsoft PowerPoint Presentation
- ✓ Acrobat Reader DC
- ✓ Antivirus Software

TECHNOLOGIES USED

1. PHP

The PHP Hypertext Preprocessor (PHP) is a programming language that allows web developers to create dynamic content that interacts with databases. PHP is basically used for developing web based software applications. This tutorial helps you to build your base with PHP.

Why to Learn PHP?

PHP started out as a small open source project that evolved as more and more people found out how useful it was. Rasmus Lerdorf unleashed the first version of PHP way back in 1994.

PHP is a MUST for students and working professionals to become a great Software Engineer especially when they are working in Web Development Domain. I will list down some of the key advantages of learning PHP:

- PHP is a recursive acronym for "PHP: Hypertext Preprocessor".
- PHP is a server side scripting language that is embedded in HTML. It is used to manage dynamic content, databases, session tracking, even build entire e-commerce sites.
- It is integrated with a number of popular databases, including MySQL, PostgreSQL, Oracle, Sybase, Informix, and Microsoft SQL Server.
- PHP is pleasingly zippy in its execution, especially when compiled as an Apache module on the Unix side. The MySQL server, once started, executes even very complex queries with huge result sets in record-setting time.
- PHP supports a large number of major protocols such as POP3, IMAP, and LDAP. PHP4 added support for Java and distributed object architectures (COM and CORBA), making n-tier development a possibility for the first time.
- PHP is forgiving: PHP language tries to be as forgiving as possible.
- PHP Syntax is C-Like.

Characteristics of PHP

- Simplicity
- Efficiency
- Security
- Flexibility
- Familiarity

Applications of PHP

As mentioned before, PHP is one of the most widely used language over the web. I'm going to list few of them here:

- PHP performs system functions, i.e. from files on a system it can create, open, read, write, and close them.
- PHP can handle forms, i.e. gather data from files, save data to a file, through email you can send data, return data to the user.
- You add, delete, modify elements within your database through PHP.
- Access cookies variables and set cookies.
- Using PHP, you can restrict users to access some pages of your website.
- It can encrypt data.

2. CODEIGNITER

CodeIgniter is an application development framework, which can be used to develop websites, using PHP. It is an Open Source framework. It has a very rich set of functionality, which will increase the speed of website development work.

If you know PHP well, then CodeIgniter will make your task easier. It has a very rich set of libraries and helpers. By using CodeIgniter, you will save a lot of time, if you are developing a website from scratch. Not only that, a website built in CodeIgniter is secure too, as it has the ability to prevent various attacks that take place through websites.

CodeIgniter Features

Some of the important features of CodeIgniter are listed below –

- Model-View-Controller Based System
- Extremely Light Weight
- Full Featured database classes with support for several platforms.
- Query Builder Database Support
- Form and Data Validation
- Security and XSS Filtering
- Session Management
- Email Sending Class. Supports Attachments, HTML/Text email, multiple protocols (sendmail, SMTP, and Mail) and more.
- Image Manipulation Library (cropping, resizing, rotating, etc.). Supports GD, ImageMagick, and NetPBM
- File Uploading Class
- FTP Class
- Localization

3. MYSQL DATABASE

MySQL is a fast, easy-to-use RDBMS being used for many small and big businesses. MySQL is developed, marketed and supported by MySQL AB, which is a Swedish company. MySQL is becoming so popular because of many good reasons

- MySQL is released under an open-source license. So you have nothing to pay to use it.
- MySQL is a very powerful program in its own right. It handles a large subset of the functionality of the most expensive and powerful database packages.
- MySQL uses a standard form of the well-known SQL data language.
- MySQL works on many operating systems and with many languages including PHP, PERL, C, C++, JAVA, etc.
- MySQL works very quickly and works well even with large data sets.
- MySQL is very friendly to PHP, the most appreciated language for web development.
- MySQL supports large databases, up to 50 million rows or more in a table. The default file size limit for a table is 4GB, but you can increase this (if your operating system can handle it) to a theoretical limit of 8 million terabytes (TB).
- MySQL is customizable. The open-source GPL license allows programmers to modify the MySQL software to fit their own specific environments.

4. HTML

HTML stands for Hyper Text Markup Language, which is the most widely used language on Web to develop web pages. HTML was created by Berners-Lee in late 1991 but "HTML 2.0" was the first standard HTML specification which was published in 1995. HTML 4.01 was a major version of HTML and it was published in late 1999. Though HTML 4.01 version is widely used but currently we are having HTML-5 version which is an extension to HTML 4.01, and this version was published in 2012.

Why to Learn HTML?

Originally, HTML was developed with the intent of defining the structure of documents like headings, paragraphs, lists, and so forth to facilitate the sharing of scientific information between researchers. Now, HTML is being widely used to format web pages with the help of different tags available in HTML language.

HTML is a MUST for students and working professionals to become a great Software Engineer specially when they are working in Web Development Domain. I will list down some of the key advantages of learning HTML:

- Create Web site - You can create a website or customize an existing web template if you know HTML well.
- Become a web designer - If you want to start a career as a professional web designer, HTML and CSS designing is a must skill.
- Understand web - If you want to optimize your website, to boost its speed and performance, it is good to know HTML to yield best results.
- Learn other languages - Once you understand the basic of HTML then other related technologies like JavaScript, php, or angular are become easier to understand.

Applications of HTML

As mentioned before, HTML is one of the most widely used language over the web. I'm going to list few of them here:

- Web pages development - HTML is used to create pages which are rendered over the web. Almost every page of web is having html tags in it to render its details in browser.
- Internet Navigation - HTML provides tags which are used to navigate from one page to another and is heavily used in internet navigation.
- Responsive UI - HTML pages now-a-days works well on all platform, mobile, tabs, desktop or laptops owing to responsive design strategy.
- Offline support HTML pages once loaded can be made available offline on the machine without any need of internet.
- Game development- HTML5 has native support for rich experience and is now useful in gaming developent arena as well.

5. CSS

CSS is used to control the style of a web document in a simple and easy way. CSS is the acronym for "Cascading Style Sheet". This tutorial covers both the versions CSS1, CSS2 and CSS3, and gives a complete understanding of CSS, starting from its basics to advanced concepts.

Why to Learn CSS?

Cascading Style Sheets, fondly referred to as CSS, is a simple design language intended to simplify the process of making web pages presentable. CSS is a MUST for students and working professionals to become a great Software Engineer especially when they are working in Web Development Domain. I will list down some of the key advantages of learning CSS:

- Create Stunning Web site - CSS handles the look and feel part of a web page. Using CSS, you can control the color of the text, the style of fonts, the spacing between paragraphs, how columns are sized and laid out, what background images or colors are used, layout designs, and variations in display for different devices and screen sizes as well as a variety of other effects.
- Become a web designer - If you want to start a carrier as a professional web designer, HTML and CSS designing is a must skill.
- Control web - CSS is easy to learn and understand but it provides powerful control over the presentation of an HTML document. Most commonly, CSS is combined with the markup languages HTML or XHTML.
- Learn other languages - Once you understand the basic of HTML and CSS then other related technologies like JavaScript, php, or angular are become easier to understand.

Applications of CSS

As mentioned before, CSS is one of the most widely used style language over the web. I'm going to list few of them here:

- CSS saves time - You can write CSS once and then reuse same sheet in multiple HTML pages. You can define a style for each HTML element and apply it to as many Web pages as you want.
- Pages load faster - If you are using CSS, you do not need to write HTML tag attributes every time. Just write one CSS rule of a tag and apply it to all the occurrences of that tag. So less code means faster download times.
- Easy maintenance - To make a global change, simply change the style, and all elements in all the web pages will be updated automatically.
- Superior styles to HTML - CSS has a much wider array of attributes than HTML, so you can give a far better look to your HTML page in comparison to HTML attributes.
- Multiple Device Compatibility - Style sheets allow content to be optimized for more than one type of device. By using the same HTML document, different versions of a website can be presented for handheld devices such as PDAs and cell phones or for printing.
- Global web standards - Now HTML attributes are being deprecated and it is being recommended to use CSS. So its a good idea to start using CSS in all the HTML pages to make them compatible to future browsers.

6. BOOTSTRAP

Why to Learn Bootstrap?

- Mobile first approach – Bootstrap 3, framework consists of Mobile first styles throughout the entire library instead them of in separate files.
- Browser Support – It is supported by all popular browsers.
- Easy to get started – With just the knowledge of HTML and CSS anyone can get started with Bootstrap. Also the Bootstrap official site has a good documentation.
- Responsive design – Bootstrap's responsive CSS adjusts to Desktops, Tablets and Mobiles. More about the responsive design is in the chapter Bootstrap Responsive Design.
- Provides a clean and uniform solution for building an interface for developers.
- It contains beautiful and functional built-in components which are easy to customize.
- It also provides web based customization.
- And best of all it is an open source.

Applications of Bootstrap

- Scaffolding – Bootstrap provides a basic structure with Grid System, link styles, and background. This is covered in detail in the section Bootstrap Basic Structure
- CSS – Bootstrap comes with the feature of global CSS settings, fundamental HTML elements styled and enhanced with extensible classes, and an advanced grid system. This is covered in detail in the section Bootstrap with CSS.

7. JAVASCRIPT

What is JavaScript?

JavaScript is a dynamic computer programming language. It is lightweight and most commonly used as a part of web pages, whose implementations allow client-side script to interact with the user and make dynamic pages. It is an interpreted programming language with object-oriented capabilities.

JavaScript was first known as LiveScript, but Netscape changed its name to JavaScript, possibly because of the excitement being generated by Java. JavaScript made its first appearance in Netscape 2.0 in 1995 with the name LiveScript. The general-purpose core of the language has been embedded in Netscape, Internet Explorer, and other web browsers.

The ECMA-262 Specification defined a standard version of the core JavaScript language.

- JavaScript is a lightweight, interpreted programming language.
- Designed for creating network-centric applications.
- Complementary to and integrated with Java.
- Complementary to and integrated with HTML.
- Open and cross-platform

Client-Side JavaScript

Client-side JavaScript is the most common form of the language. The script should be included in or referenced by an HTML document for the code to be interpreted by the browser. It means that a web page need not be a static HTML, but can include programs that interact with the user, control the browser, and dynamically create HTML content. The JavaScript client-side mechanism provides many advantages over traditional CGI server-side scripts. For example, you might use JavaScript to check if the user has entered a valid e-mail address in a form field.

The JavaScript code is executed when the user submits the form, and only if all the entries are valid, they would be submitted to the Web Server. JavaScript can be used to trap user-initiated events such as button clicks, link navigation, and other actions that the user initiates explicitly or implicitly.

Advantages of JavaScript

The merits of using JavaScript are –

- Less server interaction – You can validate user input before sending the page off to the server. This saves server traffic, which means less load on your server.
- Immediate feedback to the visitors – They don't have to wait for a page reload to see if they have forgotten to enter something.
- Increased interactivity – You can create interfaces that react when the user hovers over them with a mouse or activates them via the keyboard.
- Richer interfaces – You can use JavaScript to include such items as drag-and-drop components and sliders to give a Rich Interface to your site visitors.

Limitations of JavaScript

We cannot treat JavaScript as a full-fledged programming language. It lacks the following important features –

- Client-side JavaScript does not allow the reading or writing of files. This has been kept for security reason.
- JavaScript cannot be used for networking applications because there is no such support available.
- JavaScript doesn't have any multi-threading or multiprocessor capabilities.

Once again, JavaScript is a lightweight, interpreted programming language that allows you to build interactivity into otherwise static HTML pages.

8. JQUERY

What is jQuery?

jQuery is a fast and concise JavaScript Library created by John Resig in 2006 with a nice motto: Write less, do more. jQuery simplifies HTML document traversing, event handling, animating, and Ajax interactions for rapid web development. jQuery is a JavaScript toolkit designed to simplify various tasks by writing less code. Here is the list of important core features supported by jQuery –

- DOM manipulation – The jQuery made it easy to select DOM elements, negotiate them and modifying their content by using cross-browser open source selector engine called Sizzle.
- Event handling – The jQuery offers an elegant way to capture a wide variety of events, such as a user clicking on a link, without the need to clutter the HTML code itself with event handlers.
- AJAX Support – The jQuery helps you a lot to develop a responsive and featurerich site using AJAX technology.
- Animations – The jQuery comes with plenty of built-in animation effects which you can use in your websites.
- Lightweight – The jQuery is very lightweight library - about 19KB in size (Minified and gzipped).
- Cross Browser Support – The jQuery has cross-browser support, and works well in IE 6.0+, FF 2.0+, Safari 3.0+, Chrome and Opera 9.0+
- Latest Technology – The jQuery supports CSS3 selectors and basic XPath syntax.

9. AJAX

AJAX is a web development technique for creating interactive web applications. If you know JavaScript, HTML, CSS, and XML, then you need to spend just one hour to start with AJAX.

Why to Learn Ajax?

AJAX stands for **A**synchronous **J**ava**S**cript and **X**ML. AJAX is a new technique for creating better, faster, and more interactive web applications with the help of XML, HTML, CSS, and Java Script.

- Ajax uses XHTML for content, CSS for presentation, along with Document Object Model and JavaScript for dynamic content display.
- Conventional web applications transmit information to and from the sever using synchronous requests. It means you fill out a form, hit submit, and get directed to a new page with new information from the server.
- With AJAX, when you hit submit, JavaScript will make a request to the server, interpret the results, and update the current screen. In the purest sense, the user would never know that anything was even transmitted to the server.
- XML is commonly used as the format for receiving server data, although any format, including plain text, can be used.
- AJAX is a web browser technology independent of web server software.
- A user can continue to use the application while the client program requests information from the server in the background.
- Intuitive and natural user interaction. Clicking is not required, mouse movement is a sufficient event trigger.
- Data-driven as opposed to page-driven.



03 SYSTEM ANALYSIS & PLANNING

3.1 EXISTING SYSTEM AND ITS DRAWBACKS

3.2 FEASIBILITY STUDY

3.3 REQUIREMENT GATHERING AND ANALYSIS

EXISTING SYSTEM & ITS DRAWBACKS

1. Lacks Student Focused Learning

A drawback of traditional training is that it inherently places the most value on standards, curriculum and passing tests as opposed to student-focused learning. Traditional learning is based on repetition and memorization of facts that students care less about and retain at lower rates after testing.

2. Lacks Emphasis on Critical Thinking

Traditional classroom training doesn't encourage critical thinking skills, the ability to actively apply information gained through experience and reasoning. Instead, traditional training emphasizes the role of teachers as knowledge dispensers and students as repositories. This style of learning doesn't allow student's deeper levels of understanding required for complex concepts and lifelong learning.

3. Lacks Process Oriented Learning

Traditional training emphasizes passing tests, whether or not students understand the material. The learning process is thus devalued, and students are not encouraged to understand the methods, techniques and skills required to find answers. Constructivist learning holds the process as important as the results because it stimulates skills important long after schooling.

4. Lacks Emphasis on Larger Concepts or Structures

Rather than focusing on larger concepts and considering student context in the learning as constructivist training does, traditional training focuses on basic skills and gradually builds to a whole. While this simplifies learning, it provides little context, which can disconnect learners.

5. Lacks Interactivity

Traditional training emphasizes individual student work and projects and is poor preparation for a student's future endeavors. Under this training model, students receive few opportunities to practice group dynamics and teamwork.

FEASIBILITY STUDY

Feasibility Study is the test of the system proposal according to its work ability, impact on the current system, ability to meet the needs of the current users and effective use of the resources. Its main objective is not to solve the problem, but to acquire its scope. It focuses on following:

- ✓ Meet user requirements
- ✓ Best utilization of available resources
- ✓ Develop a cost effective system
- ✓ Develop a technically feasible system

There are three aspects in the feasibility study:

- Technical Feasibility
- Economical Feasibility
- Operational Feasibility

1. TECHNICAL FEASIBILITY

The technical issues usually raised during the feasibility stage of the investigation include following: The necessary technology must be existed to do what is suggested. The proposed equipment must have the technical capacity to hold the data required to use the new system. There must be technical guarantees of accuracy, reliability ease of access and data security. The development of the system is technically feasible as the various technological needs for the development and deployment are fulfilled.

2. ECONOMICAL FEASIBILITY

Issues to be studied are, whether the new system is cost effective or not? The benefits in the form of reduced cost? This Web based E-Learning is economically feasible. As the hardware was installed from quite beginning, the cost on project of hardware is low. Similarly, the software loaded for this project was used for many other applications.

The software cost was under budget. As student trainees were developing the application, there were no major personnel costs associated. Moreover, the technical requirements were already available so there was no further expenditure for buying software packages. Here, this system is beneficial for the organization as work cost will be decreased by developing the project.

3. OPERATIONAL FEASIBILITY

Issues to be studied are, is there sufficient support for management and users? Is the current method acceptable to users? Will the proposed system cause any harm? This Web based E-learning is operationally feasible. The user just needed to have the basic knowledge of computers.

REQUIREMENT GATHERING & ANALYSIS

1. PROJECT DEVELOPMENT APPROACH

We have used the prototype model to build our project (E-learning Website) which is one of the software development life cycles. Prototype methodology is defined as a Software Development model in which a prototype is built, tested, and then reworked when needed until an acceptable prototype is achieved. It also creates a base to produce the final system. Software prototyping model works best in scenarios where the project's requirements are not known. It is an iterative, trial, and error method which take place between the developer and the client.

Prototyping Model Phases

Step 1: Requirements gathering and analysis

A prototyping model starts with requirement analysis. In this phase, the requirements of the system are defined in detail. During the process, the users of the system are interviewed to know what their expectation from the system is.

Step 2: Quick design

The second phase is a preliminary design or a quick design. In this stage, a simple design of the system is created. However, it is not a complete design. It gives a brief idea of the system to the user. The quick design helps in developing the prototype.

Step 3: Build a Prototype

In this phase, an actual prototype is designed based on the information gathered from quick design. It is a small working model of the required system.

Step 4: Initial user evaluation

In this stage, the proposed system is presented to the client for an initial evaluation. It helps to find out the strength and weakness of the working model. Comment and suggestion are collected from the customer and provided to the developer.

Step 5: Refining prototype

If the user is not happy with the current prototype, you need to refine the prototype according to the user's feedback and suggestions.

This phase will not over until all the requirements specified by the user are met. Once the user is satisfied with the developed prototype, a final system is developed based on the approved final prototype.

Step 6: Implement Product and Maintain

Once the final system is developed based on the final prototype, it is thoroughly tested and deployed to production. The system undergoes routine maintenance for minimizing downtime and prevents large-scale failures.

Advantages of the Prototyping Model

- Users are actively involved in development. Therefore, errors can be detected in the initial stage of the software development process.
- Missing functionality can be identified, which helps to reduce the risk of failure as Prototyping is also considered as a risk reduction activity.
- Helps team member to communicate effectively
- Customer satisfaction exists because the customer can feel the product at a very early stage.
- There will be hardly any chance of software rejection.
- Quicker user feedback helps you to achieve better software development solutions.
- Allows the client to compare if the software code matches the software specification.
- It helps you to find out the missing functionality in the system.
- It also identifies the complex or difficult functions.
- Encourages innovation and flexible designing.
- It is a straightforward model, so it is easy to understand.
- No need for specialized experts to build the model
- The prototype serves as a basis for deriving a system specification.
- The prototype helps to gain a better understanding of the customer's needs.

Disadvantages of the Prototyping Model

- Prototyping is a slow and time taking process.
- The cost of developing a prototype is a total waste as the prototype is ultimately thrown away.
- Prototyping may encourage excessive change requests.
- Sometimes customers may not be willing to participate in the iteration cycle for the longer time duration.
- There may be far too many variations in software requirements when each time the prototype is evaluated by the customer.
- Poor documentation because the requirements of the customers are changing.
- It is very difficult for software developers to accommodate all the changes demanded by the clients.
- After seeing an early prototype model, the customers may think that the actual product will be delivered to him soon.
- The client may lose interest in the final product when he or she is not happy with the initial prototype.

2. REQUIREMENT ANALYSIS

A requirement analysis 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.

E-Learning has evolved over the last two decades from being a supplementary tool to becoming an essential companion to class teaching. This has become known as blended learning. Much of the initial focus of research has been on the software side of e-learning. However, recently the hardware and the technology of delivering have been getting more attention in the form of –Learning. Researchers seem to agree that the use of tablets has potential that is under-utilized.

E-learning should be comprehensive, reliable & user-friendly. It has designed from the ground up to meet the exact requirements of students and faculties. It brings students to a friendly environment of learning 24/7 anytime & anywhere. Learners have a choice to enroll in free courses and start learning or they can also get enrolled in paid courses according to their needs of learning and also for quality courses by expert's instructor. The solo aim of e-learning is to open the gates for learning for everyone and to promote education for better future of learners and nationality. Students also get 24/7 support from the instructor and also can communicate to their fellow students who are also enrolled in same courses. Students can also take a quiz test of a course to check their performance and to improve their skills.

1. Non – Functional Requirements

- Gamification.
- Security.
- Reliability.
- Scalability.
- Responsiveness.
- 24/7 Availability.
- Real Time Support.

2. Functional Requirements

- User and Course Management.
- Discreet Learning.
- Creating Course.
- Adding Lessons & Question to Courses.
- Attaching the Pdf /doc file to Courses.
- Asynchronous Communication.
- Add/Update/Delete Courses by Admin.
- Add/Update/Delete Users by Admin.
- Generating Instructor Revenue.
- Manage Enrolled Students by Admin.
- Modifying Content of Website through Front-End by Admin.
- Review Courses.
- Feedback to System.
- Chat Rooms for Instructor & Student.
- Quiz for Students.
- Generating Various Kind of Reports based On Admin Need & Queries.

3. RISK MANAGEMENT

3.1 Risk Analysis

The top five risks are identified in decreasing order of their importance

- Insufficient Human Resources.
- Unrealistic Schedule.
- Unrealistic Budget.
- Unrealistic Expectations.
- Incomplete Requirements.

The Sources of risk to e-learning projects identified by this study are listed below in rough order of their importance. This has been determined in two ways:

- ✓ Making a worst case assessment of the risk in terms of 8 categories.
- ✓ Using the particular experiences of current projects.

3.2 Risk Planning

Implementation of the risk planning process lets the manager to solve the challenge by planning for potential risks and developing solutions that reduce the likelihood of risk occurrence and mitigate the negative impact of the risks.

Step #1: Identify Potential Loss Exposures.

Because every activity within your project may cause losses you need to control and monitor potential exposures to loss. But you can't make effective decisions without having the risks identified.

The first step requires you to identify potential risks that may harm your project. In order to take the step, you'll need to make a list of project goals and objectives and then associate every goal and objective with potential threats and uncertainties that may cause a loss. For example, your project's primary goal is to develop a software product. Potential risks surrounding this goal are poor usability, product malfunction, improper functionality, user dissatisfaction, etc.

Step #2: Evaluate the Risks.

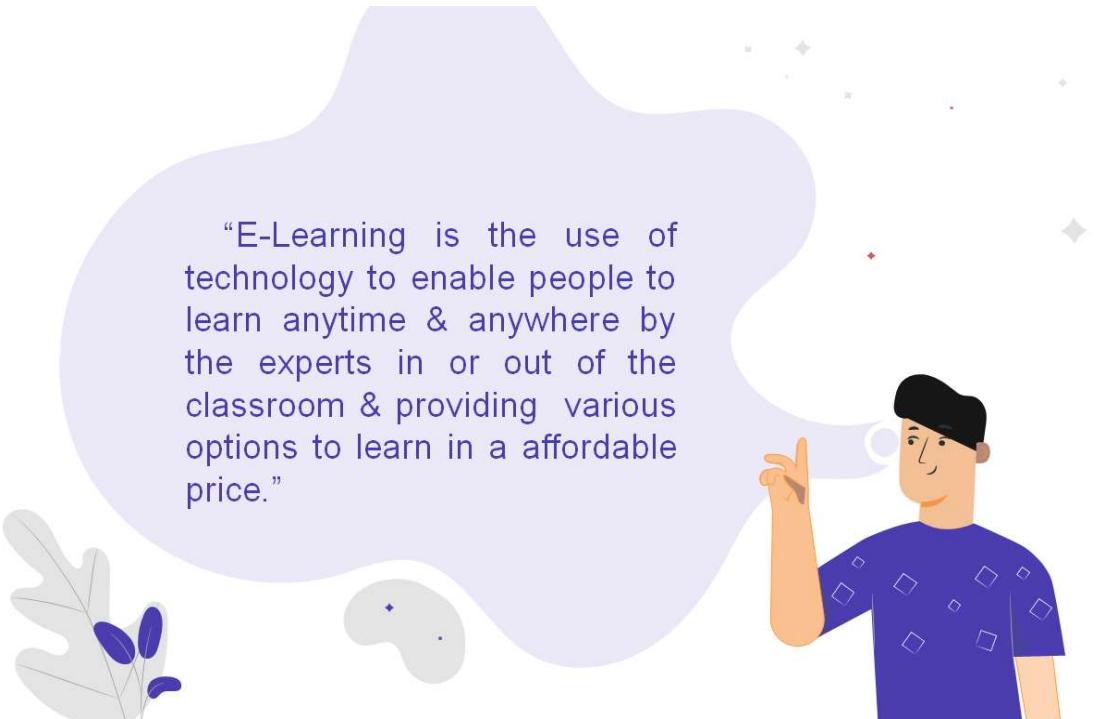
When you list all of your goals and associated risks your next step is to evaluate those risks. As a process the evaluation includes two components:

- Assess Frequency (the probability of each risk to become real).
- Estimate Severity (the possible effect and cost of risk occurrence to the performing organization).

In order to evaluate risks you need to determine both components. For example, your software product is developed and users try its functionality. For such a case you need to assess the frequency that users will fail with using the software because of malfunction; also you need to estimate the severity of the failure risk.

Step #3: Examine Applicable Options.

When the risks are identified, their frequency is assessed and severity is estimated, your next step is to examine all the appropriate options for managing those risks. This step requires you to select a management technique. There are five common techniques, such as Avoidance, Prevention, Mitigation, Retention and Transfer.



“E-Learning is the use of technology to enable people to learn anytime & anywhere by the experts in or out of the classroom & providing various options to learn in an affordable price.”

04

PROPOSED SYSTEM

4.1 SCOPE

4.2 PROJECT MODULE

4.3 MODULE VISE OBJECTIVE

4.4 EXPECTED ADVANTAGES

SCOPE OF E-LEARNING

1. Online Learning Accommodates Everyone's Needs:-

Online educational courses can be taken up by office goers and housewives too, at the time that suits them depending on their availability and comfort.

2. Lectures Can Be Taken Any Number of Times:-

Unlike classroom teaching, with online learning you can access the content an unlimited number of times.

3. Offers Access to Updated Content:-

A prime benefit of learning online is that it makes sure that you are in synchronization with modern learners. This enables the learner to access updated content whenever they want it.

4. Quick Delivery of Lessons:-

As compared to traditional classroom teaching method, this mode has relatively quick delivery cycles. For example, they can skip certain areas they do not want to learn.

5. Scalability:-

E-Learning helps in creating and communicating new training, policies, concepts, and ideas. Whether it is for formal education or entertainment, eLearning is very quick way of learning.

7. Reduced Costs:-

A lot of training time is reduced with respect to trainers, travel, course materials, and accommodation.

8. Effectiveness:-

E-Learning has a positive influence on an organization's profitability. It makes it easy to grasp the content and digest it.

PROJECT MODULES

E-Learning system contains various modules having different objectives and operations to perform and make system run efficiently.

We have following modules in our system:-

- User Module.
- Course Module.
- Question Module.
- Message Module.
- Setting Module.
- Enroll Module.
- Payment Module.
- Session Module.
- Student Module.
- Instructor Module.
- Role Module.
- Notification Module.
- Report Module.
- Lesson Module.

MODULE VISE OBJECTIVES

1. **User Module:** Objective of this module is to manage the users of system. Admin can Add/Delete/Modify the user details.
2. **Course Module:** Objective of this module is to manage the courses added by the instructor or admin. It is the responsibility of admin to make a course active or inactive and also to ensure that correct data is entered into the system. Instructor & Admin has permissions to add/delete/modify the course details.
3. **Question Module:** Objective of this module is to handle the questions added in courses by the instructor. Instructors can add/delete/update the questions added in lesson/courses. Students can take a quiz test prepared by instructors.
4. **Message Module:** Objective of this module is to make Communication Bridge between the instructor, admin and students. It is an asynchronous communication between users. Users can communicate with instructor and others students to solve their doubts and chance to improve skills.
5. **Setting Module:** Objective of this module is to apply changes in system and alter some content of website for reliability and responsiveness of system from the frontend by admin.
6. **Enroll Module:** Objective of this module is to manage the students who are enrolled in any course. Admin can enroll any students into a course and also can generate reports as their requirements.
7. **Payment Module:** Objective of this module is to manage all the transaction made by the user on behalf of the courses in which they want to enroll and also to manage the payroll of instructor.

8. **Session Module:** Objective of this module is to manage the session and other operations based on the session for example handling session during the login and logout process of the system.
9. **Role Module:** Objective of this module is to manage the roles of the user and based on that role every user has their responsibilities.
10. **Notification Module:** Objective of this module is to handle all the notifications display on screen with some information which is useful for user to interact with system and enter the errorless data.
11. **Report Module:** Objectives of this module is to generate reports based on user queries.

EXPECTED ADVANTAGES

Scalable: E-learning enables us to quickly create and communicate new policies, training, ideas, and concepts. Be it for entertainment or formal education, E-learning is nimble!

Capacity and Consistency: Using e-learning allows educators to achieve a great degree of coverage for their target audience, and it ensures that the message is communicated in a consistent fashion. This results in all learners receiving the same training.

High Learning Retention: Blended learning approaches result in a higher knowledge retention rate. It also helps that coursework can be refreshed and updated whenever needed.

Time and Money Savings: This one is pretty well known, and a staple of any well-done e-learning program. E-learning reduces time away from the workplace, eliminates the need for travel, and removes the need for classroom-based training.

Flexible: Using e-learning, you can give employees and students the freedom to learn at their own convenience, and at a pace that is right for them. Staff can be trained in remote locations and in a consistent fashion as anyone receiving on-site training.



05

DETAIL PLANNING

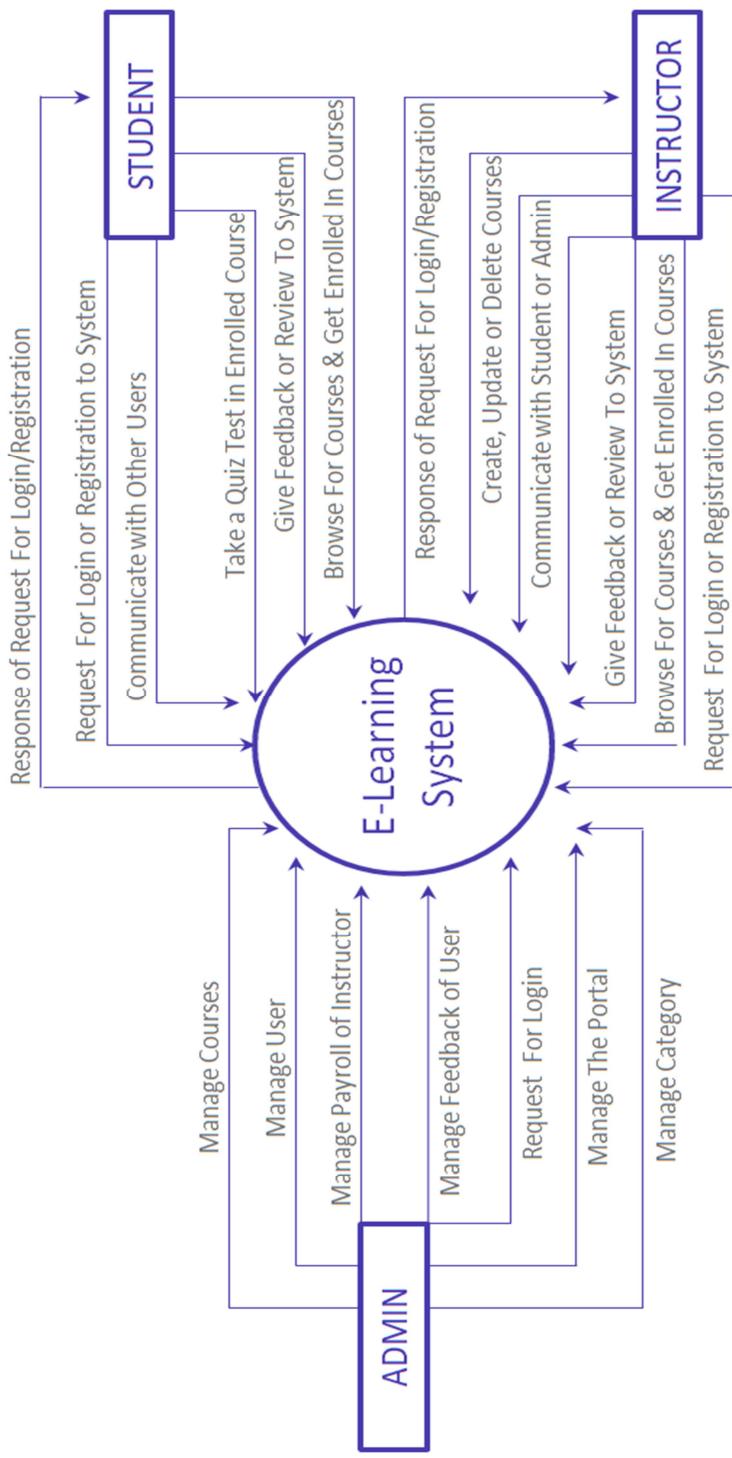
5.1 DATA FLOW DIAGRAM

5.2 PROCESS SPECIFICATION

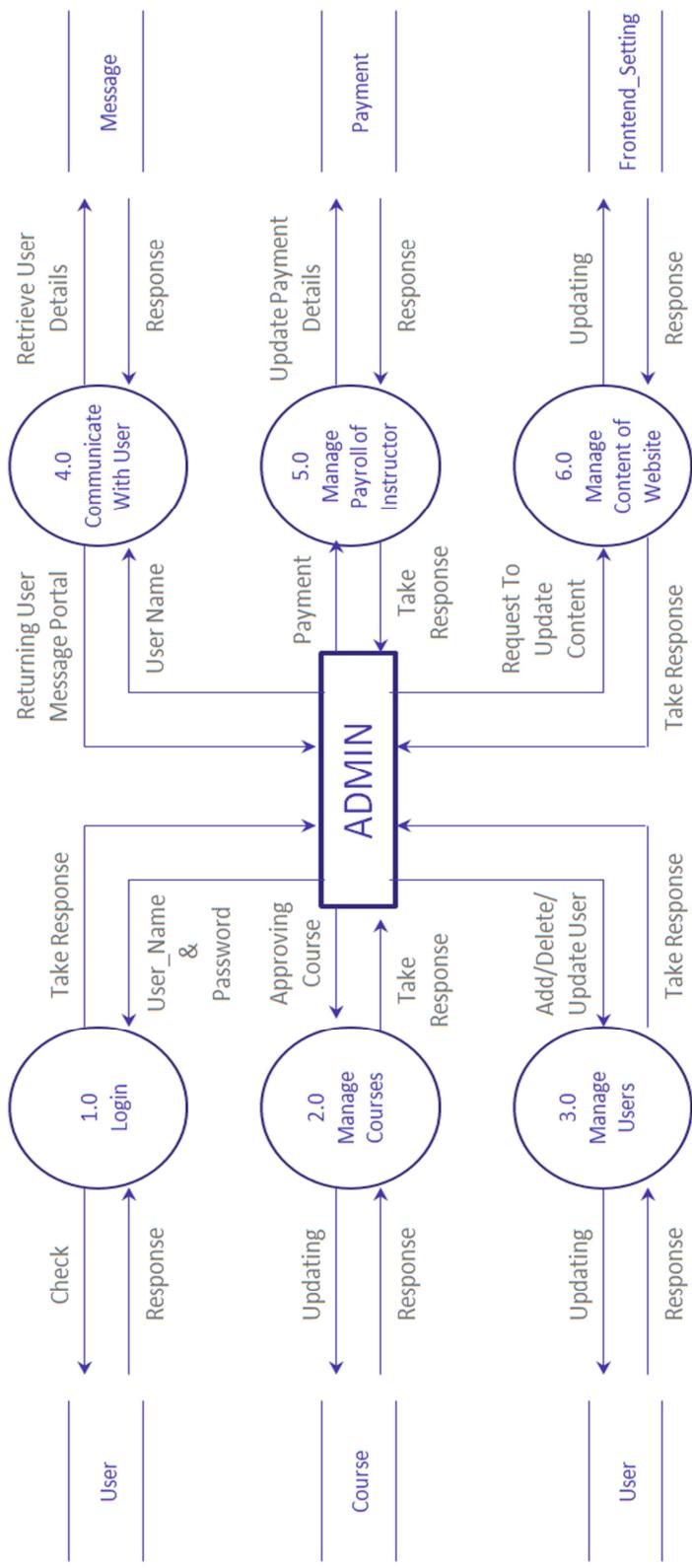
5.3 DATA DICTIONARY

5.4 ENTITY RELATIONSHIP DIAGRAM

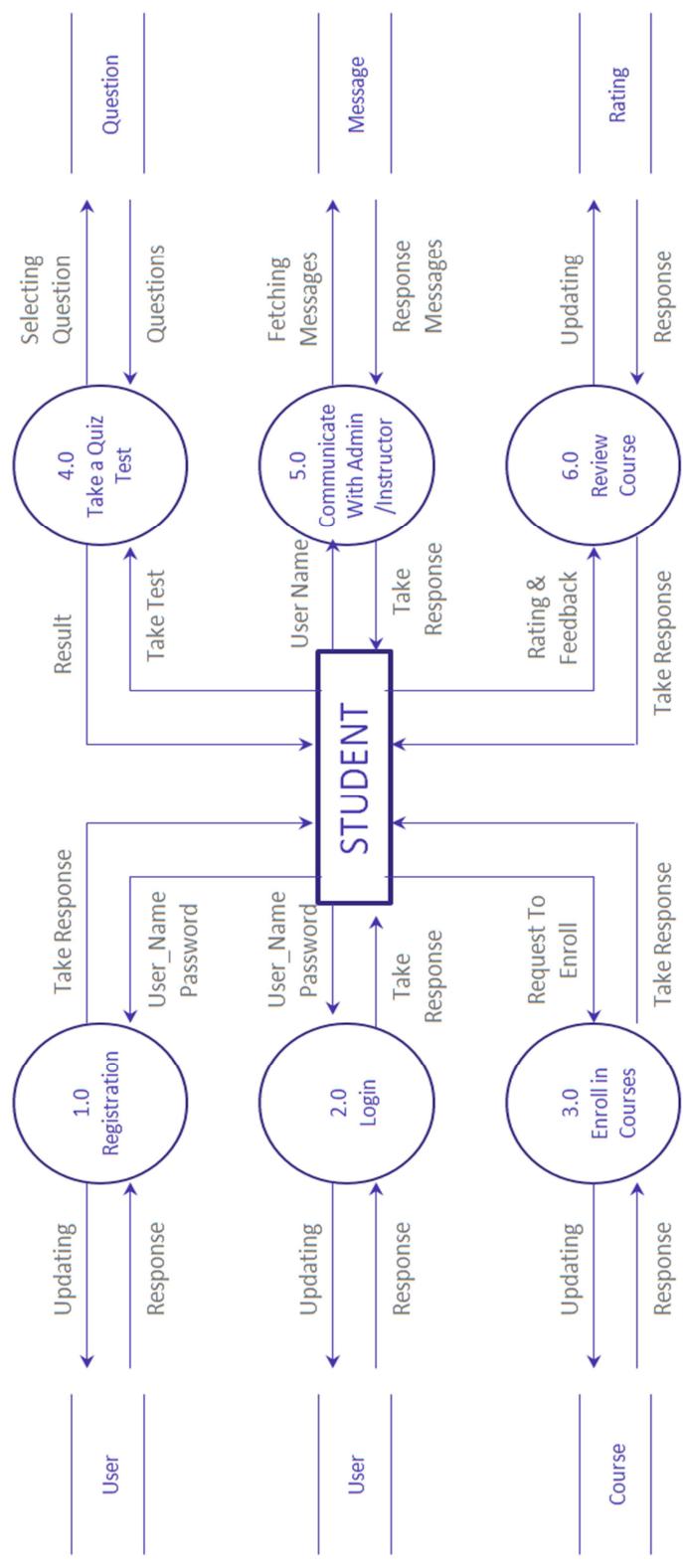
0th Level DFD



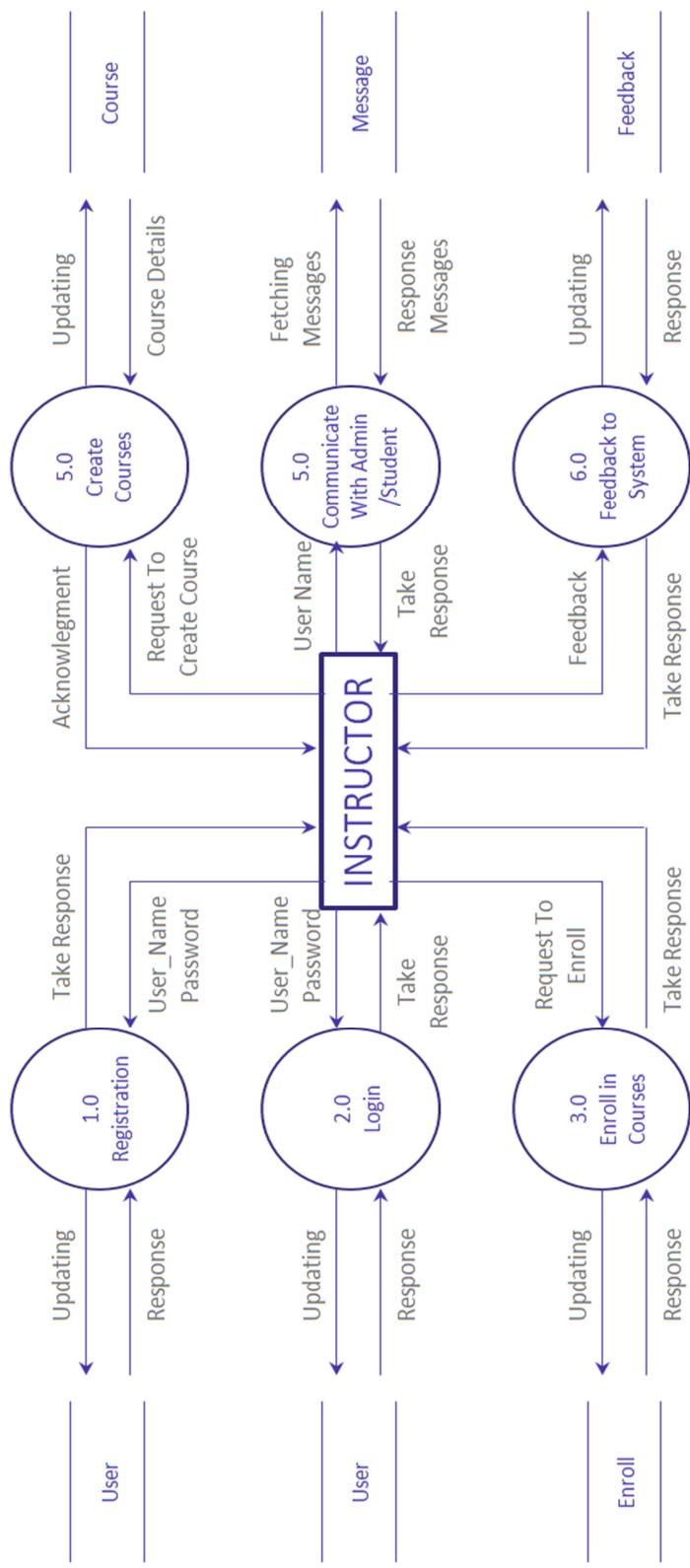
1ST Level DFD (ADMIN SIDE DFD)



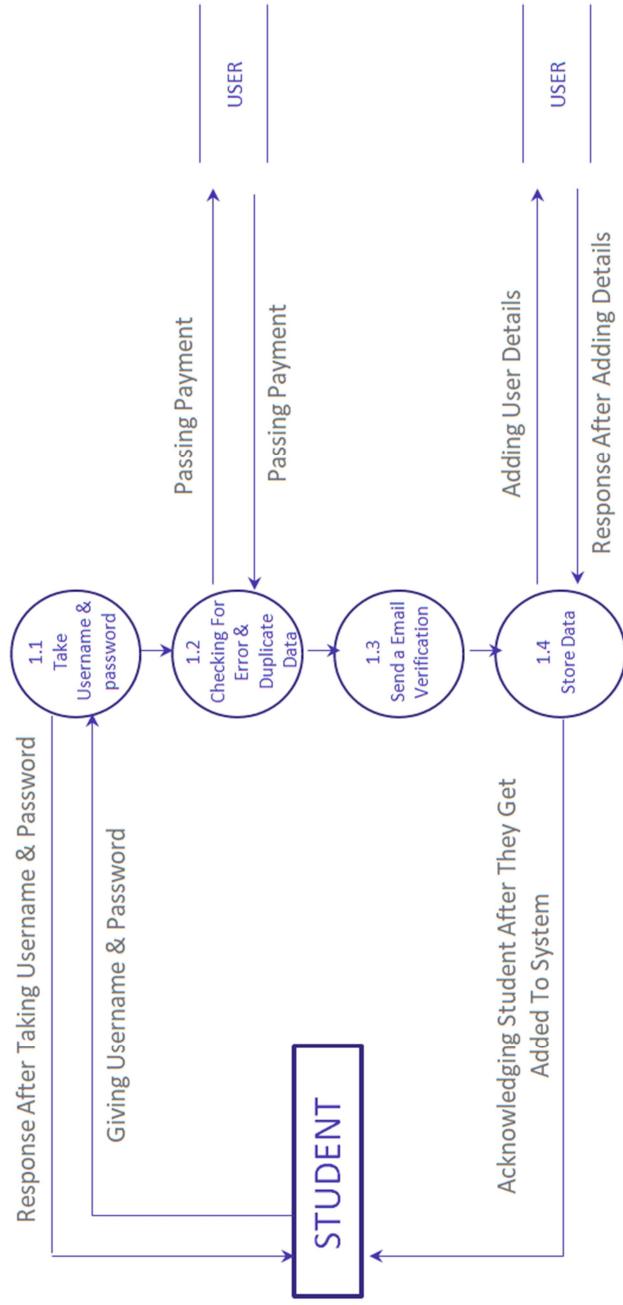
1ST Level DFD (STUDENT SIDE DFD)



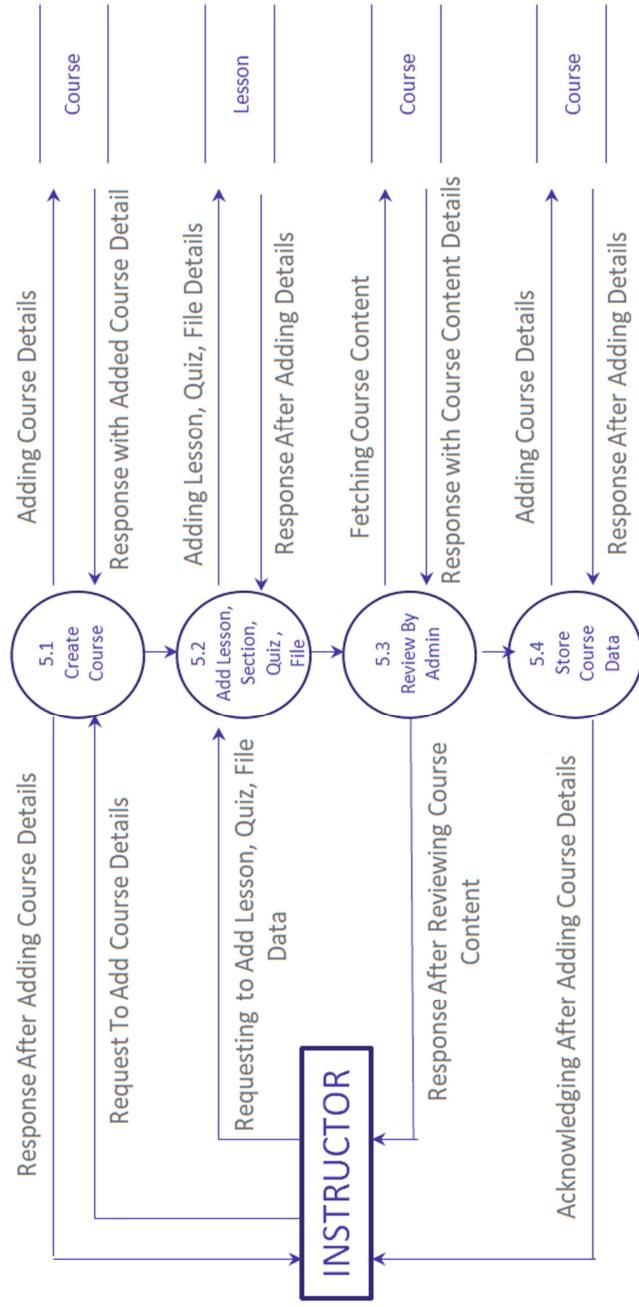
1ST Level DFD (INSTRUCTOR SIDE DFD)



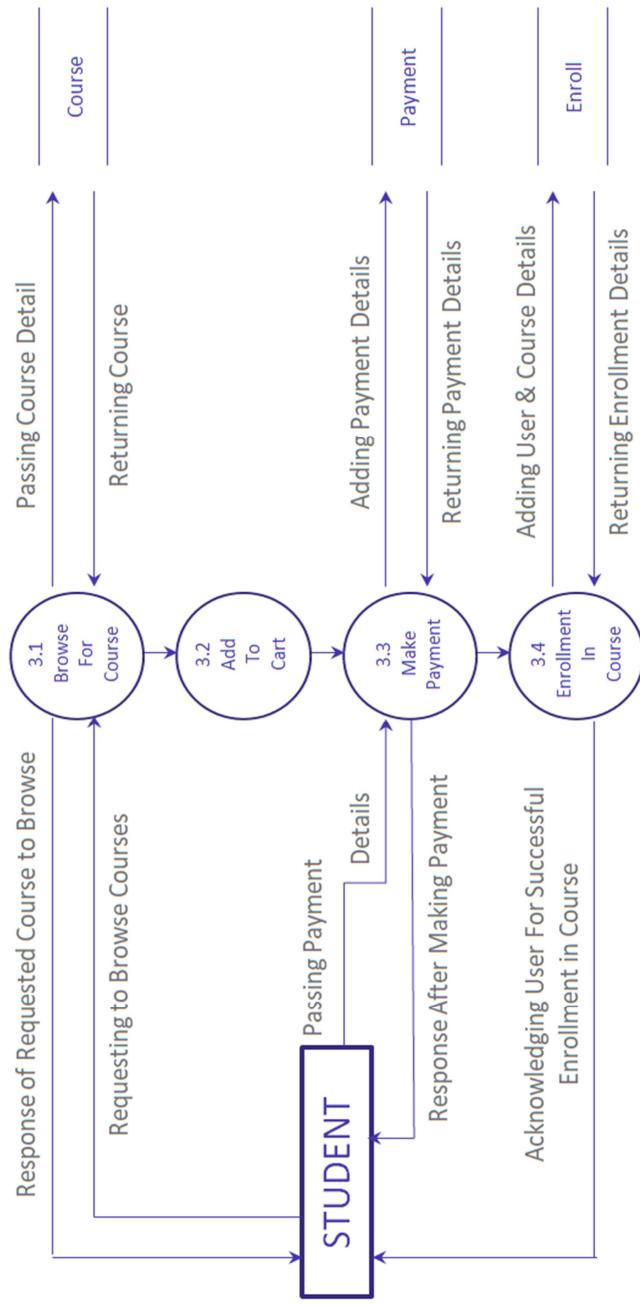
2nd Level DFD (REGISTRATION PROCESS DFD)



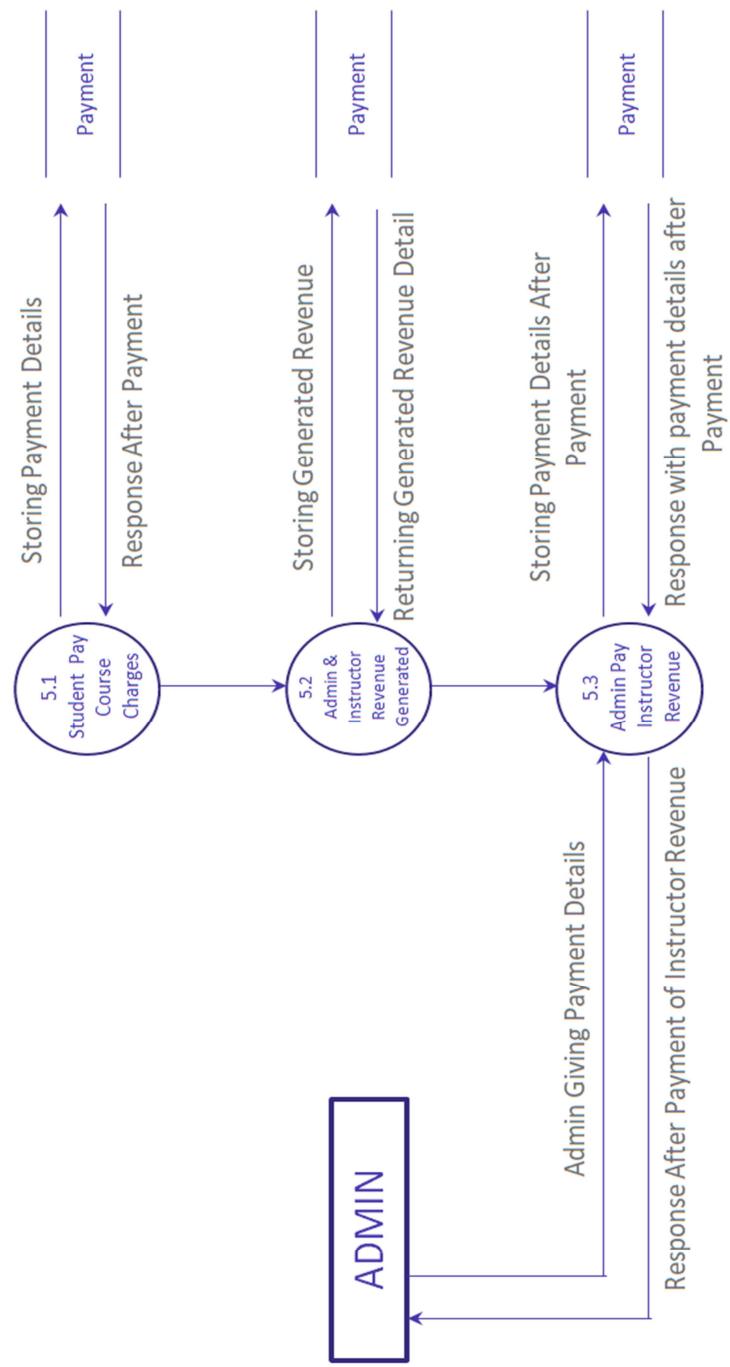
2nd Level DFD (CREATE COURSE PROCESS DFD)



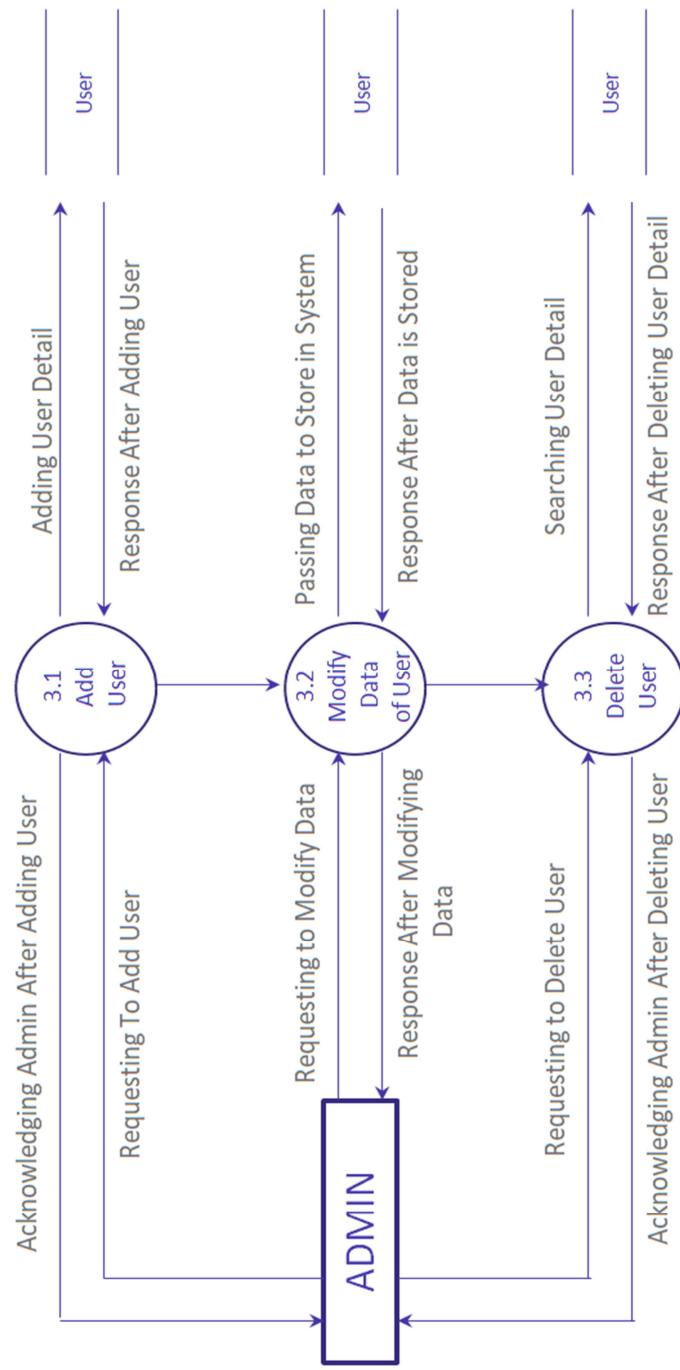
2nd Level DFD (ENROLLMENT IN COURSE PROCESS DFD)



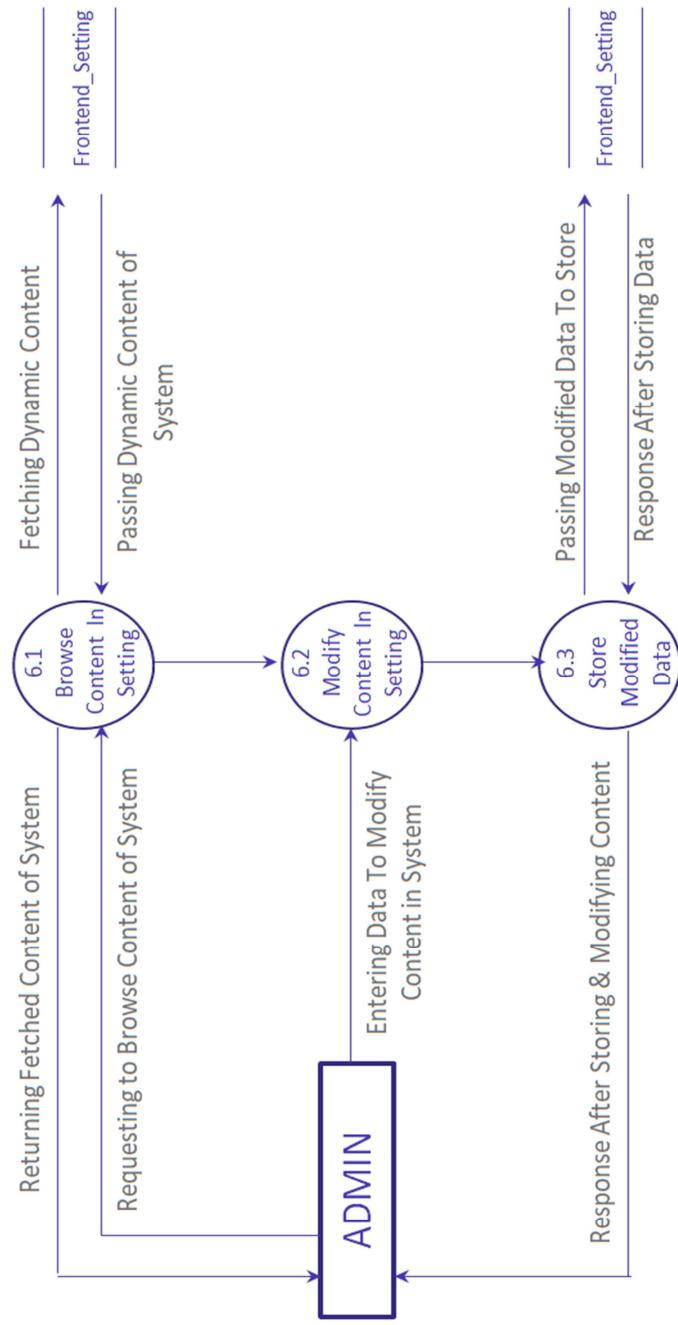
2nd Level DFD (MANAGE PAYROLL OF INSTRUCTOR PROCESS DFD)



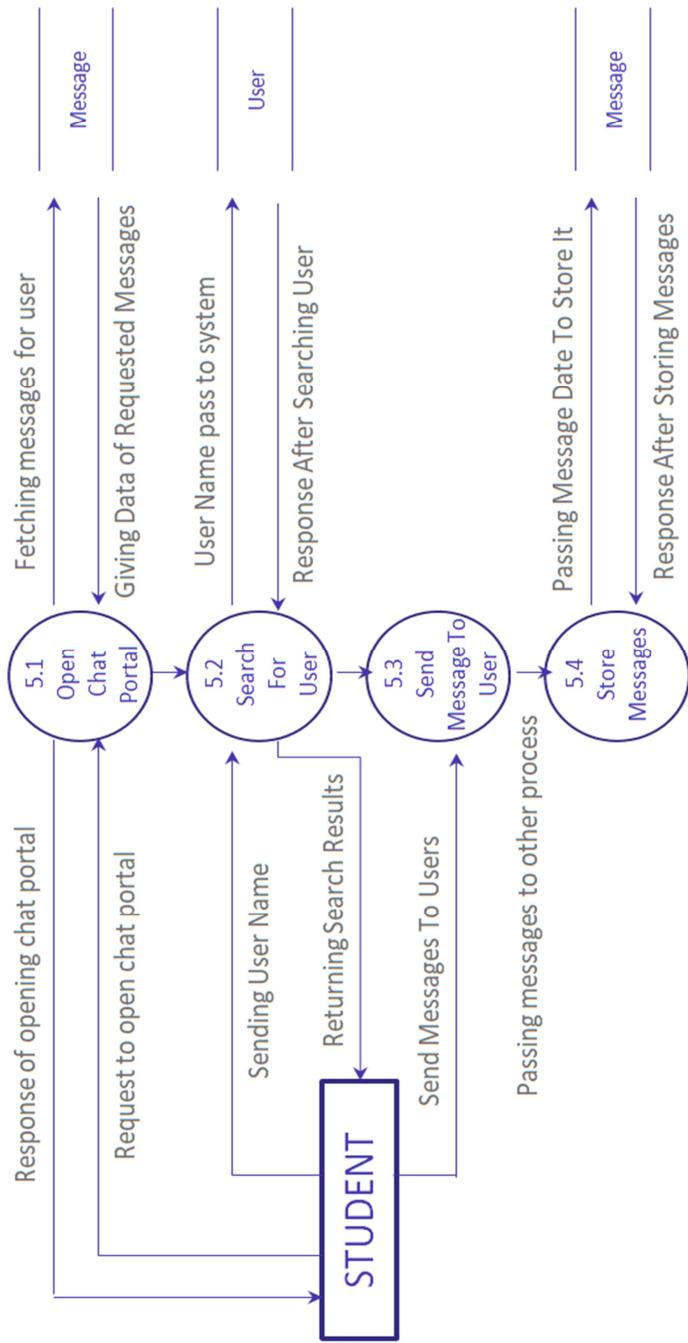
2nd Level DFD (MANAGE USER DFD)



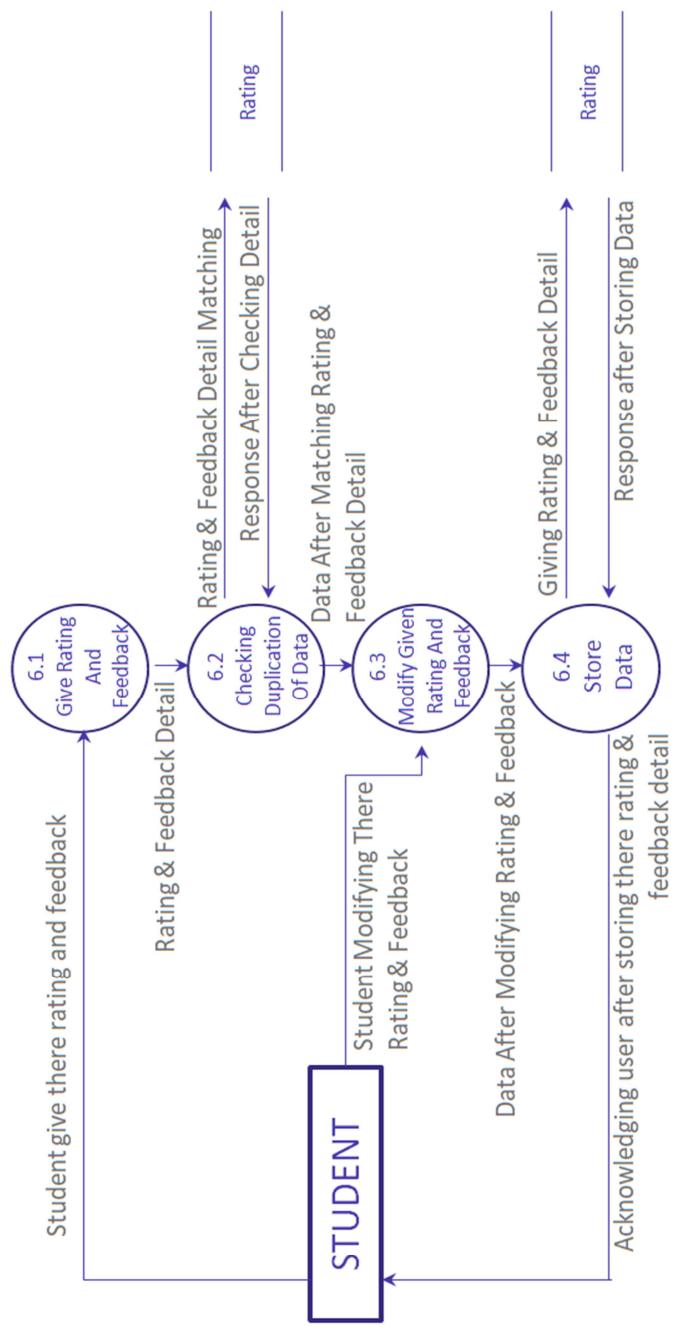
2nd Level DFD (MANAGE CONTENT OF WEBSITE DFD)



2nd Level DFD (COMMUNICATION WITH ADMIN / OTHER USER DFD)



2nd Level DFD (REVIEW COURSE DFD)



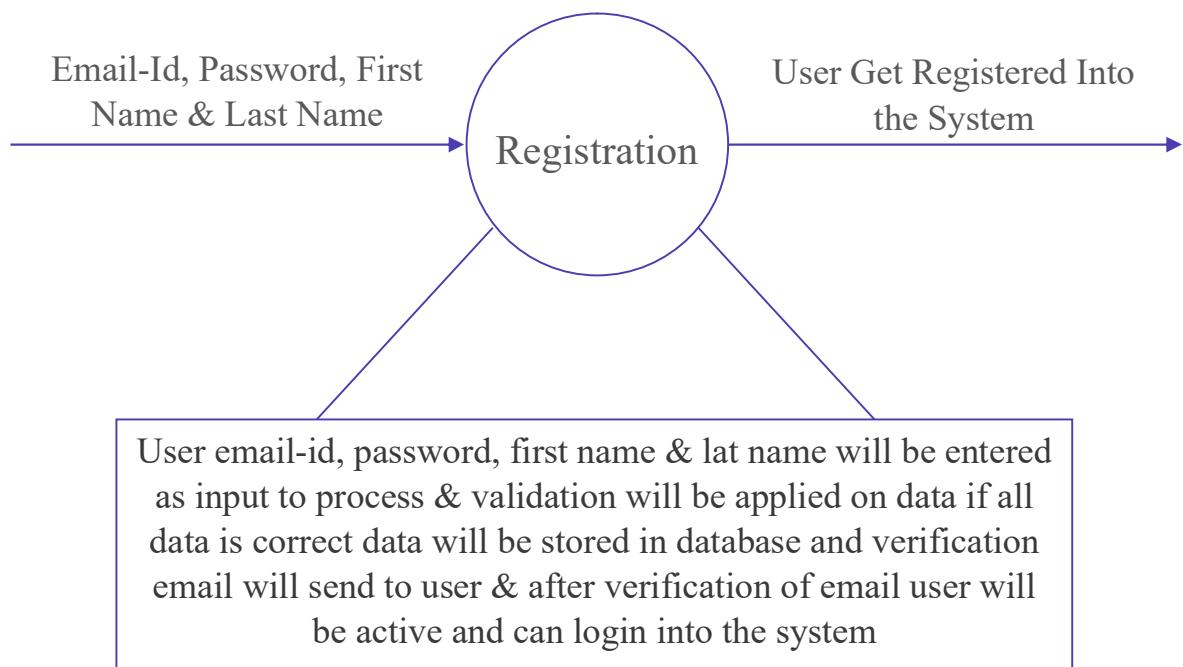
PROCESS SPECIFICATION

1. REGISTRATION

INPUT:-Email-Id, Password, First Name & Last Name

OUTPUT:-User Get Registered Into the System

DESCRIPTION:-User email-id & password will be entered as input to process & validation will be applied on data if all data is correct data will be stored in database and verification email will send to user & after verification of email user will be active and can login into the system



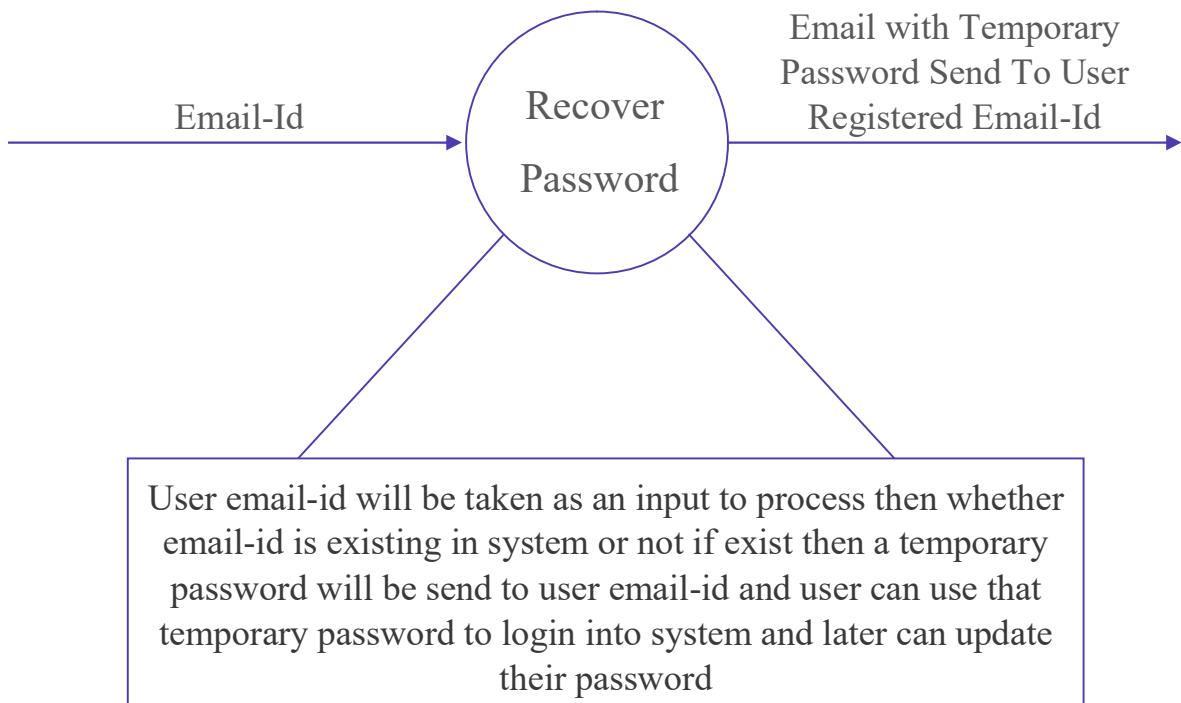
PROCESS SPECIFICATION

2. RECOVER PASSWORD

INPUT:-Email-Id

OUTPUT:-Email with Temporary Password Send to User Registered Email-Id

DESCRIPTION:-User email-id will be taken as an input to process then whether email-id is existing in system or not if exist then a temporary password will be send to user email-id and user can use that temporary password to login into system and later can update their password



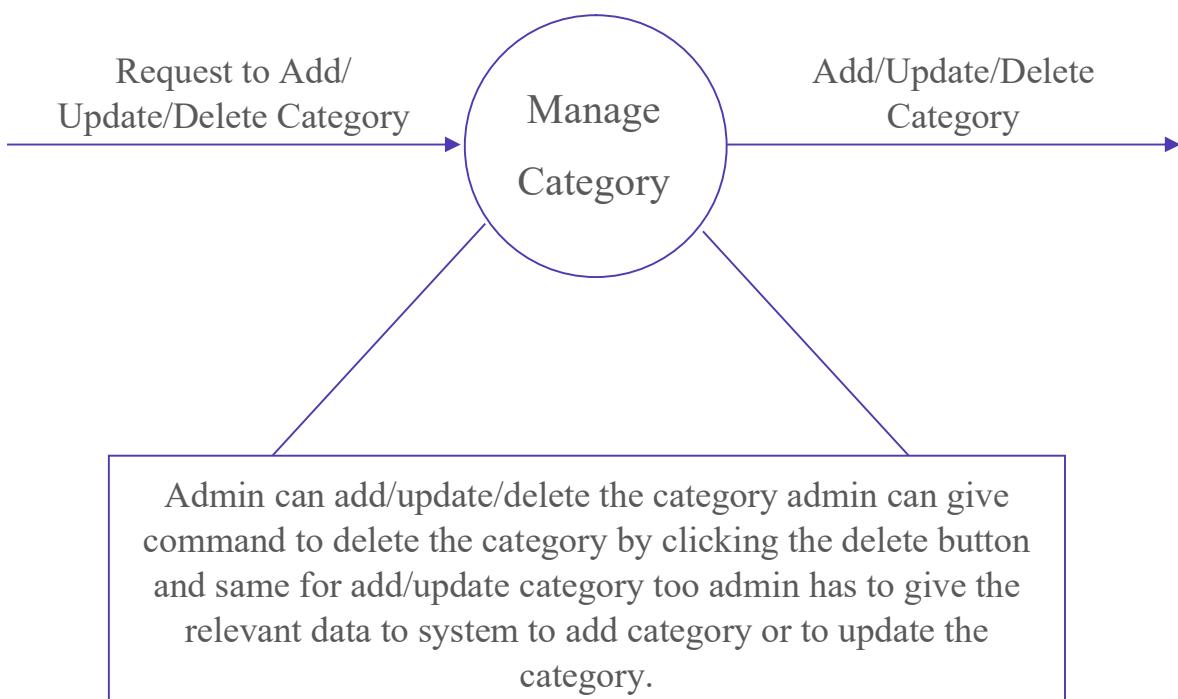
PROCESS SPECIFICATION

3. MANAGE CATEGORY

INPUT:-Request to Add/ Update/Delete Category.

OUTPUT:-Add/ Update/Delete Category.

DESCRIPTION:-Admin can add/update/delete the category user can give command to delete the category by clicking the delete button and same for add/update category too admin has to give the relevant data to system to add category or to update the category.



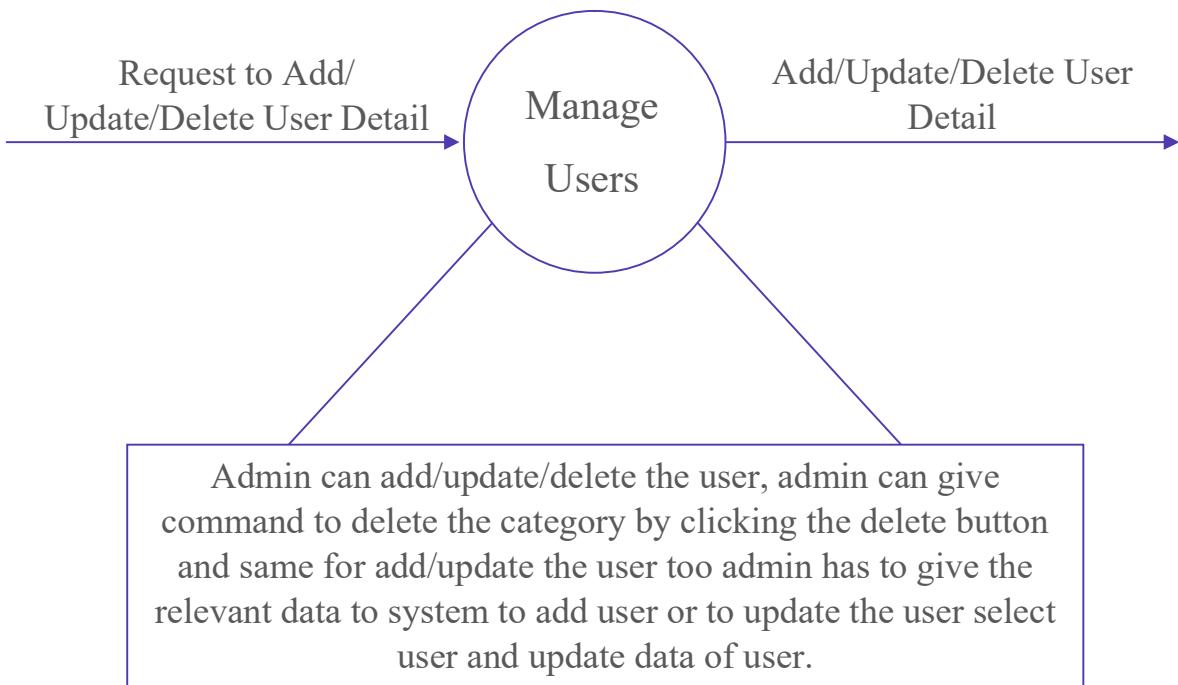
PROCESS SPECIFICATION

4. MANAGE USERS

INPUT:-Request to Add/ Update/Delete User Detail

OUTPUT:-Add/Update/Delete User Detail

DESCRIPTION:-Admin can add/update/delete the user, admin can give command to delete the category by clicking the delete button and same for add/update the user too admin has to give the relevant data to system to add user or to update the user select user and update data of user.



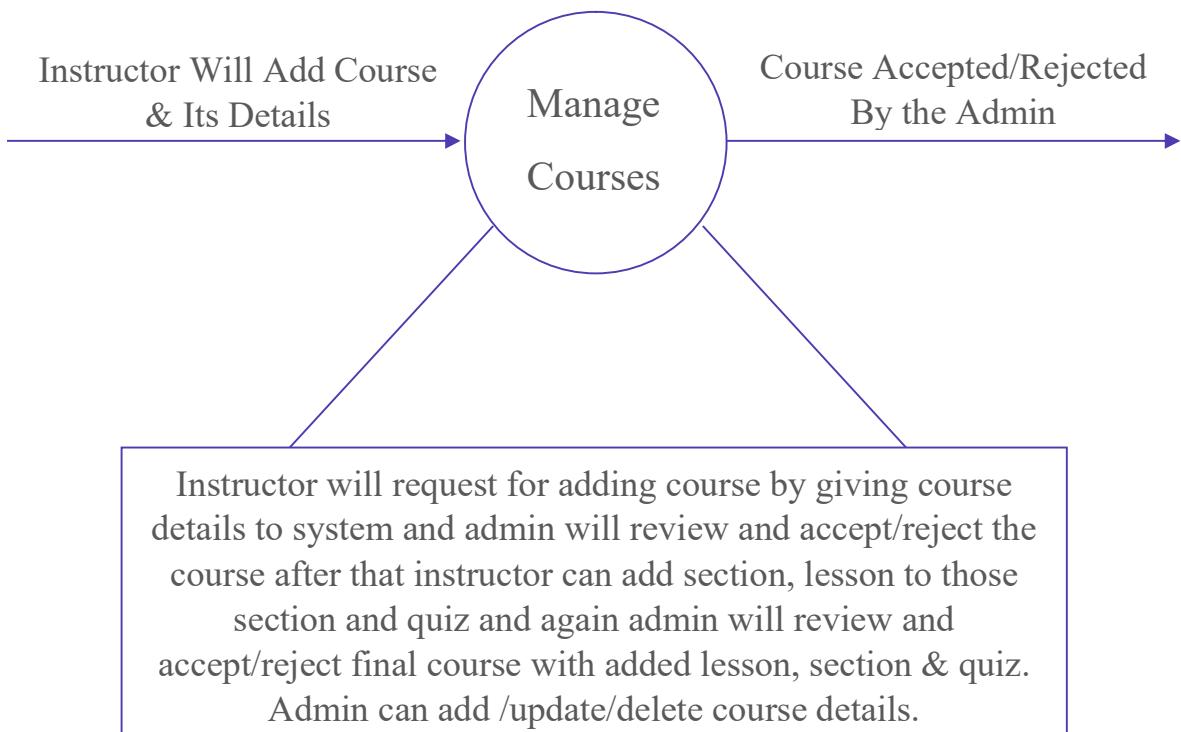
PROCESS SPECIFICATION

5. MANAGE COURSE

INPUT:-Instructor Will Add Course & Its Details

OUTPUT:-Course Accepted/Rejected By the Admin

DESCRIPTION:-Instructor will request for adding course by giving course details to system and admin will review and accept/reject the course after that instructor can add section, lesson to those section and quiz and again admin will review and accept/reject final course with added lesson, section & quiz. Admin can add /update/delete course details.



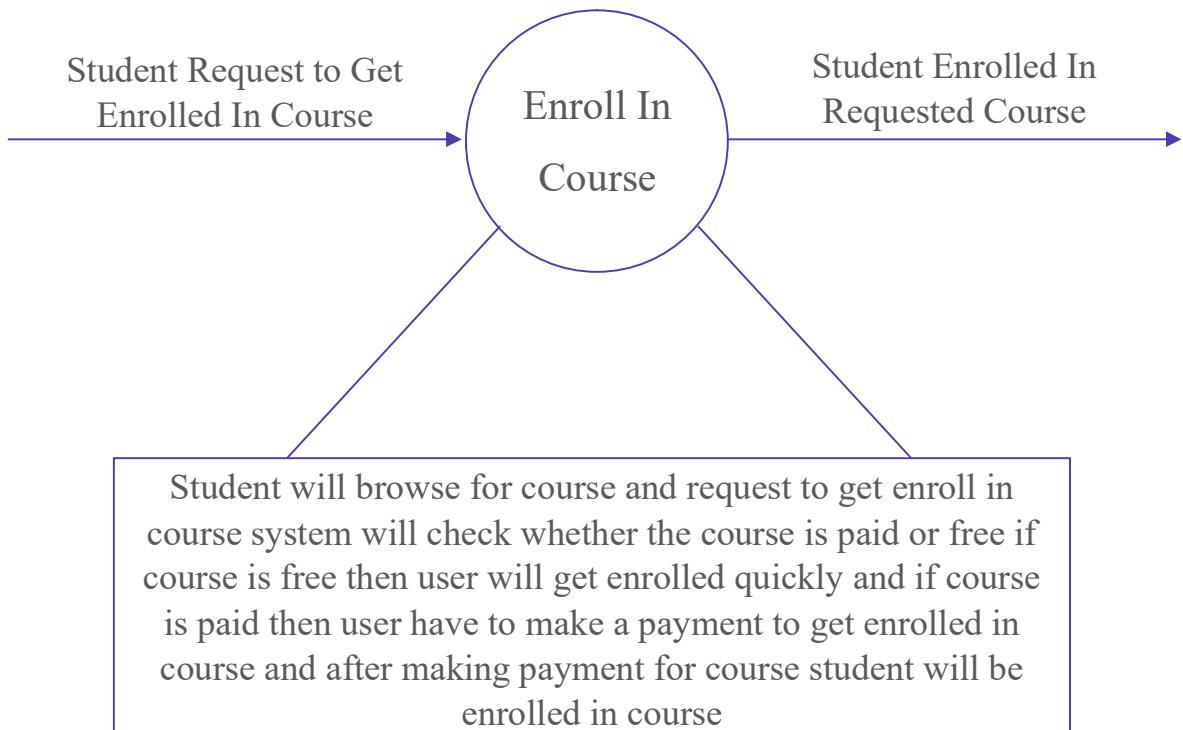
PROCESS SPECIFICATION

6. ENROLL IN COURSE

INPUT:-Student Request to Get Enrolled In Course

OUTPUT:-Student Enrolled In Requested Course

DESCRIPTION:-Student will browse for course and request to get enroll in course system will check whether the course is paid or free if course is free then user will get enrolled quickly and if course is paid then user have to make a payment to get enrolled in course and after making payment for course student will be enrolled in course



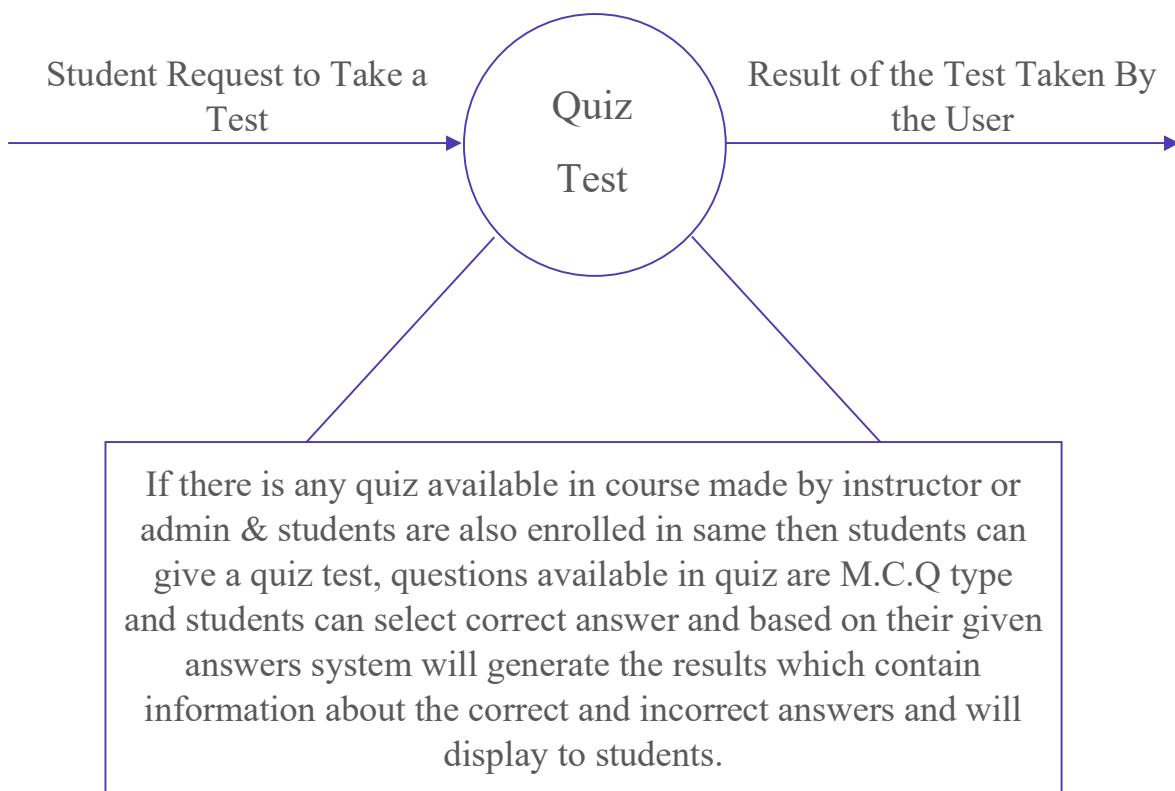
PROCESS SPECIFICATION

7. QUIZ TEST

INPUT:-Student Request to Take a Test

OUTPUT:-Result of the Test Taken By the User

DESCRIPTION:-If there is any quiz available in course made by instructor or admin & students are also enrolled in same then students can give a quiz test, questions available in quiz are M.C.Q type and students can select correct answer and based on their given answers system will generate the results which contain information about the correct and incorrect answers and will display to students.



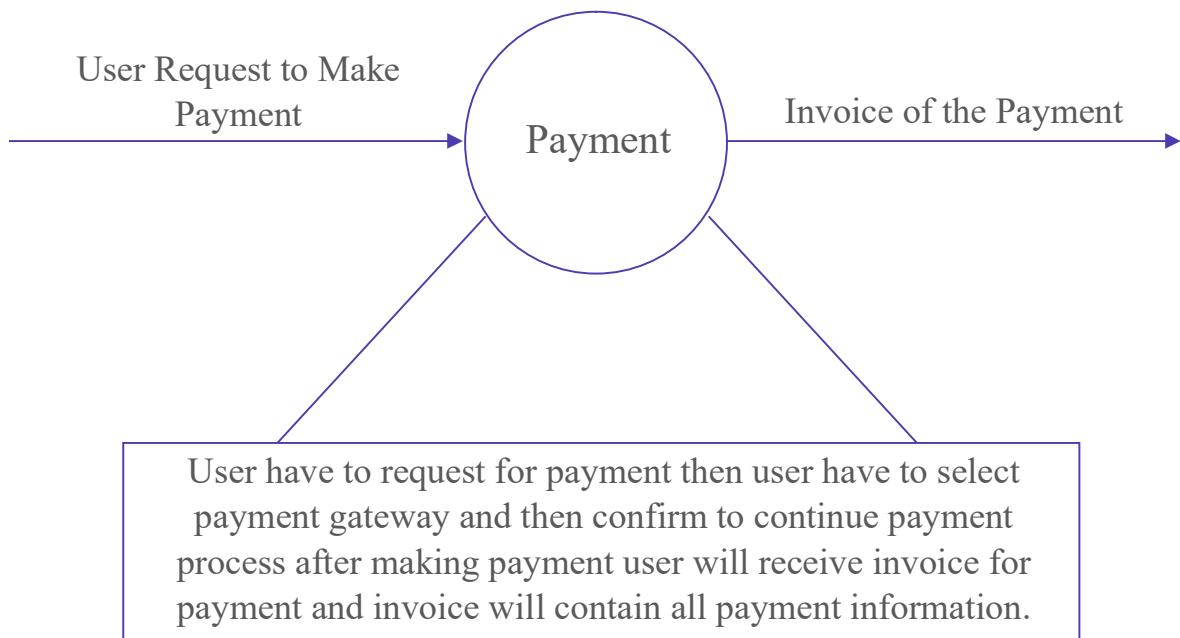
PROCESS SPECIFICATION

8. PAYMENT

INPUT:-User Request to Make Payment

OUTPUT:-Invoice of the Payment

DESCRIPTION:-User have to request for payment then user have to select payment gateway and then confirm to continue payment process after making payment user will receive invoice for payment and invoice will contain all payment information.



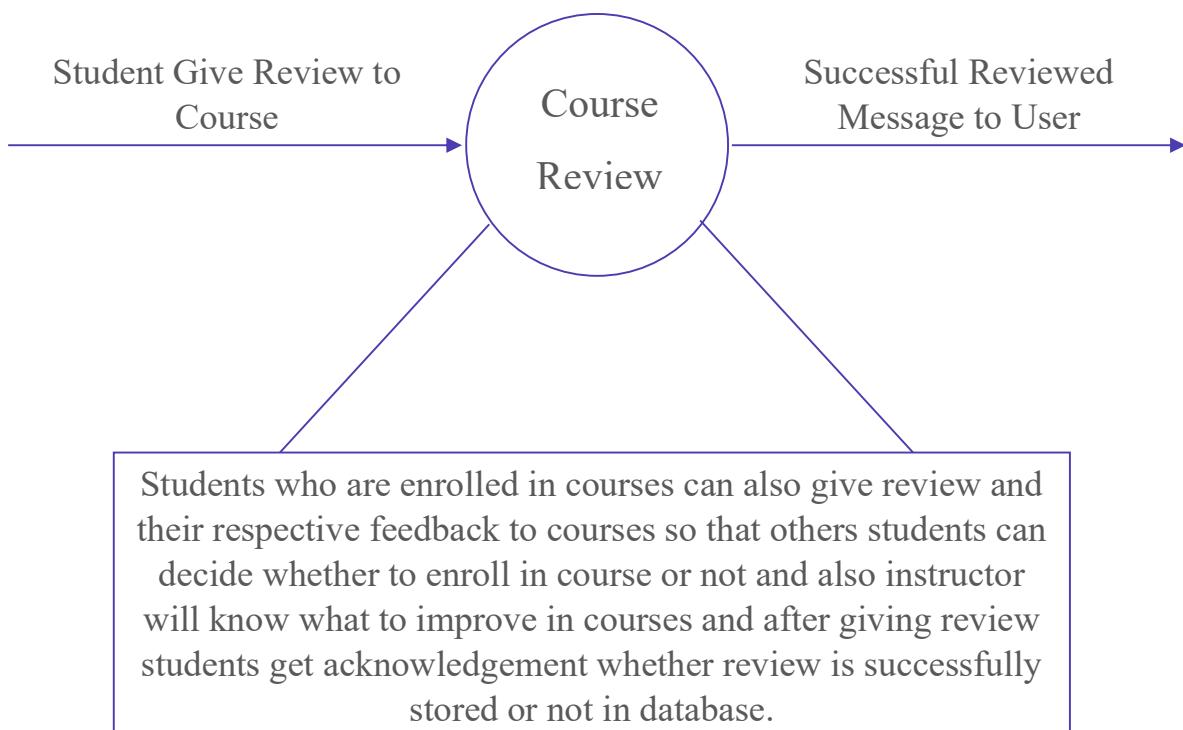
PROCESS SPECIFICATION

9. COURSE REVIEW

INPUT:-Student Give Review to Course

OUTPUT:-Successful Reviewed Message to User

DESCRIPTION:-Students who are enrolled in courses can also give review and their respective feedback to courses so that others students can decide whether to enroll in course or not and also instructor will know what to improve in courses and after giving review students get acknowledgement whether review is successfully stored or not in database.



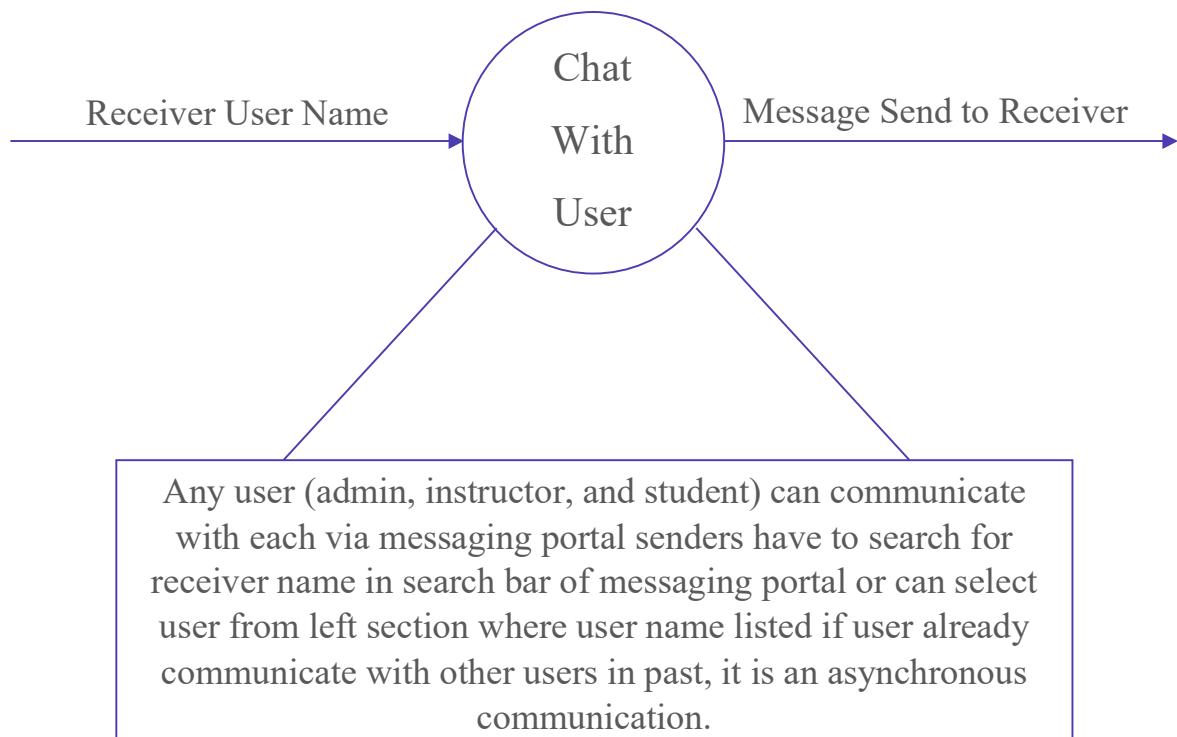
PROCESS SPECIFICATION

10. CHAT WITH USER

INPUT:-Receiver User Name

OUTPUT:-Message Send to Receiver

DESCRIPTION:-Any user (admin, instructor, and student) can communicate with each via messaging portal senders have to search for receiver name in search bar of messaging portal or can select user from left section where user name listed if user already communicate with other users in past, it is an asynchronous communication.



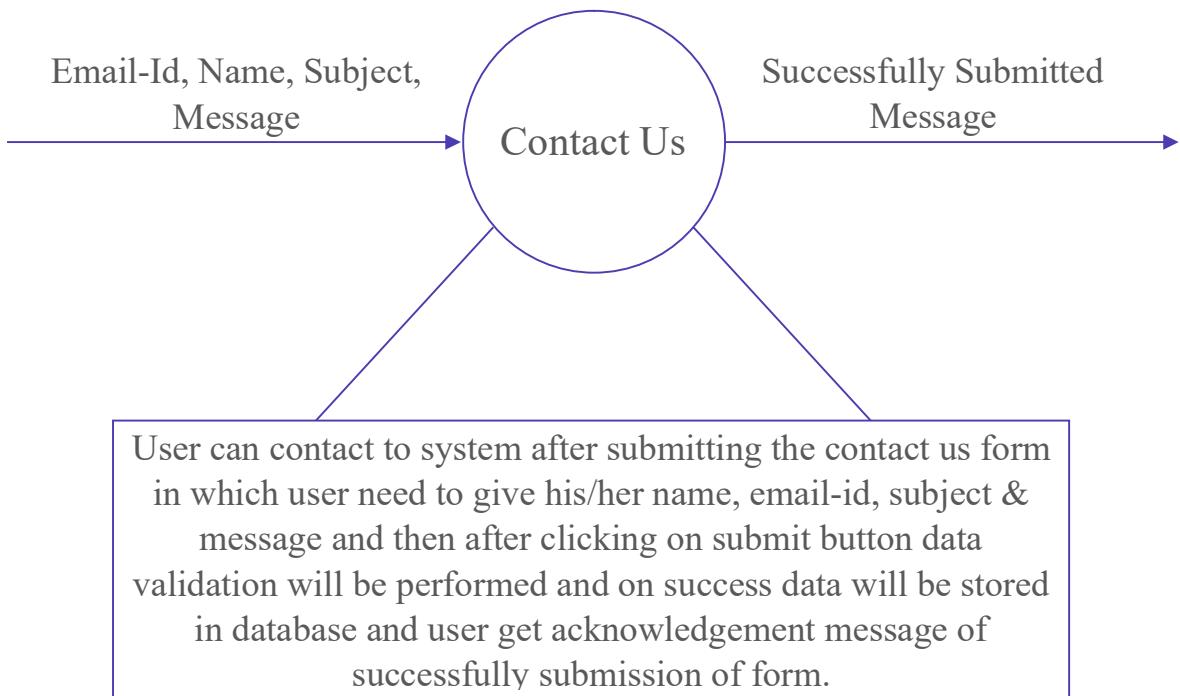
PROCESS SPECIFICATION

11. CONTACT US

INPUT:-Email-Id, Name, Subject, Message

OUTPUT:-Successfully Submitted Message

DESCRIPTION:-User can contact to system after submitting the contact us form in which user need to give his/her name, email-id, subject & message and then after clicking on submit button data validation will be performed and on success data will be stored in database and user get acknowledgement message of successfully submission of form.



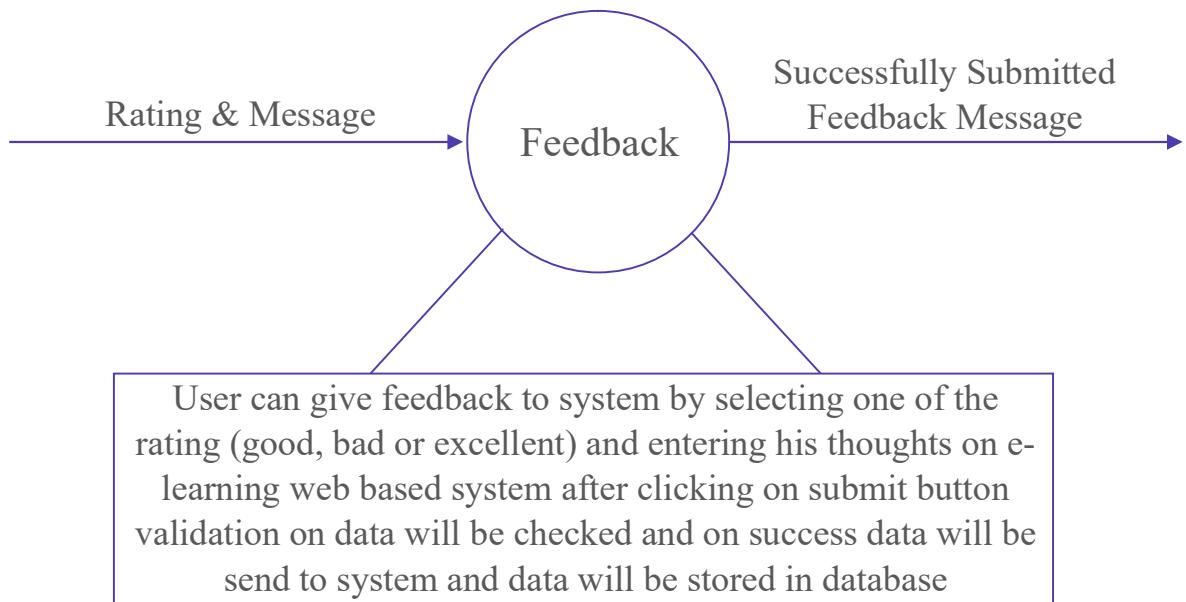
PROCESS SPECIFICATION

12. FEEDBACK

INPUT:-Rating & Message

OUTPUT:-Successfully Submitted Feedback Message

DESCRIPTION:-User can give feedback to system by selecting one of the rating (good, bad or excellent) and entering his thoughts on e-learning web based system after clicking on submit button validation on data will be checked and on success data will be send to system and data will be stored in database



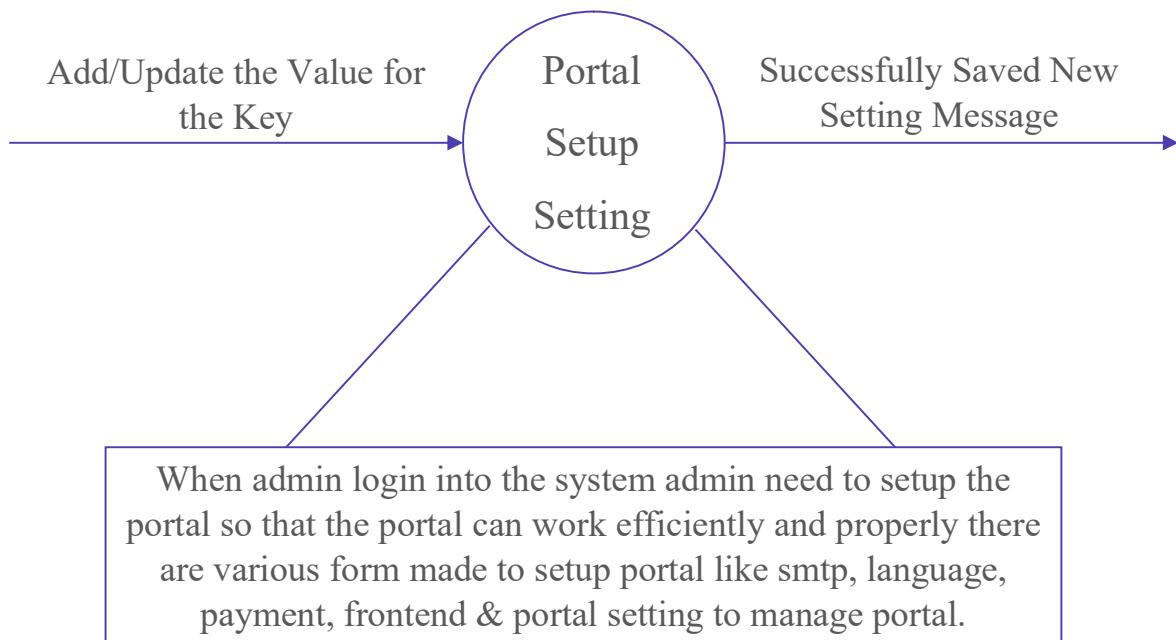
PROCESS SPECIFICATION

13. PORTAL SETUP SETTING

INPUT:-Add/Update the Value for the Key

OUTPUT:-Successfully Saved New Setting Message

DESCRIPTION:-When admin login into the system admin need to setup the portal so that the portal can work efficiently and properly there are various form made to setup portal like smtp, language, payment, frontend & portal setting to manage portal.



DATA DICTIONARY

CATEGORY

Column	Type	Null	Default	Comments
id(Primary)	int(11)	No		Unique id to identify each tuple uniquely
Code	varchar(255)	Yes	NULL	Unique alphanumeric code to identify each category uniquely
Name	varchar(255)	Yes	NULL	Category name
Parent	int(11)	Yes	0	To tell system whether category/sub-category data are you entering
Slug	varchar(255)	Yes	NULL	How category name is going to look in address bar
date_added	int(11)	Yes	NULL	When category is added to system
last_modified	int(11)	Yes	NULL	Last date when category table data modified
font_awesome_class	varchar(255)	Yes	NULL	Font_awesome_class icon name
Thumbnail	varchar(255)	Yes	NULL	Contain encrypted path where category image is store in system

DATA DICTIONARY

CI_SESSIONS

Column	Type	Null	Default	Comments
id (primary)	Varchar(40)	No		Unique id to uniquely identify each tuple uniquely in table
Ip_address	Varchar(45)	No	NULL	Ip address of user who logged in system
timestamp	int(10)	No	0	Date and time when user logged in system
data	blob	No	NULL	User data(cache/cookie) is stored for that session

DATA DICTIONARY

CONTACT_US

Column	Type	Null	Default	Comments
id (Primary)	int(11)	No		Unique id to identify each tuple uniquely
Name	varchar(50)	No		Name of user who is contacting
Email	varchar(50)	No		Email id of user
date_of_contact	int(11)	No		Date when user try to contact with admin
Subject	varchar(50)	No		Subject of contacting to admin
message	varchar(50)	No		Message by user to admin
status	varchar(50)	No	Pending	Status regarding whether admin read the message send by user

DATA DICTIONARY

COURSE

Column	Type	Null	Default	Comments
id (Primary)	int(11)	No		Unique id to identify each tuple uniquely
title	varchar(255)	Yes	NULL	Title of the course
short_description	Longtext	Yes	NULL	Short description of the course
description	longtext	Yes	NULL	More detail on the course
outcomes	longtext	Yes	NULL	Output after the completion of the course
language	varchar(255)	Yes	NULL	Language of the course
category_id	int(11)	Yes	NULL	To which category course belongs to
sub_category_id	int(11)	Yes	NULL	To which sub-category course belongs to
section	longtext	Yes	NULL	Id of all section which is in course
requirements	longtext	Yes	NULL	Pre-requisites before enrolling in course
price	double	Yes	NULL	Price to enroll in course
discount_flag	int(11)	Yes	0	A flag indicating whether course has a discount or not
discount_price	int(11)	Yes	NULL	Price of course after discount
level	varchar(255)	Yes	NULL	Difficulty of course
user_id	int(11)	Yes	NULL	Which user uploaded the course
thumbnail	varchar(255)	Yes	NULL	Path of image set for course in system

video_url	varchar(255)	Yes	NULL	Course preview video link uploaded on the cloud
date_added	int(11)	Yes	NULL	Date when course is added in a system
last_modified	int(11)	Yes	NULL	Last date when course data is modified
visibility	int(11)	Yes	NULL	Whether course is publicly available or kept hidden from other users
is_top_course	int(11)	Yes	0	Whether the course is one of the top course or not(flag)
is_admin	int(11)	Yes	NULL	Whether the course is uploaded by admin (flag)
status	varchar(255)	Yes	NULL	Whether the course is accepted by admin or not
course_overview_provider	varchar(255)	Yes	NULL	Which source contain and will produce the overview of course
meta_keywords	longtext	Yes	NULL	Contain set of keyword help to rank better in search index in system
meta_description	longtext	Yes	NULL	Description of course for better search results
is_free_course	int(11)	Yes	NULL	Whether the course is free or paid (flag)

DATA DICTIONARY

CURRENCY

Column	Type	Null	Default	Comments
id (Primary)	int(11)	No		Unique id to identify each tuple uniquely
name	varchar(255)	Yes	NULL	Currency name
code	varchar(255)	Yes	NULL	Code of currency
symbol	varchar(255)	Yes	NULL	Symbol for currency
paypal_supported	int(11)	Yes	NULL	Is currency is supported by paypal or not
stripe_supported	int(11)	Yes	NULL	Is currency is supported by stripe or not

DATA DICTIONARY

ENROLL

Column	Type	Null	Default	Comments
id (Primary)	int(11)	No		Unique id to identify every enrolled user uniquely
user_id	int(11)	Yes	NULL	User who is enrolled
course_id	int(11)	Yes	NULL	Course in which user enrolled
date_added	int(11)	Yes	NULL	Date When user enrolled for the course
last_modified	int(11)	Yes	NULL	Last time enrolled user data is modified

DATA DICTIONARY

FEEDBACK

Column	Type	Null	Default	Comments
id(Primary)	int(11)	No		Unique value to identify each tuple uniquely
user_id	int(11)	Yes	NULL	Which user has given feedback
rating	int(11)	No		Rating from the user
message	varchar(255)	No		Comment/feedback from the user.
date_added	int(11)	Yes	NULL	Date when feedback Is given by user

DATA DICTIONARY

FRONTEND_SETTINGS

Column	Type	Null	Default	Comments
id (Primary)	int(11)	No		Unique id to identify each tuple uniquely
key	varchar(255)	Yes	NULL	Key refers to the frontend of system
Value	longtext	Yes	NULL	Value for keys going to display on system to user

DATA DICTIONARY

LANGUAGE

Column	Type	Null	Default	Comments
phrase_id (Primary)	int(11)	No		Unique id to identify each phrase uniquely
phrase	longtext	Yes	Null	Phrase/keywords used in system
english	longtext	Yes	Null	How phrase will display in English language to user
Hindi	longtext	Yes	Null	How phrase will display in hindi language to user

DATA DICTIONARY

LESSON

Column	Type	Null	Default	Comments
id (Primary)	int(11)	No		Unique id to identify each lesson uniquely
Title	varchar(255)	Yes	NULL	Title of the lesson
duration	varchar(255)	Yes	NULL	Duration of lesson
course_id	int(11)	Yes	NULL	Lesson refers to which course
section_id	int(11)	Yes	NULL	Lesson refers to which section in course
video_type	varchar(255)	Yes	NULL	Source of video (platform)
video_url	varchar(255)	Yes	NULL	url of video to be uploaded
date_added	int(11)	Yes	NULL	When lesson added to system
last_modified	int(11)	Yes	NULL	Last date when lesson data is modified
lesson_type	varchar(255)	Yes	NULL	Type of lesson
attachment	varchar(255)	Yes	NULL	File attached to lesson
Attachment type	varchar(255)	Yes	NULL	What kind of file is attached
summary	Longtext	Yes	NULL	Short description of lesson
Order	int(11)	No	0	Order of lesson in which it's arranged in section

DATA DICTIONARY

MESSAGE

Column	Type	Null	Default	Comments
message_id (primary)	int(11)	No		Unique id to identify each message uniquely
message_thread_code	Longtext	Yes	NULL	Unique code to identify each conversation(session) between users uniquely
message	longtext	Yes	NULL	Message
sender	longtext	Yes	NULL	User who is sending message
timestamp	longtext	Yes	NULL	Date & time when message is send
read_status	int(11)	Yes	NULL	Whether the message is read by the receiver (flag)

DATA DICTIONARY

MESSAGE_THREAD

Column	Type	Null	Default	Comments
message_thread_id (Primary)	int(11)	No		Unique code to identify each tuple uniquely
message_thread_code	longtext	Yes	NULL	Unique code to identify each message thread code uniquely
Sender	varchar(255)	Yes		User who is sending message
Receiver	varchar(255)	Yes		User who is receiving message
last_message_timestamp	longtext	Yes	NULL	Last Date & time when conversation held between users in a session.

DATA DICTIONARY

PAYMENT

Column	Type	Null	Default	Comments
id (Primary)	int(11)	No		Unique id to identify each transaction uniquely
user_id	int(11)	Yes	NULL	Which user had made the payment
payment_type	varchar(255)	Yes	NULL	which payment gateway is used to make payment
course_id	int(11)	Yes	NULL	For which course user is making payment
amount	varchar(255)	Yes	NULL	Amount of transaction made
date_added	int(11)	Yes	NULL	Date when transaction has taken place
last_modified	int(11)	Yes	NULL	Last date when payment details are modified
admin_revenue	varchar(255)	Yes	NULL	Admin revenue from the transaction
instructor_revenue	varchar(255)	Yes	NULL	instructor revenue from the transaction
instructor_payment_status	int(11)	Yes	0	Whether the instructor has got paid or not(flag)

DATA DICTIONARY

QUESTION

Column	Type	Null	Default	Comments
id (Primary)	int(11)	No		Unique id to identify each questions of quizzes uniquely
quiz_id	int(11)	Yes	NULL	Unique id given to each quizzes
title	longtext	Yes	NULL	Title of the quiz
type	varchar(255)	Yes	NULL	Type of the quiz
number_of_options	int(11)	Yes	NULL	Number of options in the question
options	longtext	Yes	NULL	Option name/description
correct_answer	longtext	Yes	NULL	Which options is/are correct
order	int(11)	No	0	Order of the questions in a quiz

DATA DICTIONARY

RATING

Column	Type	Null	Default	Comments
id (Primary)	int(11)	No		Unique id to identify each tuple uniquely
rating	double	Yes	NULL	Rating point given by user out of 5 point.
user_id	int(11)	Yes	NULL	User id who has given rating
ratable_id	int(11)	Yes	NULL	Unique id to identify each rating uniquely
ratable_type	varchar(255)	Yes	NULL	Rating is given to which type of component (course or something else)
date_added	int(11)	Yes	NULL	Date when rating was given by user
last_modified	int(11)	Yes	NULL	Last date when rating was modified by user
review	Longtext	Yes	NULL	review message by user

DATA DICTIONARY

ROLE

Column	Type	Null	Default	Comments
id (Primary)	int(11)	No		Unique id to identify each role in a table
name	varchar(255)	Yes	NULL	Name of role
date_added	int(11)	Yes	NULL	Date when the role is added into a system
last_modified	int(11)	Yes	NULL	Last date when the role data is modified

DATA DICTIONARY

SECTION

Column	Type	Null	Default	Comments
id (Primary)	int(11)	No		Unique id to identify each section
title	Varchar(255)	Yes	NULL	Title of the section
course_id	int(11)	Yes	NULL	Section belongs to which course
order	int(11)	No	0	Order of the section in course

DATA DICTIONARY

SETTINGS

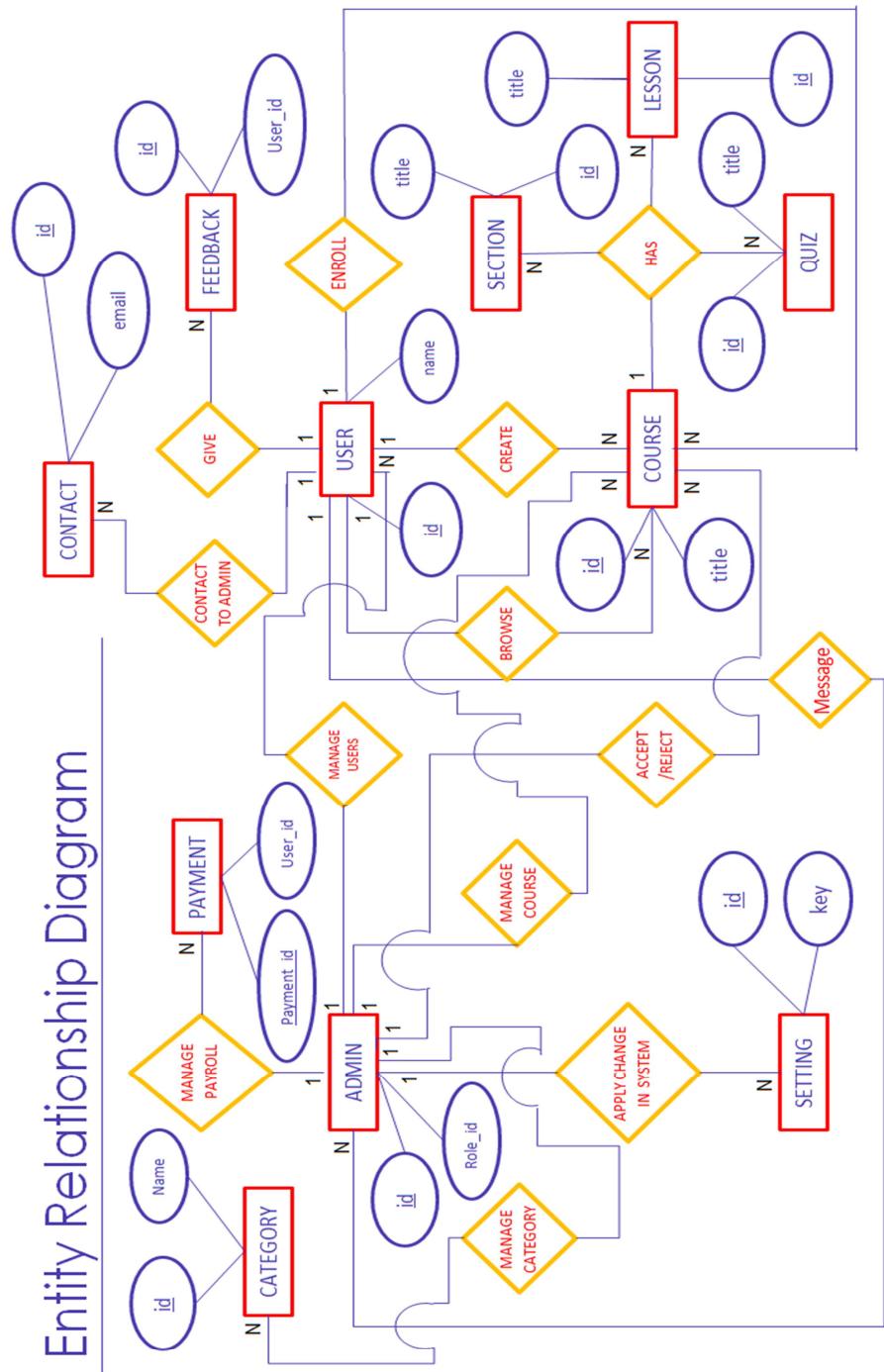
Column	Type	Null	Default	Comments
id (Primary)	int(11)	No		Unique id given to each key to uniquely identify it
key	varchar(255)	Yes	NULL	Refers to different parameters of systems
value	longtext	Yes	NULL	Value for the parameters

DATA DICTIONARY

USERS

Column	Type	Null	Default	Comments
id (Primary)	int(11)	No		Unique id to identify Each user
first_name	varchar(255)	Yes	NULL	First name of user
last_name	varchar(255)	Yes	NULL	Last name of user
email	varchar(255)	Yes	NULL	Email id of user
password	varchar(255)	Yes	NULL	Password of user to login into the system
social_links	longtext	Yes	NULL	Link of social account
biography	longtext	Yes	NULL	About user
role_id	int(11)	Yes	NULL	id given to user to differentiate between them whether they are student or educators
date_added	int(11)	Yes	NULL	Date when user has signed up into the system
last_modified	int(11)	Yes	NULL	Last date when user data is modified
watch_history	longtext	Yes	NULL	List of course user has watched in past
wishlist	longtext	Yes	NULL	List of courses user added to get enrolled later
paypal_keys	longtext	Yes	NULL	User paypal key
stripe_keys	longtext	Yes	NULL	User live stripe key
verification_code	longtext	Yes	NULL	Contain email verification code
status	int(11)	Yes	NULL	Whether user is active or not (flag)

Entity Relationship Diagram





06

SYSTEM DESIGNING

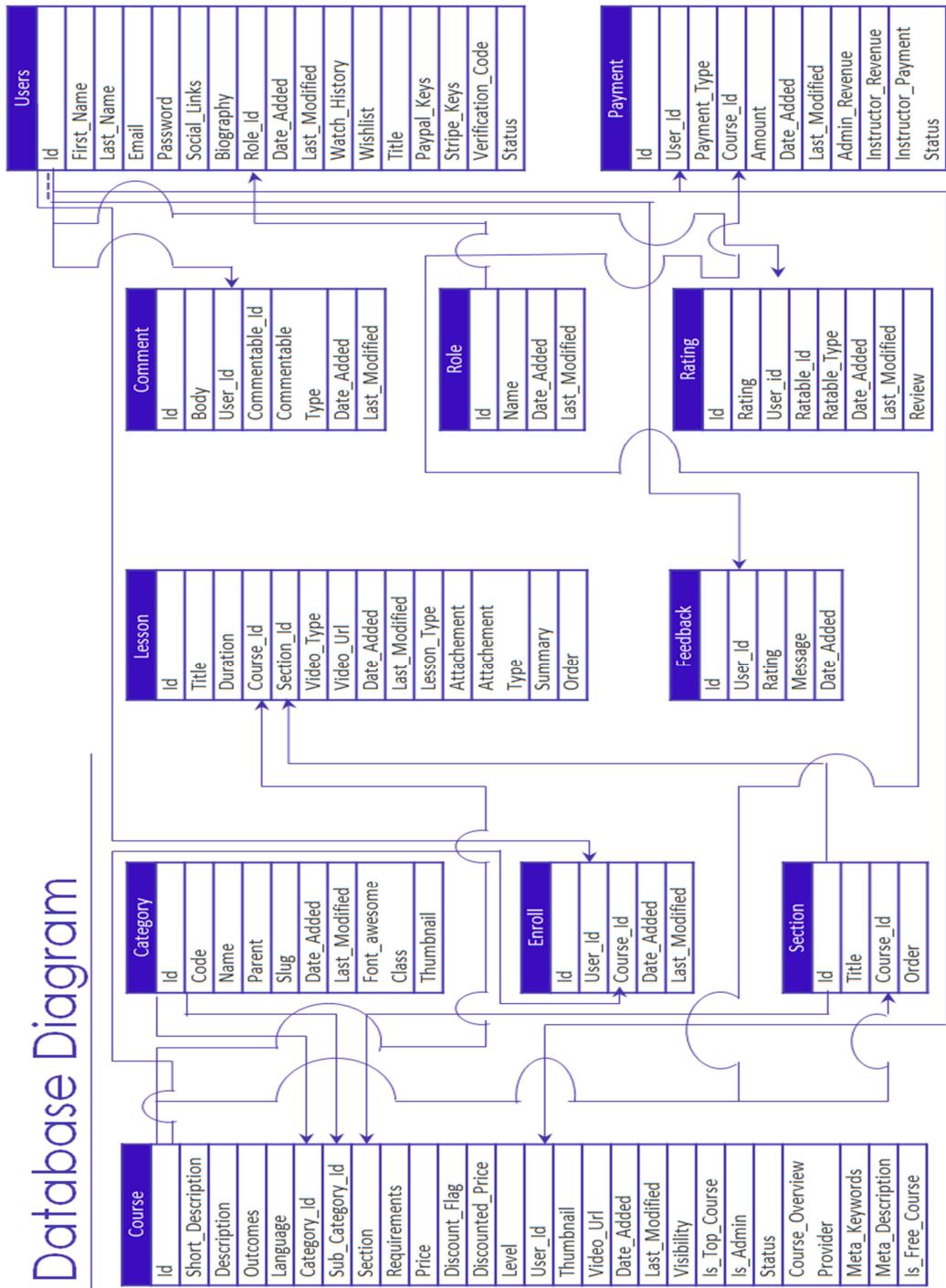
6.1 DATABASE DESIGN

6.2 DIRECTORY STRUCTURE

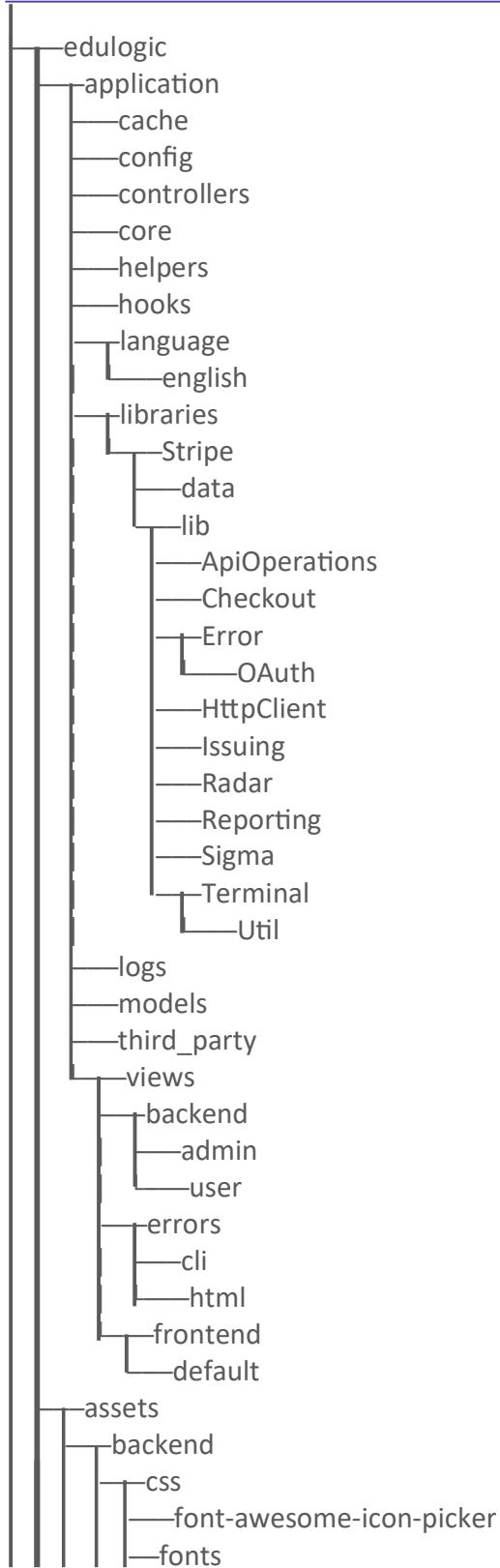
6.3 INPUT DESIGN

6.4 OUTPUT DESIGN

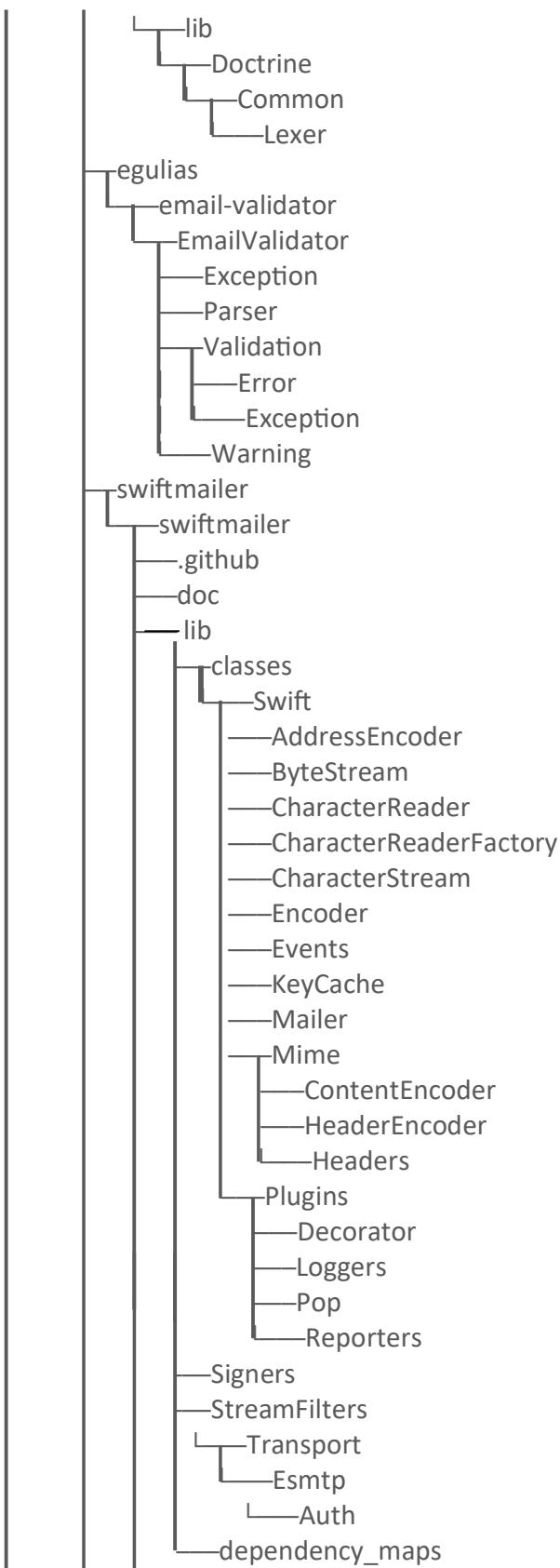
Database Diagram

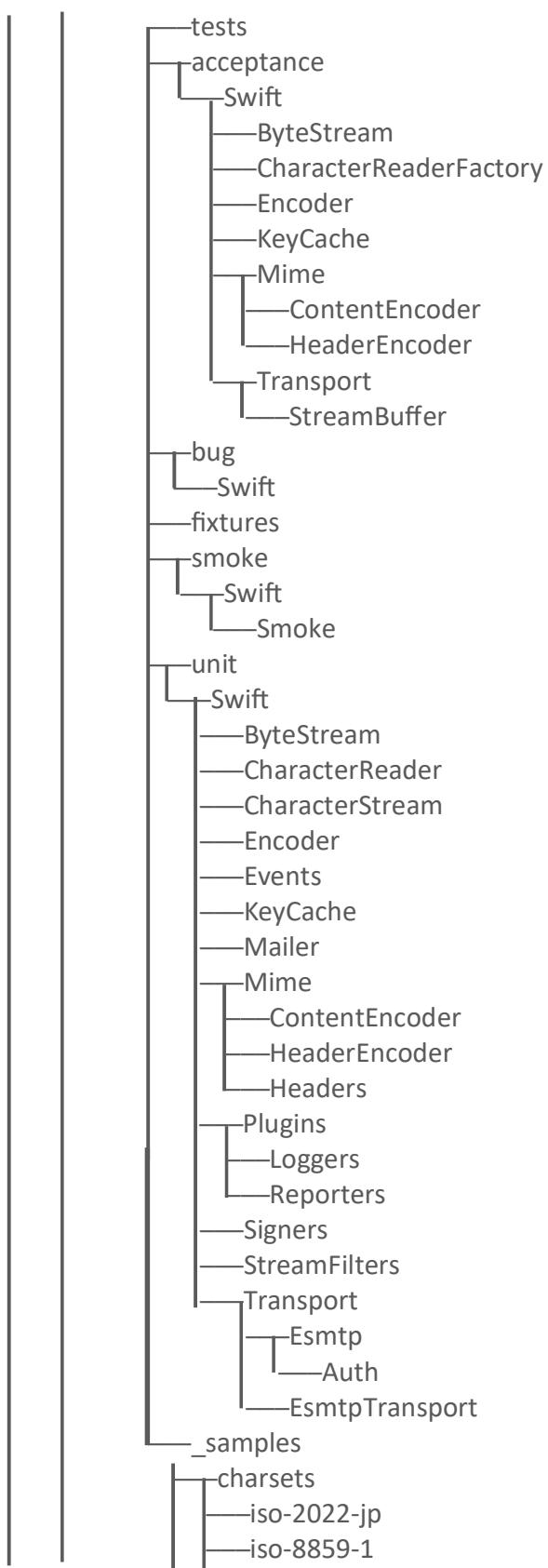


DIRECTORY STRUCTURE



```
    └── vendor
        ├── fonts
        ├── images
        └── js
            ├── font-awesome-icon-picker
            ├── pages
            └── ui
                └── vendor
                    ├── lesson_icon
                    ├── login
                    └── webfonts
    └── frontend
        ├── default
        │   ├── css
        │   │   └── fonts
        │   └── img
        │       ├── icons
        │       │   ├── circle
        │       │   │   ├── 1x
        │       │   │   └── 2x
        │       │   └── isolated
        │       │       ├── 1x
        │       │       └── 2x
        │       ├── illustrations
        │       └── photos
        └── js
            ├── skins
            │   └── lightgray
            │       ├── fonts
            │       └── img
            └── vendor
                ├── old-webfonts
                └── webfonts
    └── global
        ├── plyr
        └── toastr
    └── payment
        ├── css
        └── js
    └── vendor
        ├── composer
        ├── doctrine
        └── lexer
```





```
    └── utf-8
        ├── dkim
        ├── files
        └── smime
    └── symfony
        ├── polyfill-iconv
        │   └── Resources
        │       └── charset
        ├── polyfill-intl-idn
        ├── polyfill-mbstring
        │   └── Resources
        │       └── unidata
        └── polyfill-php72
    └── ci_sessions
    └── system
        ├── core
        │   └── compat
        └── database
            └── drivers
                ├── cubrid
                ├── ibase
                ├── mssql
                ├── mysql
                ├── mysqli
                ├── oci8
                ├── odbc
                └── pdo
                    └── subdrivers
                ├── postgres
                ├── sqlite
                ├── sqlite3
                └── sqlsrv
        └── fonts
        └── helpers
    └── language
        └── english
    └── libraries
        ├── Cache
        │   └── drivers
        ├── Javascript
        └── Session
            └── drivers
    └── uploads
        └── category_thumbnails
```

```
lesson_files
├── system
└── thumbnails
    ├── category_thumbnails
    ├── course_thumbnails
    └── lesson_thumbnails
└── user_image
```

INPUT DESIGN (ADMIN)

ADD CATEGORY FORM

CATEGORY ADD FORM

Category Code

Category Title*

Parent

Icon Picker

Category Thumbnail (The Image Size Should Be: 400 X 255)

INPUT DESIGN (ADMIN)

ADD STUDENT

STUDENT ADD FORM

Basic Info Login Credentials Social Information Payment Info Finish

First Name*

Last Name*

Biography
 Write something...
 

User Image
 

STUDENT ADD FORM

Basic Info Login Credentials Social Information Payment Info Finish

Email*

Password*



STUDENT ADD FORM

Basic Info Login Credentials Social Information Payment Info Finish

Facebook

Twitter

LinkedIn

← →

STUDENT ADD FORM

Basic Info Login Credentials Social Information Payment Info Finish

Paypal Client Id
Required For Instructor

Stripe Public Key
Required For Instructor

Stripe Secret Key
Required For Instructor

← →

STUDENT ADD FORM

Basic Info Login Credentials Social Information Payment Info Finish

✓
Thank You !
You Are Just One Click Away
Submit

← →

INPUT DESIGN (ADMIN)

ENROLL STUDENT

ENROLMENT FORM

User*

Select A User

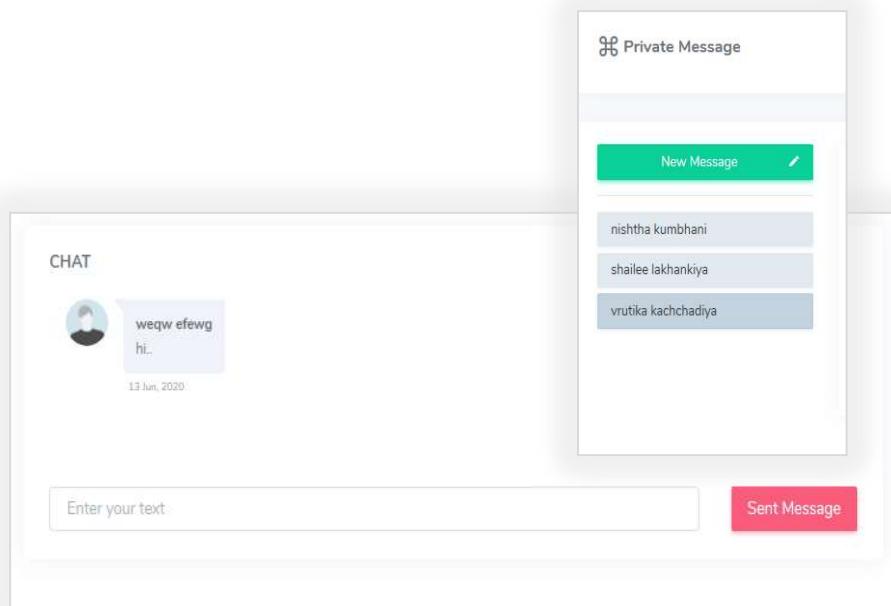
Course To Enrol*

Select A Course

Enrol Student

INPUT DESIGN (ADMIN)

CHATTING WITH USER



INPUT DESIGN (ADMIN)

SYSTEM SETTING

SYSTEM SETTINGS

Website Name*	Learning Management System Online
Website Title*	Learning Management System Online
Website Keywords	LMS x Learning Management System x Creativeitem x demo x How are you x
Website Description	Nice application
Author	Learning Management System Online
Slogan*	A course based video CMS
System Email*	
edulogic9@gmail.com	
Address	
Learning Management System Online	
Phone	
+143-52-9933631	
Youtube Api Key* (Get Youtube Api Key)	
AlzaSyDzu9ghiljah4QFT1ovKuzmMdq4Uf5u4Cc	
Vimeo Api Key* (Get Vimeo Api Key)	
57a92d65524335af6b12fbe9eb64c52d	
Student Email Verification	
Enable	
Footer Link	
Save	

INPUT DESIGN (ADMIN)

PAYMENT SETTING

The screenshot shows a user interface for managing payment settings. It is divided into two main sections: 'SYSTEM CURRENCY SETTINGS' on the left and 'SETUP STRIPE SETTINGS' and 'SETUP PAYPAL SETTINGS' on the right.

SYSTEM CURRENCY SETTINGS:

- System Currency: USD
- Currency Position: Left
- Update System Currency button

SETUP STRIPE SETTINGS:

- Active: Yes
- Test Mode: On
- Stripe Currency: USD
- Test Secret Key: sk_test_9IMkiM6Ylkr1LCe2dJ3PgaxS
- Test Public Key: pk_test_c6VvBEbwHFduFZ62q1Qrar
- Live Secret Key: sk_live_xxxxxxxxxxxxxxxxxxxxxxx
- Live Public Key: pk_live_xxxxxxxxxxxxxxxxxxxxxxx
- Update Stripe Keys button

SETUP PAYPAL SETTINGS:

- Active: Yes
- Mode: Sandbox
- Paypal Currency: USD
- Client Id (Sandbox): AZDxjDScFpQtjWTOUtWKbyN_bDt40gqaF4eYXlewfbP4-8aqX3PiV8e1GWU6iE
- Client Id (Production): 1234
- Update Paypal Keys button

A blue callout box titled 'Heads Up!' contains the message: 'Please Make Sure That "System Currency", "Paypal Currency" and "Stripe Currency" Are Same.'

INPUT DESIGN (ADMIN)

INSTRUCTOR SETTING

INSTRUCTOR SETTINGS

Allow Public Instructor

Yes

Instructor Revenue Percentage

64 %

Admin Revenue Percentage

36 %

Update Settings

INPUT DESIGN (ADMIN)

MANAGE LANGUAGE

The interface is a wireframe for managing language phrases. It includes:

- Language List:** Shows two entries: Bengali and English. Each entry has "Edit Phrase" and "Delete Language" buttons.
- Add New Language:** A form to add a new language, with an example "Eg. Bengali" and a "Save" button.
- Add New Phrase:** A form to add a new phrase, with an example "Eg. Contamination" and a "Save" button.
- Phrase Table:** A grid showing translations between English and Bengali for phrases like "manage_language", "welcome", and "my_account". Each row has a "Edit Phrase" button.

INPUT DESIGN (ADMIN)

SMTP SETTING

SMTP SETTINGS

Protocol*

Smtp Host*

Smtp Port*

Smtp Username*

Smtp Password*

Save

INPUT DESIGN (ADMIN)

MANAGE PROFILE

Current Password

New Password

Confirm New Password

Update Password

BASIC INFO

First Name

Last Name

Email

Facebook Link

Twitter Link

LinkedIn Link

Linkedin Link

A Short Title About Yourself

A Short Title About Yourself

Biography

Biography

Photo (The Image Size Should Be Any Square Image)

Choose File

Browse

Update Profile

INPUT DESIGN (INSTRUCTOR)

CREATING COURSE

COURSE ADDING FORM

[← BACK TO COURSE LIST](#)

Basic Requirements Outcomes Pricing Media Seo Finish

Course Title *

Short Description

Description

Category *

Level

Language Made In

Check If This Course Is Top Course

COURSE ADDING FORM

[← BACK TO COURSE LIST](#)

Basic Requirements Outcomes Pricing Media Seo Finish

Requirements

COURSE ADDING FORM

← BACK TO COURSE LIST

Basic Requirements Outcomes Pricing Media Seo Finish

Outcomes

Provide Outcomes +

Provide Outcomes -

Provide Outcomes -

COURSE ADDING FORM

← BACK TO COURSE LIST

Basic Requirements Outcomes Pricing Media Seo Finish

Check If This Is A Free Course

Course Price (\$)

Enter Course Course Price

Check If This Course Has Discount

Discounted Price (\$)

This Course Has 0% Discount

COURSE ADDING FORM

← BACK TO COURSE LIST

Basic Requirements Outcomes Pricing Media Seo Finish

Meta Keywords

Enter Meta Keywords

Meta Description

Enter Meta Description

COURSE ADDING FORM

← BACK TO COURSE LIST

Basic Requirements Outcomes Pricing Media Seo Finish

Course Overview Provider: Youtube

Course Overview Url: E.g: https://www.youtube.com/watch?v=oBtf8Yglw2w

Course Thumbnail: 600X600

Course Thumbnail (600 X 600)

← →

COURSE ADDING FORM

← BACK TO COURSE LIST

Basic Requirements Outcomes Pricing Media Seo Finish

✓ Thank You !

You Are Just One Click Away

Submit

← →

INPUT DESIGN (INSTRUCTOR)

ADDING LESSON, SECTION, QUIZ IN COURSE

The image shows three overlapping modal input forms:

- Add New Quiz**:
 - Quiz Title: BUSINESS MANAGEMENT
 - Section: introduction
 - Instruction: time is important so try to give answer as possible as fast..|
 - Submit button
 - Close button
- Add New Section**:
 - Title: introduction
 - Provide A Section Name
 - Submit button
 - Close button
- Add New Lesson**:
 - Title: basic information
 - Section: introduction
 - Lesson Type: Text File
 - Attachment: intro.txt (Browse button)
 - Summary: whole course information in short form.
 - Add Lesson button
 - Close button

INPUT DESIGN (INSTRUCTOR)

PAYMENT SETTING

The screenshot displays a user interface for payment settings, divided into two main sections: **SETUP STRIPE SETTINGS** and **SETUP PAYPAL SETTINGS**.

SETUP STRIPE SETTINGS section:

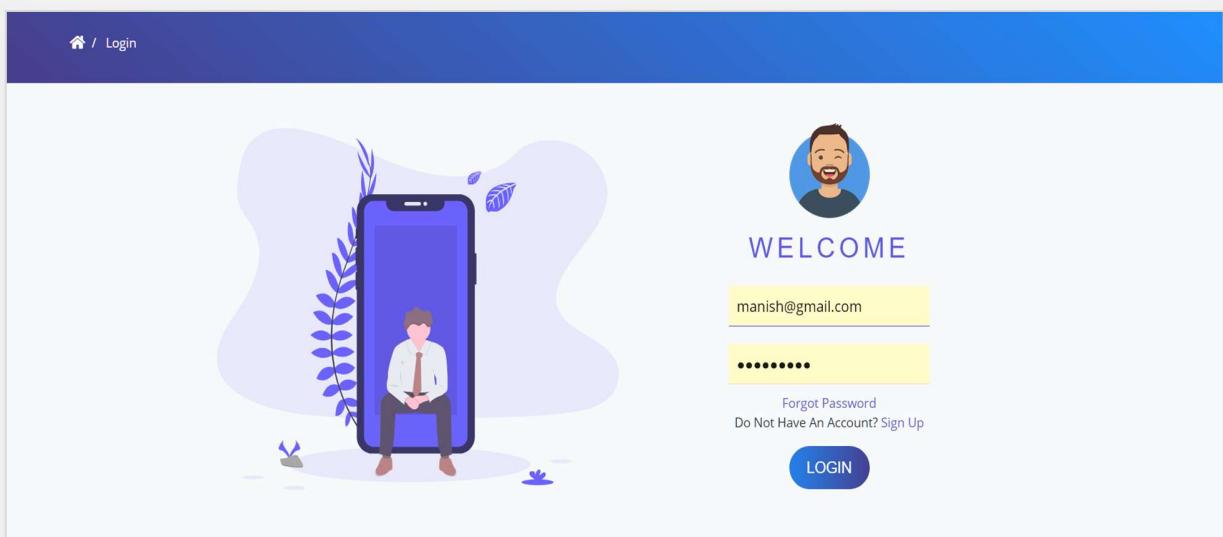
- Live Secret Key: An input field.
- Live Public Key: An input field.
- Update Stripe Keys**: A blue button.

SETUP PAYPAL SETTINGS section:

- Client Id (Production): An input field.
- Update Paypal Keys**: A blue button.

INPUT DESIGN (STUDENT)

LOGIN



INPUT DESIGN (STUDENT)

FORGET PASSWORD

The image shows a user interface for a password reset feature. On the left, there is a stylized illustration of a man in a blue shirt and dark pants, looking down at a small potted plant on a pink surface. A speech bubble above him contains a key icon. To the right, there is a teal circular icon containing a white padlock with a question mark inside it. Below the icon, the text "Reset Password" is written in a sans-serif font. Underneath the button, the email address "manish@gmail.com" is displayed in a smaller, gray font. Below the input field is a blue rectangular button with the text "RESET PASSWORD" in white. At the bottom of the page, there is a purple footer bar with the text "Get connected with us on social networks!" followed by icons for Facebook, Twitter, Google+, LinkedIn, and Instagram. To the right of these social media icons is a small square icon with a white rocket ship symbol.

Get connected with us on social networks!

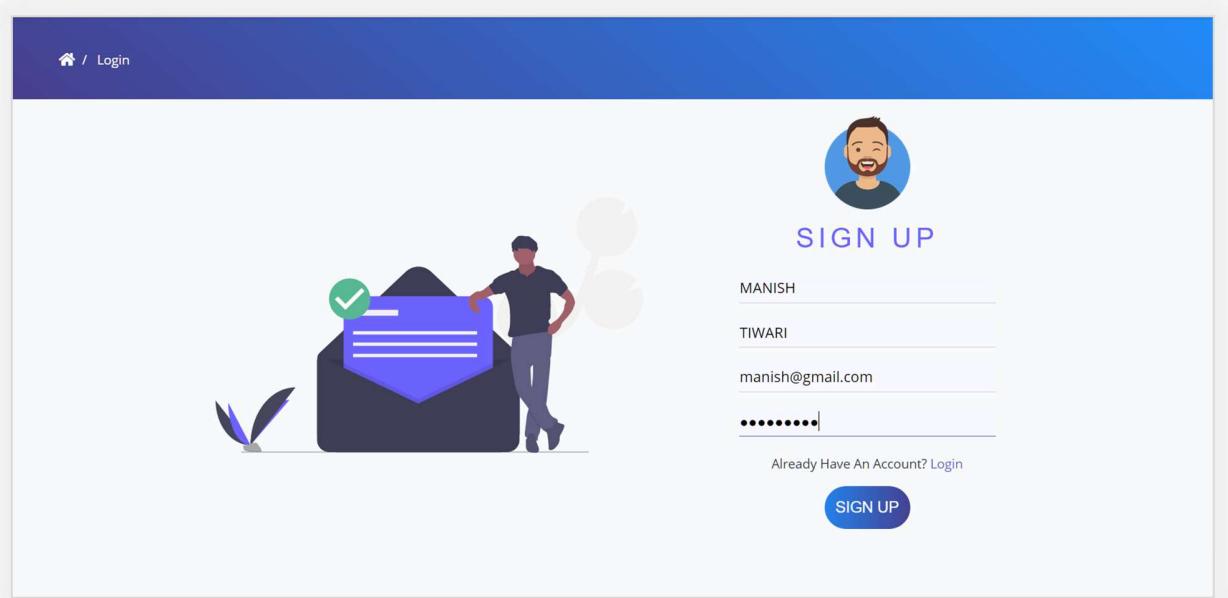
f t G+ in @

RESET PASSWORD

Want To Go Back? [Login](#)

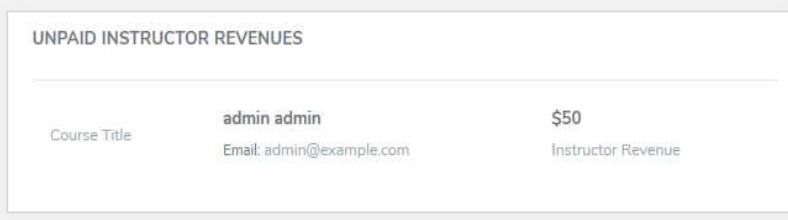
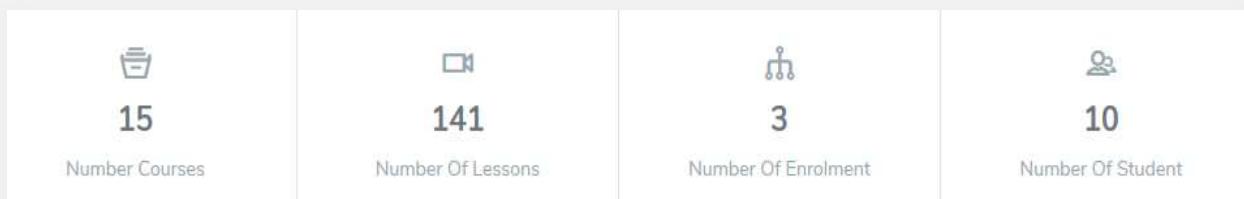
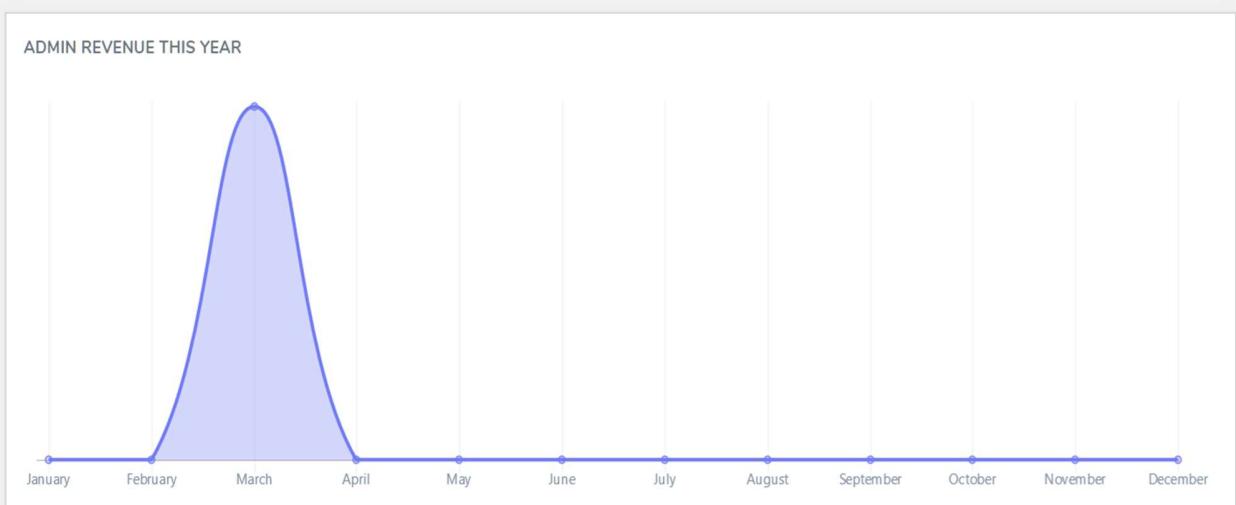
INPUT DESIGN (STUDENT)

SIGN UP



OUTPUT DESIGN (ADMIN)

DASHBOARD



104

OUTPUT DESIGN (ADMIN)

CATEGORY MANAGEMENT

The screenshot shows a user interface for managing course categories. On the left, a sidebar lists main categories: Marketing, Design, IT and Software, Business, Personal development, Music instruments, Development, Office Productivity, and All Courses. The 'Design' category is selected, indicated by a teal icon and the word 'Design' in teal. To the right of the sidebar, there is a large image of a person's hands working on a graphic design project with various tools like a tablet, keyboard, and color swatches. Below the image, the 'Graphic Design' category is displayed with a pencil icon and the text 'Graphic Design 5 Sub categories'. A list of sub-categories follows: Photoshop, Adobe Illustrator, Drawing, Logo Design, and Digital Art. At the bottom right of this panel are 'Edit' and 'Delete' buttons.

Main Category	Sub Categories
Marketing	Logo design
Design	Game design
IT and Software	3D & Animation
Business	Graphic Design
Personal development	Web Design
Music instruments	
Development	
Office Productivity	
All Courses	

Graphic Design
5 Sub categories

- Photoshop
- Adobe Illustrator
- Drawing
- Logo Design
- Digital Art

Edit Delete

OUTPUT DESIGN (ADMIN)

COURSE REPORT

 13 Active Courses	 2 Pending Courses	 5 Free Courses	 8 Paid Courses
--	--	--	---

COURSE LIST

Categories	Status	Instructor	Price
All	All	All	All

Show 25 entries Search:

#	Title	Category	Lesson & Section	Enrolled Student	Status	Price
1	Photo shop Instructor: admin admin	Logo design	Total Section: 3 Total Lesson: 12	Total Enrolment: 1		Free
2	PianoForAll Instructor: admin admin	Piano	Total Section: 4 Total Lesson: 20	Total Enrolment: 0		\$40000
3	Facebook Marketing Instructor: admin admin	Digital Marketing	Total Section: 4 Total Lesson: 9	Total Enrolment: 0		\$500000

Inform Instructor

Mail Subject

Mail Body

thank you for joining with us....
and share your knowledge.....|

Send Mail

Close

OUTPUT DESIGN (ADMIN)

STUDENT REPORT

 Student + Add Student

STUDENTS

Show entries Search:

#	Photo	Name	Email	Enrolled Courses	Actions
1		shailee lakhaniya	shailee@gmail.com		
2		Jemish Goyani	jemish187@gmail.com		
3		vrutika kachchadiya	vrutika@gmail.com	<ul style="list-style-type: none">• Photo shop• The Complete JavaScript Course 2020: Build Real Projects!	

OUTPUT DESIGN (ADMIN)

ENROLL HISTORY REPORT

ENROL HISTORIES				
Photo	User Name	Enrolled Course	Enrolment Date	Actions
	micky mouse Email: micky@gmail.com		Wed, 04-Mar-2020	
	Chota Bheem Email: laddu@gmail.com		Tue, 03-Mar-2020	
	Tom jerry Email: tomjerry@gmail.com		Tue, 03-Mar-2020	

OUTPUT DESIGN (ADMIN)

INSTRUCTOR REVENUE

INSTRUCTOR REVENUE			
Show 10 entries			
Enrolled course	Instructor	Instructor revenue	
How To Shoot B-Roll Footage wi... Enrolment date: Sun, 07-Jul-2019	Jane Doe	\$1152 Total amount: \$1800	Status Pending
Showing 1 to 1 of 1 entries			
			Pay with paypal Pay with stripe

OUTPUT DESIGN (STUDENT)

BROWSE FOR COURSES

The image shows a user interface for browsing courses. At the top right is a large preview card featuring a person working at a desk with multiple monitors displaying code. Below the card, the course title is "WordPress Theme Development with Bootstrap" by "John Doe", with a price of \$11.99 reduced to \$10. To the left of the card are several filter panels:

- Language:** Radio buttons for "All" (selected), "English" (selected), and "Bengali".
- Ratings:** Radio buttons for "All" (selected) and five star rating icons ranging from one to five stars.
- Filter:** A sidebar with a "Filter" header and three main sections:
 - Categories:** "All Category" (selected), with sub-options for Marketing, Design, and others.
 - Marketing:** "Digital Marketing", "Branding", "Product Marketing", "video & Mobile Marketing", and "Advertising".
 - Design:** "Logo design", "Game design", "3D & Animation", and "Graphic Design".
- Price:** Radio buttons for "All", "Free", and "Paid" (selected).
- Level:** Radio buttons for "All", "Beginner" (selected), "Advanced", and "Intermediate".

OUTPUT DESIGN (STUDENT)

COURSE, NOTIFICATIONS, & MY COURSE DROPODOWN MENU

The screenshot shows a student dashboard interface. At the top, there are navigation links: 'Instructor' (with a blue icon), 'My Courses' (with a blue icon), and a bell icon with a '4' notification badge. Below these are sections for 'Notifications' and 'Courses'.

Notifications:

- Daragh Walsh made an announcement: Please tick a 14 days ago
- Daragh Walsh made an announcement: Please tick a 14 days ago
- Daragh Walsh made an announcement: Please tick a 14 days ago
- Daragh Walsh made an announcement: Please tick a 14 days ago

Courses:

- Marketing > Logo design
- Design > Game design
- IT and Software > 3D & Animation
- Business > Graphic Design
- Personal development > Web Design
- Music instruments >

User Profile:

MANISH TIWARI
manish@gmail.com

My Courses:

- Mark All as Read
- My Courses
- My Wishlist
- My Messages
- Purchase History
- User Profile

Log Out

OUTPUT DESIGN (STUDENT)

COURSE



[Preview This Course](#)

Free

[Get Enrolled](#)

Includes:

- 00:53:15 Hours On Demand Videos
- 12 Lessons
- Full Lifetime Access
- Access On Mobile And Tv

About The Instructor



Dianna Bennett
I am a superhero
This is my bio
[- View Less](#)

7 Reviews
6 Students
7 Courses

Student Feedback

4
Average Rating

0%
0%
0%
100%
0%

product marketing manager

Become a product marketing manager

ADVANCED  0 (0 Ratings) 2 Students Enrolled

Created By Tom jerry Last Updated Mon, 15-Jun-2020 English

What Will I Learn?

✓ Product Management	✓ Product Promotion
✓ Potentially get hired as a product marketing manager	✓ How To Launch A New Product

Curriculum For This Course

	12 Lessons	00:15:54 Hours
- Before starting the course		00:15:54 Hours
○ Course Overview		00:15:54
○ First Thing to Do		
+ INTRO to Product Management	5 Lessons	00:00:00 Hours
+ Customer Development	2 Lessons	00:00:00 Hours
+ Working with People and Stakeholders	3 Lessons	00:00:00 Hours

Requirements

- Some experience in Product Marketing or Product Management

Description

Product marketing strategy: Marketing new Product: Product to market: Product Promotion: New

[+ View More](#)

Other Related Courses

00:53:15 Hours	Photo shop	 0	 1	Free
Updated Sun, 15-Mar-2020				

OUTPUT DESIGN (STUDENT)

COURSE PREVIEW, LESSON & ATTACHMENTS



The image shows a course preview for "product marketing manager". On the left, there's a sidebar with four sections: "section 1 Before starting the course" (with a video thumbnail for "Course Overview" at 00:15:54), "section 2 INTRO to Product Management" (with a thumbnail for "First Thing to Do"), "section 3 Customer Development", and "section 4 Working with People and Stakeholders". To the right is a video player showing a smiling man in a grey sweater. The title "PRODUCT MARKETING 101" is displayed above the video, with "Google" written below it in its signature multi-colored font. A red play button icon is visible on the video player. At the bottom of the video player is a control bar with a play button, a progress bar showing "-15:54", volume and settings icons, and a note field containing "Note:".



The image shows a lesson preview titled "Course Preview: product marketing manager". It features a slide with the heading "Highlight the Right Points" and three numbered points: 1. "Customers don't understand your technical approach" (with a note: "More Effort on How and Why for your Technical Approach More de-positioning of other approaches"), 2. "Customers don't have a budget for our solution" (with a note: "Align use case to an existing budget item"), and 3. "Customers may not even understand they have a problem" (with a note: "Articulate the problem in their terms"). To the right of the slide is a "Download First Thing to Do" button. Below the slide is a video player with a play button, a progress bar showing "27:12", volume and settings icons, and a note field.

OUTPUT DESIGN (STUDENT)

QUIZ

Question 1 : What is Marketing ?

Skill

art

A & B Both

Submit & Next

Quiz Title : **Basic information**
Number Of Questions : 4
Get Started

Review the course materials to expand your learning.
You got 2 out of 4 correct.

✓ What is Marketing ?
- A & B Both

Submitted Answers: [A & B Both]

✗ How many application of product marketing manager ?
- 5

Submitted Answers: [7]

✓ What is full form of P.M.M. ?
- Product Marketing manager

Submitted Answers: [Product Marketing manager]

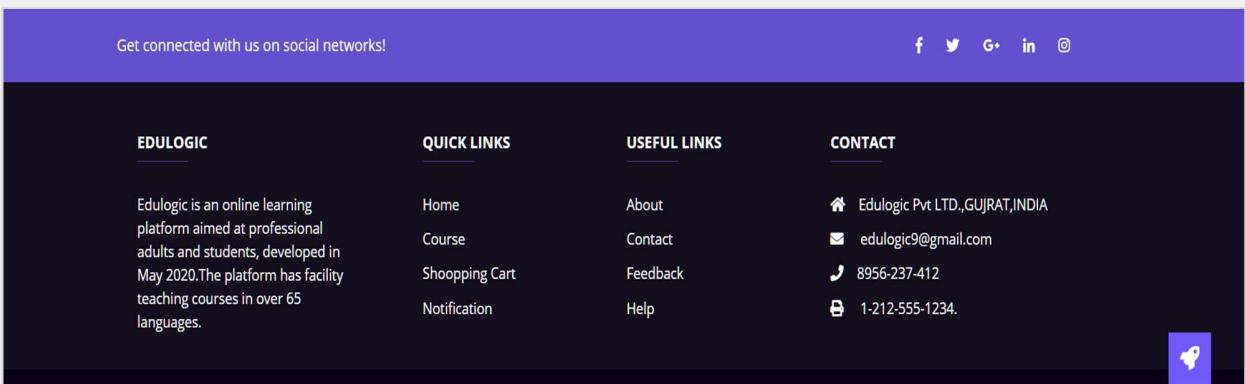
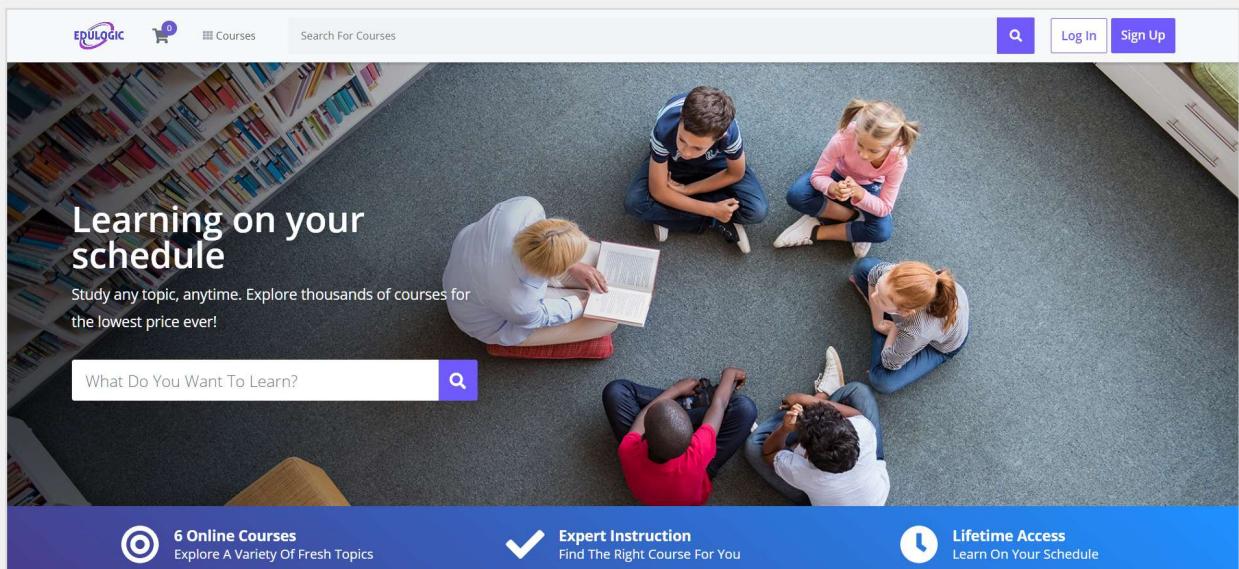
✗ How many components Of P.M.M. ?
- 4

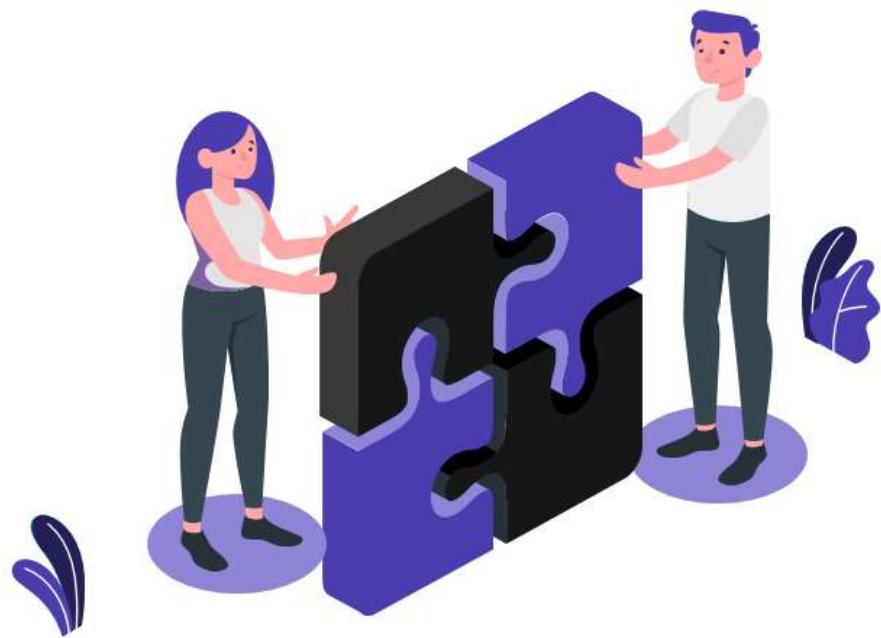
Submitted Answers: [3]

Take Again

OUTPUT DESIGN (STUDENT)

COVER PAGE & FOOTER SECTION





07

SOFTWARE TESTING

SOFTWARE TESTING

Software testing can be stated as the process of verifying and validating that a software or application is bug free, meets the technical requirements as guided by its design and development and meets the user requirements effectively and efficiently with handling all the exceptional and boundary cases. The process of software testing aims not only at finding faults in the existing software but also at finding measures to improve the software in terms of efficiency, accuracy and usability. It mainly aims at measuring specification, functionality and performance of a software program or application.

SOFTWARE TESTING CAN BE DIVIDED INTO TWO STEPS:

1. **Verification:** it refers to the set of tasks that ensure that software correctly implements a specific function.
2. **Validation:** it refers to a different set of tasks that ensure that the software that has been built is traceable to customer requirements.

Verification: “Are we building the product right?”

Validation: “Are we building the right product?”

What are different types of software testing?

Software Testing can be broadly classified into two types:

1. **Manual Testing:** Manual testing includes testing software manually, i.e., without using any automated tool or any script. In this type, the tester takes over the role of an end-user and tests the software to identify any unexpected behavior or bug. There are different stages for manual testing such as unit testing, integration testing, system testing, and user acceptance testing. Testers use test plans, test cases, or test scenarios to test software to ensure the completeness of testing. Manual testing also includes exploratory testing, as testers explore the software to identify errors in it.
2. **Automation Testing:** Automation testing, which is also known as Test Automation, is when the tester writes scripts and uses software to test the product.

This process involves automation of a manual process. Automation testing is used to Re-run the test scenarios that were performed manually, quickly, and repeatedly. Apart from regression testing, automation testing is also used to test the application from load, performance, and stress point of view. It increases the test coverage, improves accuracy, and saves time and money in comparison to manual testing.

What are different techniques of Software Testing?

Software techniques can be majorly classified into two categories:

1. **Black Box Testing:** The technique of testing in which the tester doesn't have access to the source code of the software and is conducted at the software interface without concerning with the internal logical structure of the software is known as black box testing.
2. **White-Box Testing:** The technique of testing in which the tester is aware of the internal workings of the product, have access to its source code and is conducted by making sure that all internal operations are performed according to the specifications is known as white box testing.

What are different types of software testing?

1. **Unit Testing:** A level of the software testing process where individual components / units components of a software/system are tested. The purpose is to validate that each unit of the software performs as designed.
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.
3. **System Testing:** A level of the software testing process where a complete, integrated system/software is tested. The purpose of this test is to evaluate the system's compliance with the specified requirements.
4. **Acceptance Testing:** A level of the software testing process where a system is tested for acceptability. The purpose of this test is to evaluate the system's compliance with the business requirements and assess whether it is acceptable for delivery.

5. Regression Testing: Every time new module is added leads to changes in program. This type of testing make sure that whole component works properly even after adding components to the complete program.

6. Smoke Testing: This test is done to make sure that software under testing is ready or stable for further testing. It is called smoke test as testing initial pass is done to check if it did not catch the fire or smoked in the initial switch on.

7. Alpha Testing

This is a type of validation testing. It is a type of acceptance testing which is done before the product is released to customers. It is typically done by QA people.

8. Beta Testing

The beta test is conducted at one or more customer sites by the end-user of the software. This version is released for the limited number of users for testing in real time environment.

9. Stress Testing

In this we give unfavorable conditions to the system and check how they perform in those conditions.

10. Performance Testing

It is designed to test the run-time performance of software within the context of an integrated system. It is used to test speed and effectiveness of program.

Test Cases

Test Case Id	Test Scenario	Test Procedure	Expected Results	Pass or Fail
01	Check for SQL injection attacks.	We will input the command having(;) as a predecessor at all input controls where user can give any input to system also uses some special character with inputted data to check that db is safe from SQL injection attacks.	System is safe from all kind of sql injection attack.	Pass
02	Page crash should not reveal application or server info. The error page should be displayed for this.	We will manipulate the domain and also make changes at hosting server so website and pages can crash	Error page will be displayed on page crash	Pass
03	Check the database query execution time.	We will run queries on db server, queries which are generally going execute like browsing for course with various filter and also modifying data for different modules	Average query execution time will be around 0.005 sec	Pass
04	Check if the page load time is within the acceptable range.	We have checked the page load time of website using online tools available like Google pagespeed Insights & Gtmetrix.	Page will be get loaded within 3 sec	Pass
05	Pagination should be enabled when there are more results than the default result count per page	We will add data into the system and fetched those data on frontend in table or gridview.	Pagination will be enabled	Pass

06	Check if all the search parameters are used to fetch data	We will input different data in search controls and also apply filters to those data to search for data then we will check whether fetched data is correct & give output according to applied search criteria.	All search parameters are working properly and giving correct output	Pass
07	Check resulted table data to know if the date range/filter is properly working.	We will check for date fields in resulted table and also apply date filter on resulted data to check date filtration is working properly or not	All date range filter is working properly	Pass
08	Responsive website in all common scenarios with clear visibility of data.	Using browser we will check different website pages at different resolution to check website responsiveness	Website will be responsive in tablet, mobile, laptop and desktop view	Pass
09	Ascending and descending sorting functionality should work for columns supported by data sorting.	We will click on up and down arrows button available on headers of resulted table in order to sort the data either in ascending or descending order	Every data in resulted table can be sort out in ascending or descending	Pass
10	Proper validation message should be displayed for all invalid data enter as input	We will input different wrong data on different modules to check whether proper message is displaying to user or not at the time of entering wrong data	Proper message is displayed to user according to entered input	Pass
11	The user should be able to filter results using all parameters on the page.	We will check different filtration parameters available on different modules to filter results	User will be able to filter results	Pass

12	Check if the correct fields are highlighted in case of errors.	We will check the different fields on different errors like validation errors and ensure correct field is highlighted	All Fields will be get properly highlighted in case of any error	Fail
13	Information filled by users should remain intact when there is an error message on page submits. The user should be able to submit the form again by correcting the errors.	We will generate a validation error and check whether the values in the fields are still intact with controllers or not	Information filled by users will be remained intact when there is an error message on page submits.	Fail
14	Any field doesn't accept any data or file which is not recommended or not instructed by the system	We will check different fields which accept any kind of file from user and will try to upload different file which is not recommended by the system	Expected system will generate error message	Fail
15	Check the page load on slow connections.	We will use online tools to check page load on slow connection using Gtmetrix tool.	Page will be get loaded within 3 to 4 seconds	Fail
16	Passwords and other sensitive fields should be masked while typing.	We will start entering input on sensitive fields like password field and fields which accept payment account details.	Passwords and other sensitive fields should be masked while typing	Pass
17	Test unauthorized application access by manipulating variable values in the browser address bar.	We will manipulate the values of variable present on browser address bar	Expected system will display error page	Fail
18	Email addresses should be validated before sending emails.	We will send emails to user	Email address will be validated before sending	Pass

08



Limitations & Future Scope of Enhancements

LIMITATIONS AND FUTURE SCOPE OF ENHANCEMENTS

1. Limitations

- Not Much Options Available For User To Sign up, Login & Recover Password
- Required High Speed Internet Connection To Play Video Seamlessly
- Database Backup Feature Not Available on System Crash
- Not Much Payment Options Available For User
- Easy To Breach Security of The System
- Live Class Feature Not Available
- No Real Time Support

2. Future Scope of Enhancements

2.1 Future Scope of E-learning

The rapid increase in Internet connectivity in the last few years has been an important catalyst for the growth of e-learning in India. The story is not limited to schools alone. Indian companies are adopting e-learning platforms at a rapid pace as continuous employee learning has become a strategic necessity. Fuelling this growth will be India's education system, already one of the largest in the world with a network of more than one million schools and 18,000 higher education institutions. More than half of the country's 1.2 billion population falls in the target market for education and related services.

2.2 Future Scope of Project.

The project has a very vast scope in future. The project can be run solo or even can be used by big organization. Project can be updated in near future as and when requirement for the same arises, as it is very flexible in terms of expansion. With the proposed software of database Admin is ready and fully functional even the user is now able to manage and run system and hence learning can be done in a much better, accurate and error free manner.

2.3 Future Enhancements in Project.

- More Options Available For User To Sign up, Login & Recover Password
- No High Speed Internet Connection Required To Play Video Seamlessly
- More Payment Options Will Be Available For User
- It Will Be Not Easy To Breach System Security
- Real Time Support To Student & Instructor
- Database Backup Feature Available
- Live Class Feature Available
- Video Conferencing
- Course Tracking
- Gamification

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