

DESIGN AND DEVELOPMENT OF LEARN EASY

A

MINOR PROJECT-II REPORT

Submitted in partial fulfillment of the requirements

for the degree of

BACHELOR OF TECHNOLOGY

in

COMPUTER SCIENCE & ENGINEERING

By

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Jun-2022

CERTIFICATE

I hereby certify that the work which is being presented in the B.Tech. Minor Project-I Report entitled **LEARN EASY**, in partial fulfilment of the requirements for the award of the degree of **Bachelor of Technology** in **Computer Science & Engineering** and submitted to the Department of Computer Science & Engineering, *Sagar Institute of Science & Technology (SISTec)*, Bhopal (M.P.) is an authentic record of my own work carried out during the period from July-2021 to Dec-2021 under the supervision of **Komal Tahiliani (Associate Professor)**. The content presented in this project has not been submitted by me for the award of any other degree elsewhere.

Signature

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

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ABSTRACT

The aim of this project is to create a web application which provides students or users the good content for their learning so they can grow in their life. Technical courses related to computer science and engineering branch are available in the website. Best courses filtered from many good learning platforms like geeksforgeeks, coding ninjas are available here.

The main motive of this project is to help students so that they don't need to waste their time on searching good courses, they can easily access our website from the browser using phone or laptop.

The courses are selected by doing research on the courses like what's the difficulty level of courses, what courses can be easily understood, which course can provide certification, which might help in getting placements and internships. The best part of this project is about it not only providing resources from various learning platforms, but also it gives the users or learners to can get your course as per their choice if it's not available on the website through contact.

ACKNOWLEDGEMENT

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LIST OF ABBREVIATIONS

ACRONYM	FULL FORM
API	Application Programming Interface
AOS	Animate On Scroll
HTML	Hypertext Markup Language
CSS	Cascading Style Sheet
JS	JavaScript
ES6	ECMAScript 6
NPM	Node Package Module
DBMS	Database Management System
MS VS Code	Microsoft Visual Studio Code
ER Diagram	Entity Relationship Diagram
UML	Unified Modelling Language
SRS	Software Requirements Specification
GB	Gigabyte
GHz	Gigahertz
CLI	Command Line Interface
CD	Class Diagram

CHAPTER 1

INTRODUCTION

CHAPTER-1

INTRODUCTION

During college hours, time is limited for both faculties and students. Due to this, interaction between students and teachers remain less and even after going home some doubts of students remain unsolved. Online learning websites provide best courses for students so that they can solve remaining doubts and even explore new concepts by going through their courses. This project is based on the solution of the problem of students spending much of their time in finding best courses and getting less time to read from the courses available on the internet. LEARN EASY is a web application which filters all the courses available on the internet and only provides the best courses which has higher rating, good reviews be it free or paid. Courses that give certificate after completing the course are also available in LEARN EASY.

1.1 ABOUT PROJECT

- LEARN EASY is a web application portal.
- Following are the modules included in the project:
 - Admin:
 - Admin is the core module. It is responsible for adding and deleting courses of an organization.
 - Admin can also view the users from the admin panel.
 - Admin can delete the course.
 - Users:
 - User is responsible for viewing courses, review the courses,
 - User can give suggestion to the admin about any relevant course other than the course provided in the website.

1.2 PROJECT OBJECTIVES

The main goal of this project is to provide students best courses available on the internet searching and filtering from different websites to a single website that is

LEARN EASY by this web application most of the time of student would be saved and getting certification of courses will help them in future for getting placed in MNC's.

1.3 Module Hierarchy

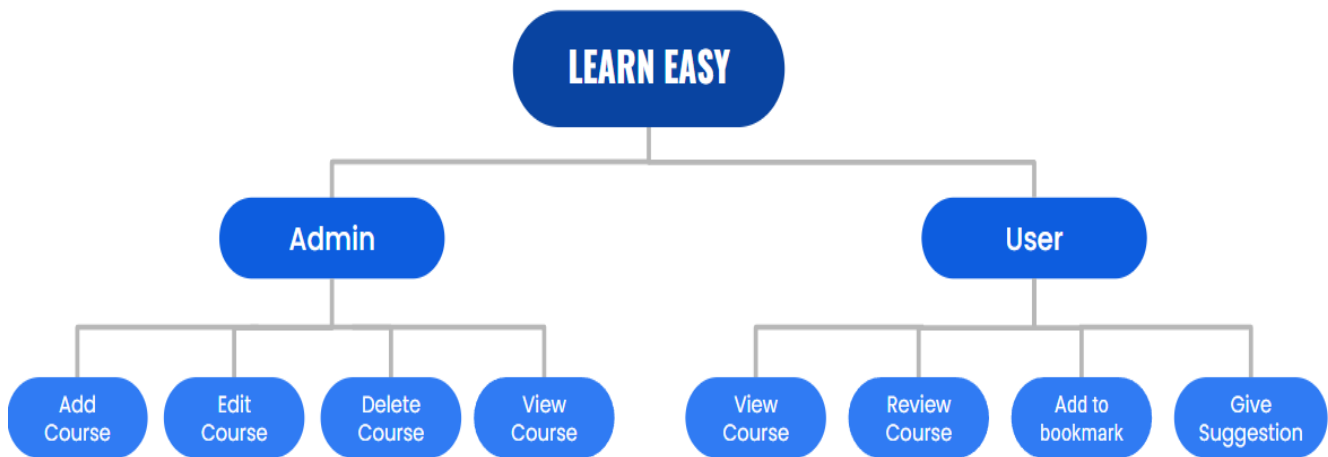


Fig 1.1 Module Hierarchy

1.4 Interface

- User Interfaces
 - Browser chrome latest version (supports HTML & JS).
- Hardware Interface
 - Windows

1.5 Design and Implementation Constraints

- User must have their correct username and password to enter into their online accounts to perform any action.
- User can access from any computer or laptop that fulfill the software and hardware requirement with internet connectivity.
- MongoDB Server will be used as NOSQL engine and database.

CHAPTER 2

SOFTWARE &

HARDWARE

REQUIREMENTS

CHAPTER-2

SOFTWARE AND HARDWARE REQUIREMENTS

2.1 Software Requirement

2.1.1 For Developers:

- IDE
 - MS VS Code (Microsoft Visual Studio Code - latest version)
- Programming Languages (HTML, CSS and JS)
- NodeJS (for Back-End)
- MongoDB (Database)
- Google Chrome for testing purpose

2.1.2 For End-User:

- Web Browser (latest browser like chrome, Mozilla Firefox, etc.)
- Internet Connectivity

2.2 Hardware Requirement

2.2.1 Processor: - Intel(R) Core™ i3-5005U CPU @ 2.00GHz

2.2.2 Minimum Ram: - 2.00GB

CHAPTER 3

PROBLEM

DESCRIPTION

CHAPTER-3

PROBLEM DESCRIPTION

World is full with things that are useful as well as not useful. Same is applicable on the world wide web that is internet. In today's world time is the most precious thing, time that goes away never comes back and also some things that are very important in life has time bound attached to it that implies things need to be done within a time limit. Same is the situation of students in today's world students spend most of their time in searching the best thing for themselves from which they can attain knowledge in a most proficient way they go through thousands of recorded lectures for finding what is best for them wasting their time on searching things rather than spending time on studies. They need someone who can provide them the best course and best guidance this can only be done by the people who have gone through the same problems in their school and college time person with experience of problems faced by students in the 21st century.

They need people, technology that can enhance a student's personality by gaining knowledge academic wise as well as non-academic wise. Directly providing them the best course would save their lot of time and the time they would have spent on searching the good courses would be utilized in reading the courses and studying the courses. Problem of students is that they spend most of their time in thinking what to study rather than deciding that I would study this particular course and that's it.

CHAPTER 4

LITERATURE

SURVEY

CHAPTER-4

LITERATURE SURVEY

Many online learning platforms are available on the internet that have their own recorded video lectures as well as their own teachers that take online courses it is not possible that a single learning platform might have the best courses for all the subjects some might have good videos on the topic web development and some might have good videos lectures on the topic android development. These online learning platforms don't merge into each other as they want to grow up individually and they maintain the competition between themselves to be the best and be the platform which has the more users. Coding ninjas, Udemy, Coursera and geeksforgeeks these are the websites that have the best courses but not necessary that the one of the websites might have all best courses for all the subjects.

The idea of LEARN EASY website came from this all websites and to make it bit different we thought of adding all the best courses from different websites to this website so that a student doesn't need to spend their time on searching courses they can get all the best courses in LEARN EASY website. These filtration and searching are done by the people who are experts in their subjects and can easily get to the outcome of which course would be easy to understand for the students. Paid courses of reasonable price are also available they can get the link of the courses.

CHAPTER 5

SOFTWARE

REQUIREMENTS

SPECIFICATIONS

CHAPTER-5

SOFTWARE REQUIREMENTS SPECIFICATIONS

5.1 FUNCTIONAL REQUIREMENTS

5.1.1 Admin Requirements:

- 5.1.1.1 Admin authentication (email, password)
- 5.1.1.2 See details of users (user's name OR user's email)
- 5.1.1.3 Add and update contents
- 5.1.1.4 Delete any content

5.1.2 User Requirements:

- 5.1.2.1 User authentication (email, password)
- 5.1.2.2 Change password (register email ID)
- 5.1.2.3 Create account
- 5.1.2.4 Bookmark content

5.1.3 Registration:

5.1.3.1 Admin registration

- i. Email
- ii. Password

5.1.3.2 User registration

- i. Name
- ii. Email
- iii. Password

The input, output and description of all these functional requirements are describes below. which describe the all the information related to that particular function and describe that how the function will work what will be input takes than according to their function which type of output will be generate.

5.1.3 Registration:

5.1.3.1 Admin Registration

Input – Email, password

Output – Either Registration successful or Registration failed.

Description – This function is used to register the admin and gives privilege of all the admin Rights. This function will take personal information such as name and password.

5.1.3.2 User Registration

Input – Name, Email Id and Password

Output - Either Registration successful or Registration failed.

Description – Through this feature the user will be able to register and take advantages of all the feature of software. This function will ask user to provide their personal details such as name and Email Id. Also, user have to create password.

5.1.1 Admin Requirement:

5.1.1.1 Admin Authentication

Input – Email, Password

Output – Admin either login successfully or failed.

Description – This function is used to authorize the admin by asking him/her their email and password. This function will check the email and password provided by admin if the email and password will be matched as they are provided at the time of registration then the admin will login successfully otherwise it displayed login failed.

5.1.1.2 See details of any user

Description – This function will make the admin to see the details of any registered user accounts.

5.1.1.3 Add contents

Description – This function will add the contents of pages.

5.1.1.4 Delete any content

Description – This function deletes the content after getting conformation.

5.1.2 User Requirements:**5.1.2.1 User Authentication**

Input – Email, password

Output – Login successful or login failed.

Description – This function will authenticate the user by checking his email and password provided by user for login from database that is saved at the time of registration. If the email and password are matched, then the user will login successfully otherwise it will display wrong email and password.

5.1.2.2 Create account

Input – Name, Email Id and password

Output – Successfully created or invalid formats

Description – This function will let the user to create an account by entering their email and password. If the email and password are in proper format, then it successfully created the user account.

5.1.2.3 Change Password

Input – Register new password.

Output – Change the login password.

Description – This function is used to change the user login password. Take input such as register email ID, after that it will check whether user is valid user or not. After that confirmation password will change

5.1.2.4 Bookmark content

Input – bookmark the content.

Output – Successfully bookmarked.

Description – This function is used to bookmark any content of our website. User should be logged in to use this function otherwise he will not be able to bookmark any content. Registered users will only have bookmark authorization.

5.2 NON-FUNCTIONAL REQUIREMENTS

In systems engineering and requirements engineering, a non-functional requirement is a requirement that specifies criteria that can be used to judge the operation of a system, rather than specific behaviors. They are contrasted with functional requirements that define specific behavior or functions.

The non-functional requirements of LEARN EASY are as:

- 5.2.1 Security
- 5.2.2 Reliability
- 5.2.3 Availability
- 5.2.4 Maintainability
- 5.2.5 Support

Each non-functional requirement is described below:

5.2.1 Security

The system uses SSL (secured socket layer) in all transactions that include any confidential customer information. The system must automatically log out all customers after a period of inactivity. The system should not leave any cookies on the customer's computer containing the user's password. The system's back-end servers shall only be accessible to authenticated management.

5.2.2 Reliability

The reliability of the overall project depends on the reliability of the separate components. The main pillar of reliability of the system is the backup of the database which is continuously maintained and updated to reflect the most recent changes. Also, the system will be functioning inside a container. Thus, the overall stability of the system depends on the stability of container and its underlying operating system.

5.2.3 Availability

The system should be available at all times, meaning the user can access it using a web browser, only restricted by the down time of the server on which the system runs. Backups of the database should be retrieved from the server and saved by the Organizer. Then the service will be restarted. It means 24 x 7 availability.

5.2.4 Maintainability

A commercial database is used for maintaining the database and the application server takes care of the site. In case of a failure, a re-initialization of the project will be done. Also, the software design is being done with modularity in mind so that maintainability can be done efficiently.

5.2.5 Supportability

The code and supporting modules of the system will be well documented and easy to understand. Online User Documentation and Help System Requirements.

CHAPTER 6

SOFTWARE

DESIGN

CHAPTER 6

SOFTWARE DESIGN

6.1 Table Structure

Table 6.1.1: Admin Table

ATTRIBUTE	DATATYPE
id	alphanumeric
name	string
email	string
password	string

Table 6.1.2: User Table

ATTRIBUTE	DATATYPE
Id	alphanumeric
name	string
email	string
password	string
bookmarks	object
feedbacks	object

Table 6.1.3: Course Table

ATTRIBUTE	DATATYPE
id	alphanumeric
title	string
platform	string
type	string
price	string
description	string
level	string
image	file
ratings	object

Table 6.1.4: Category Table

ATTRIBUTE	DATATYPE
id	alphanumeric
name	string
courses	object

Table 6.1.5: Feedback Table

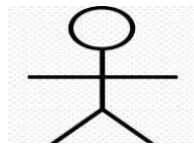
ATTRIBUTE	DATATYPE
id	alphanumeric
rating	number
review	string

6.2 Use Case Diagram

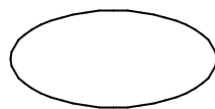
6.2.1 Description

Use Case diagram is the graphical representation that specifies the functions or activities that the external user performs. In RSMS, it specifies the user functionalities in a graphical manner.

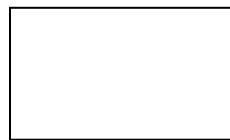
6.2.2 Notation



1: - It represents the actors that are the end users who will use the system.



2: - It represents the functionalities/activities of the system.



3: - It represents the boundary of the system that is the complete environment inside which the system works.

6.2.3 Actors

1) Admin:

The admin will interact with the system once after registration in the system and also responsible for the registration of other actors i.e User.

2) User:

The user will interact with the system once after registration in the system.

6.2.4 Use Case

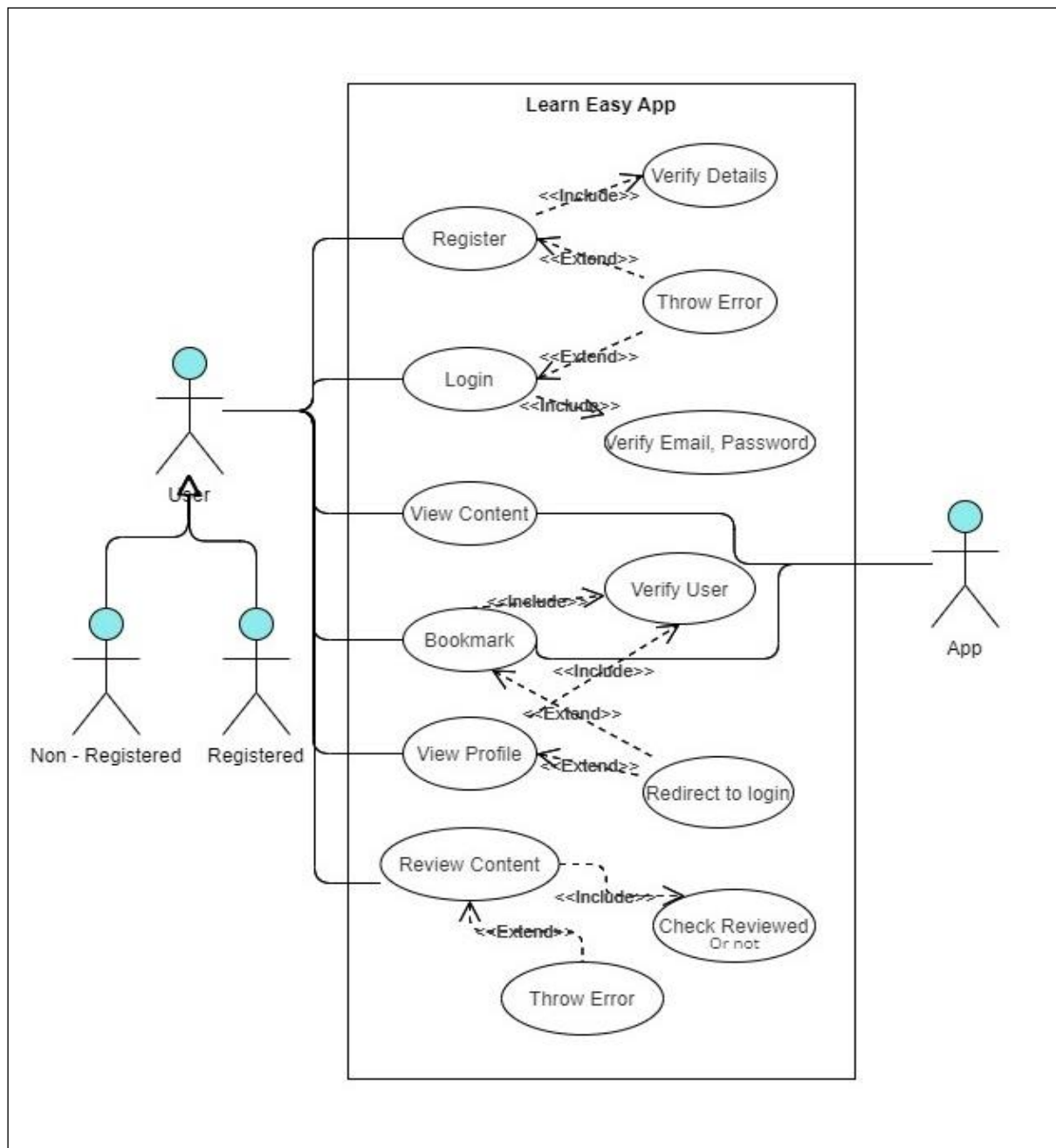


Fig. 6.1: Use-case diagram

6.4 ER Diagram

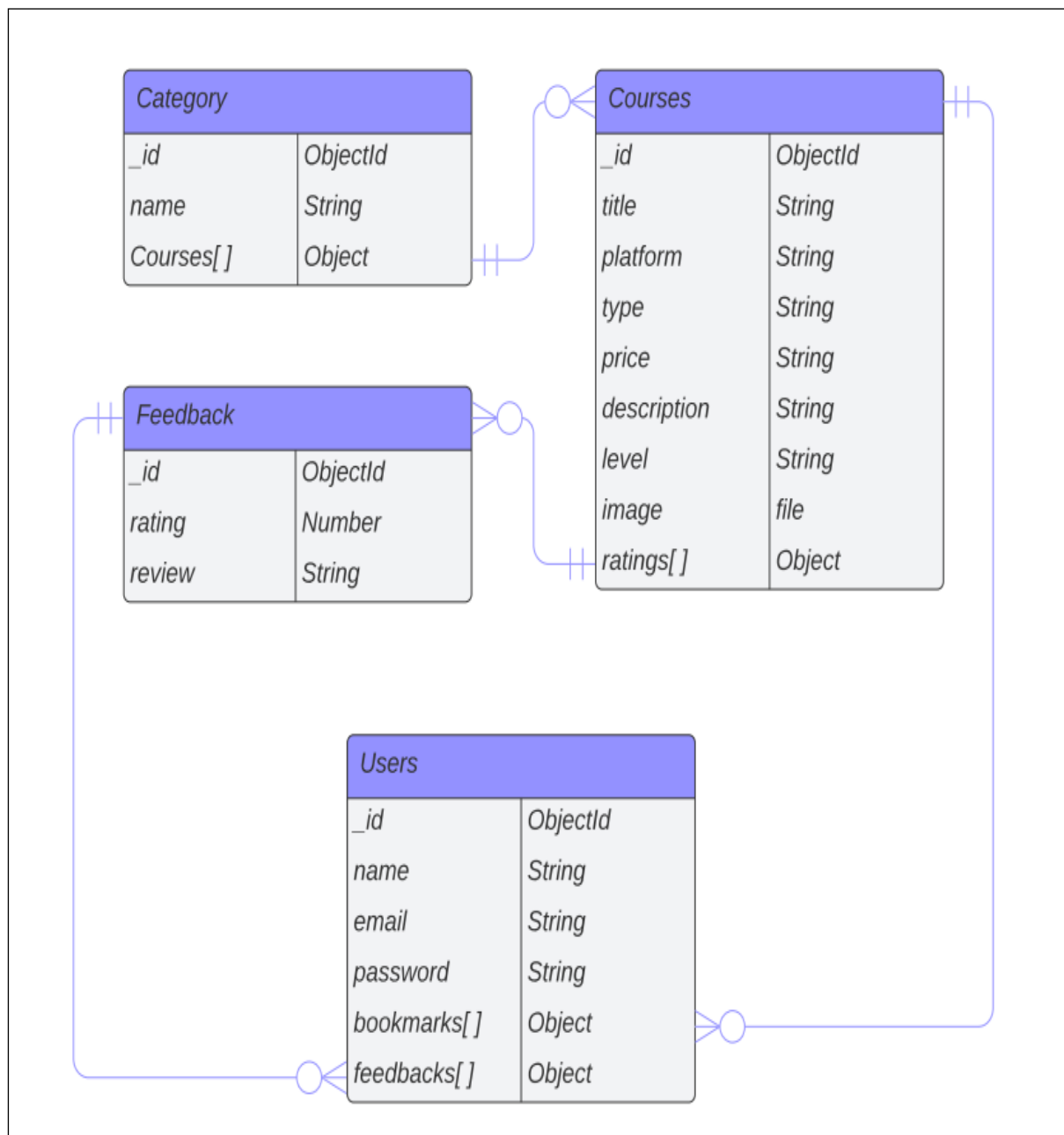


Fig. 6.2: ER Diagram

6.5 REST API End-point Diagram

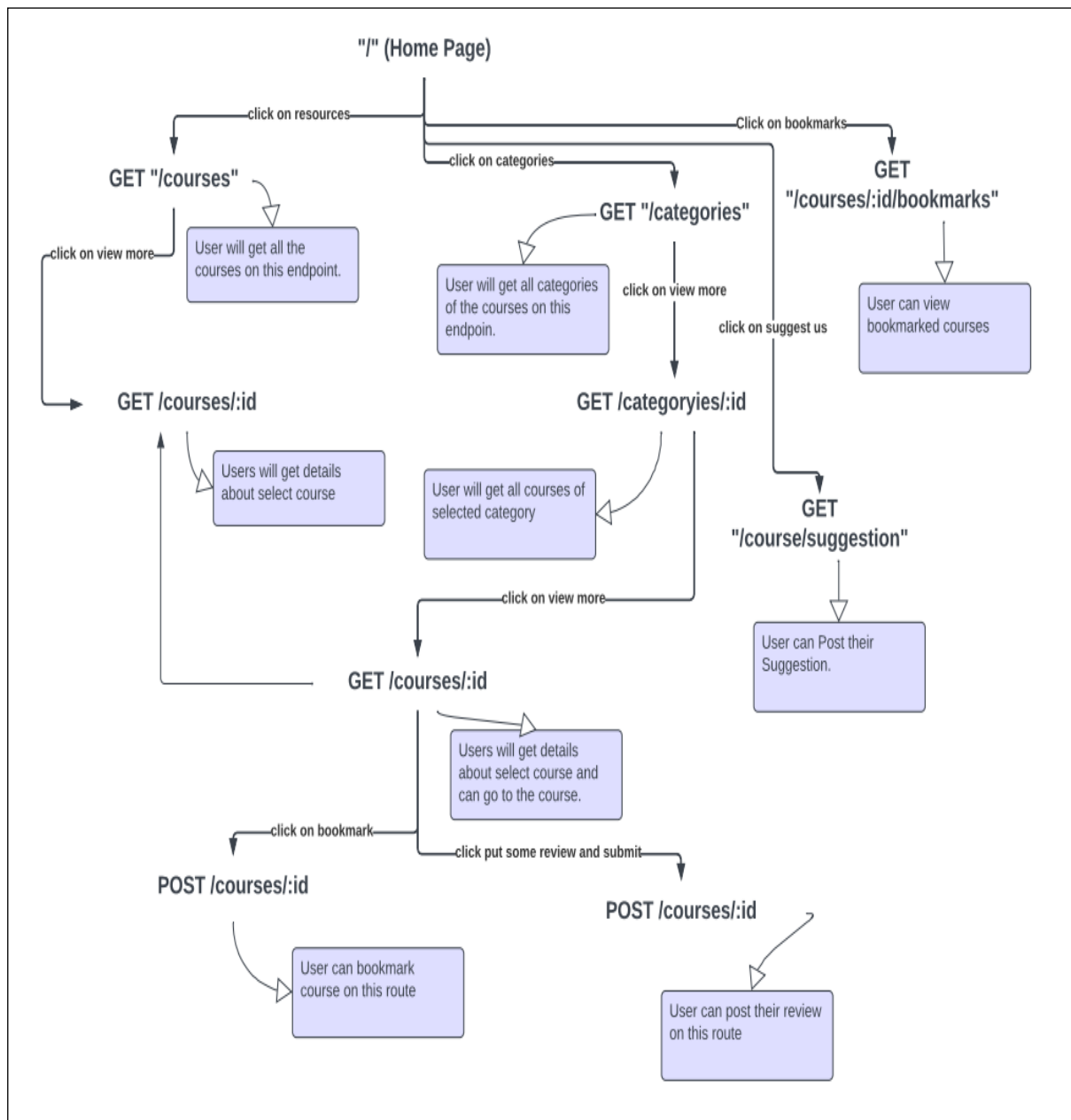


Fig. 6.3: End-point Diagram

CHAPTER 7

OUTPUT

SCREENS

CHAPTER 7

OUTPUT SCREENS

7.1 Home Pages

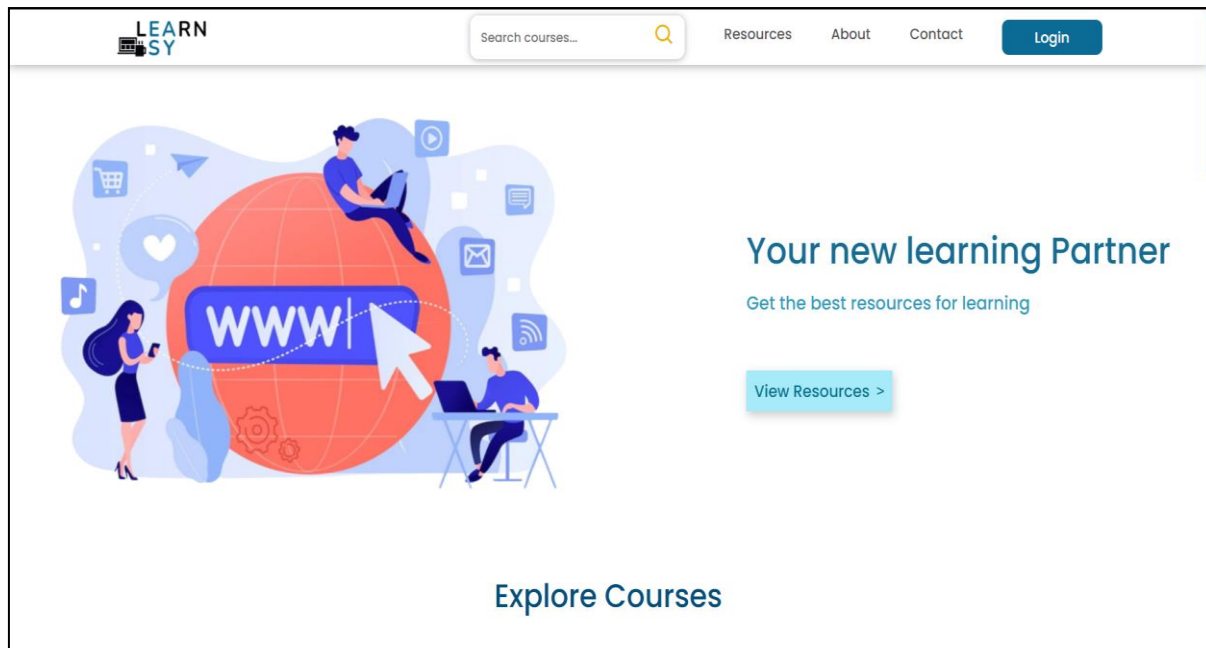


Fig. 7.1: Home page header

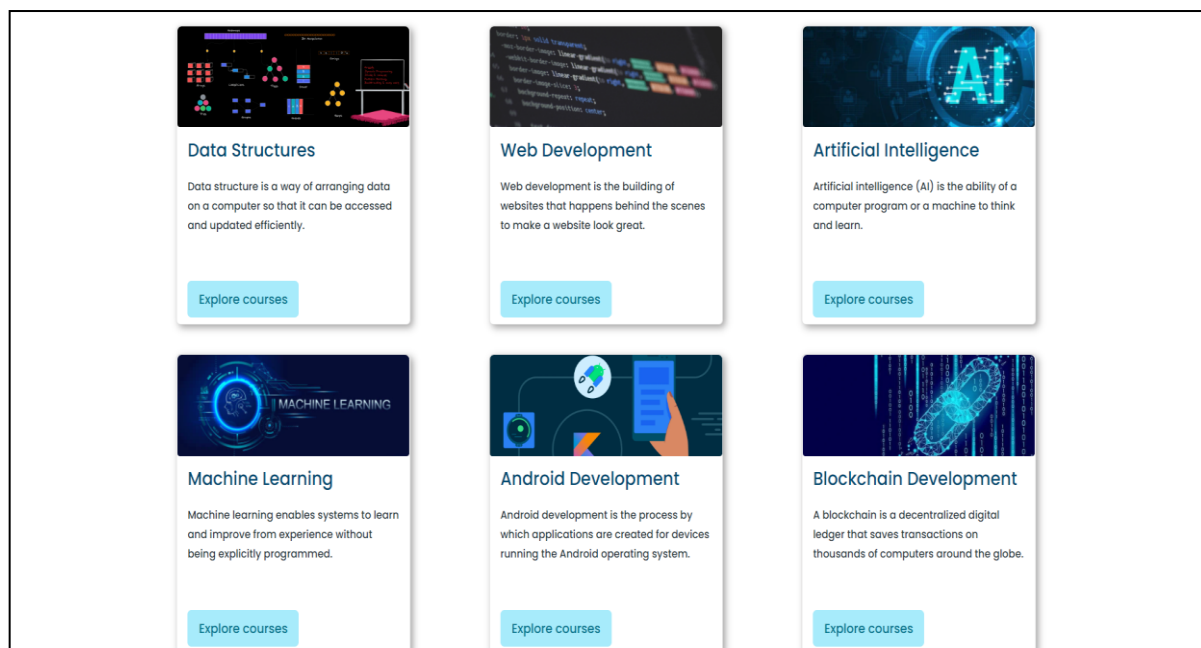


Fig. 7.2: Home page courses part

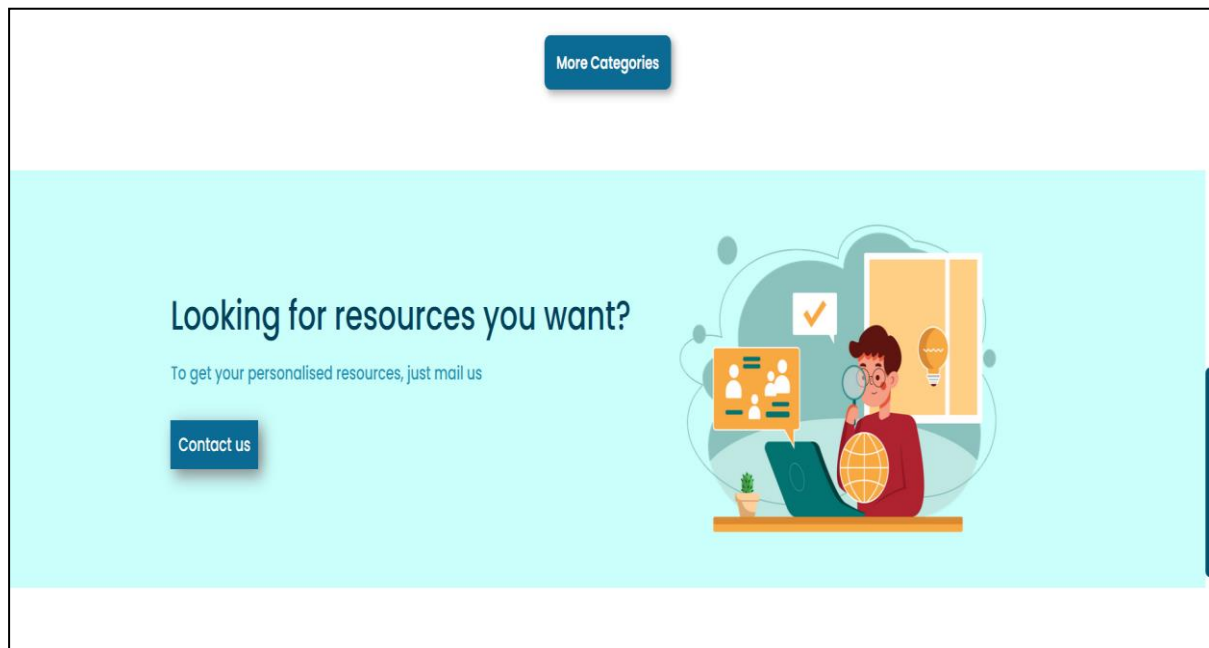


Fig. 7.3: Home page contact part

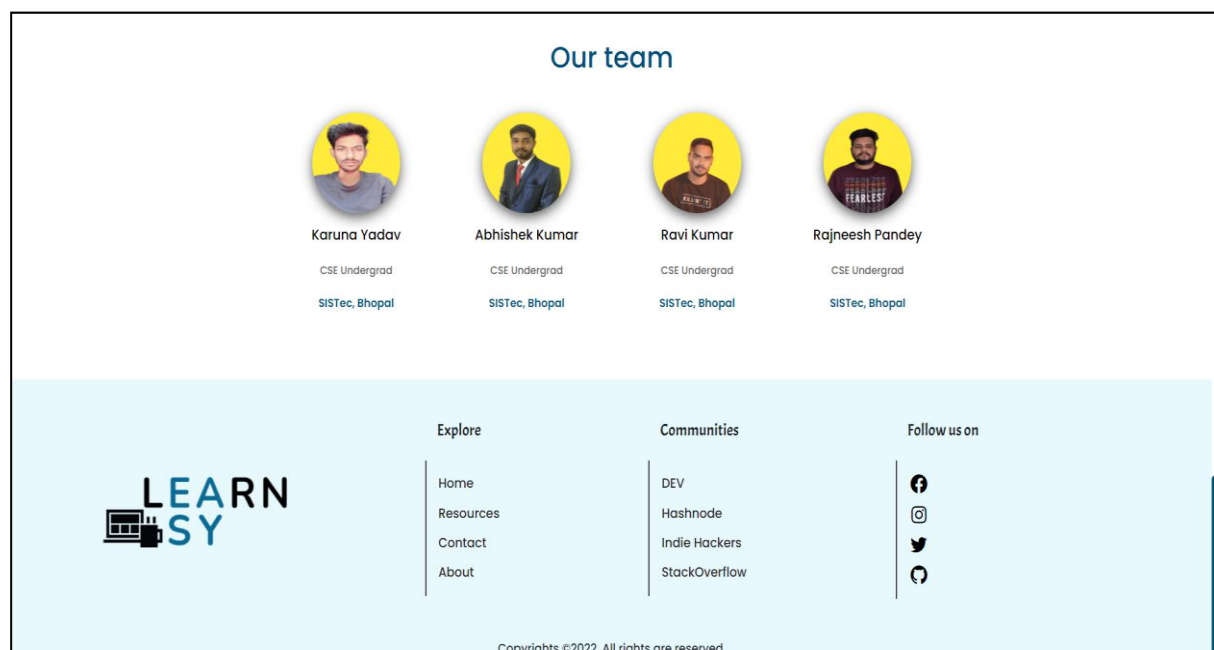


Fig. 7.4: Footer

7.2 Login

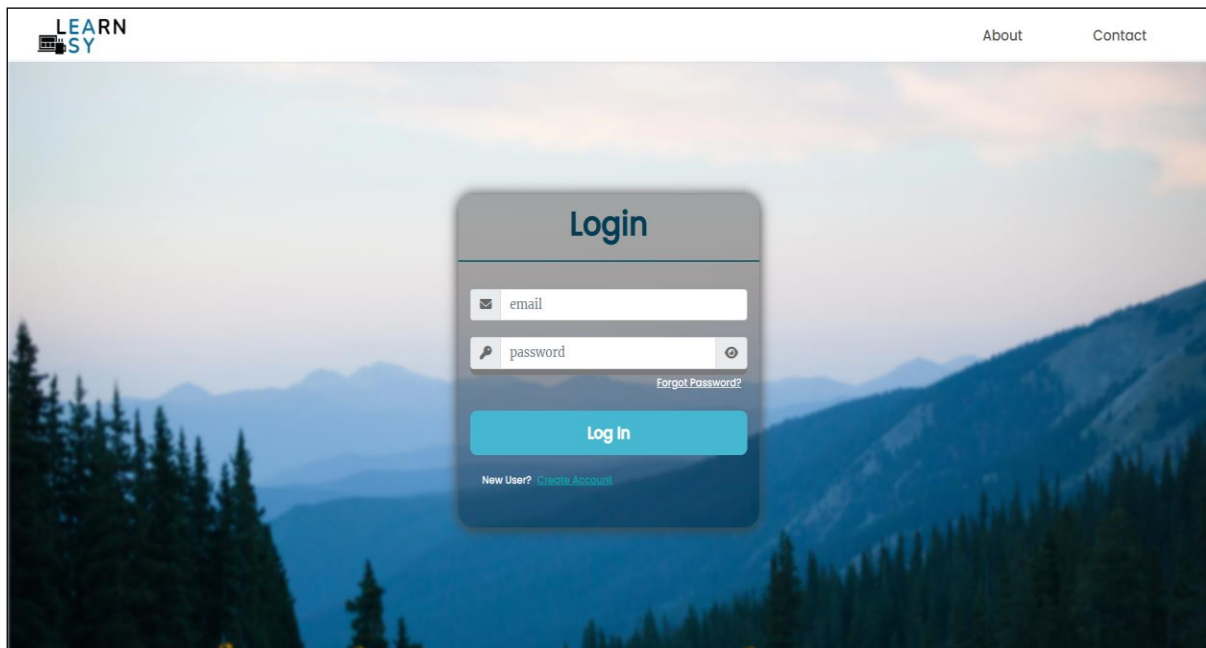


Fig. 7.5: Login page

7.3 Sign-up

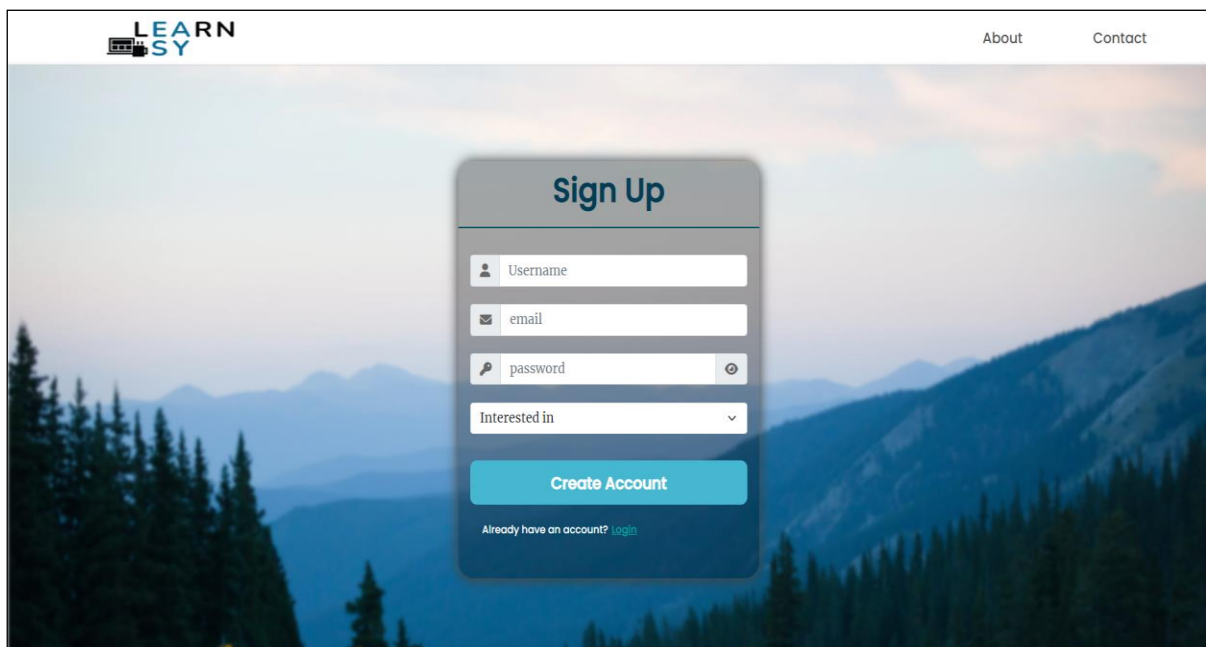
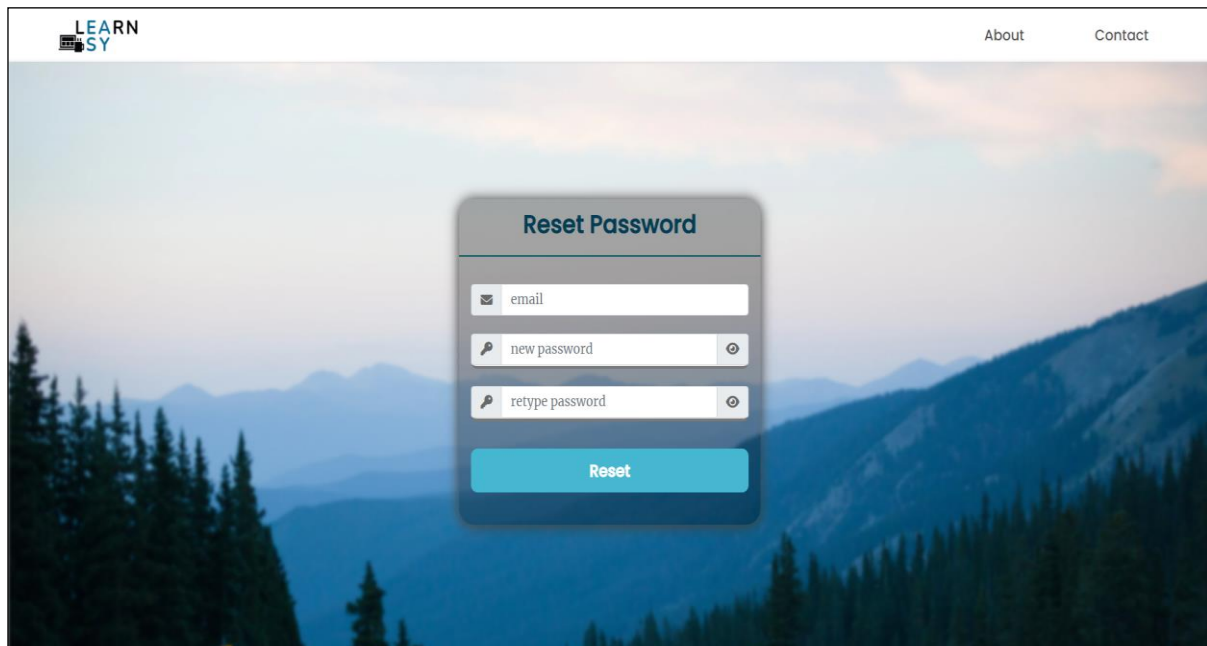


Fig. 7.6: Signup page

7.4 Reset Page



The screenshot shows the 'Reset Password' form on the LEARN SY website. The form is centered on a background image of a mountain landscape. It includes three input fields: 'email', 'new password', and 'retype password'. The 'new password' and 'retype password' fields have toggle icons for password visibility. A blue 'Reset' button is at the bottom of the form. The website header shows the 'LEARN SY' logo and 'About' and 'Contact' links.

LEARN SY

About Contact

Reset Password

email

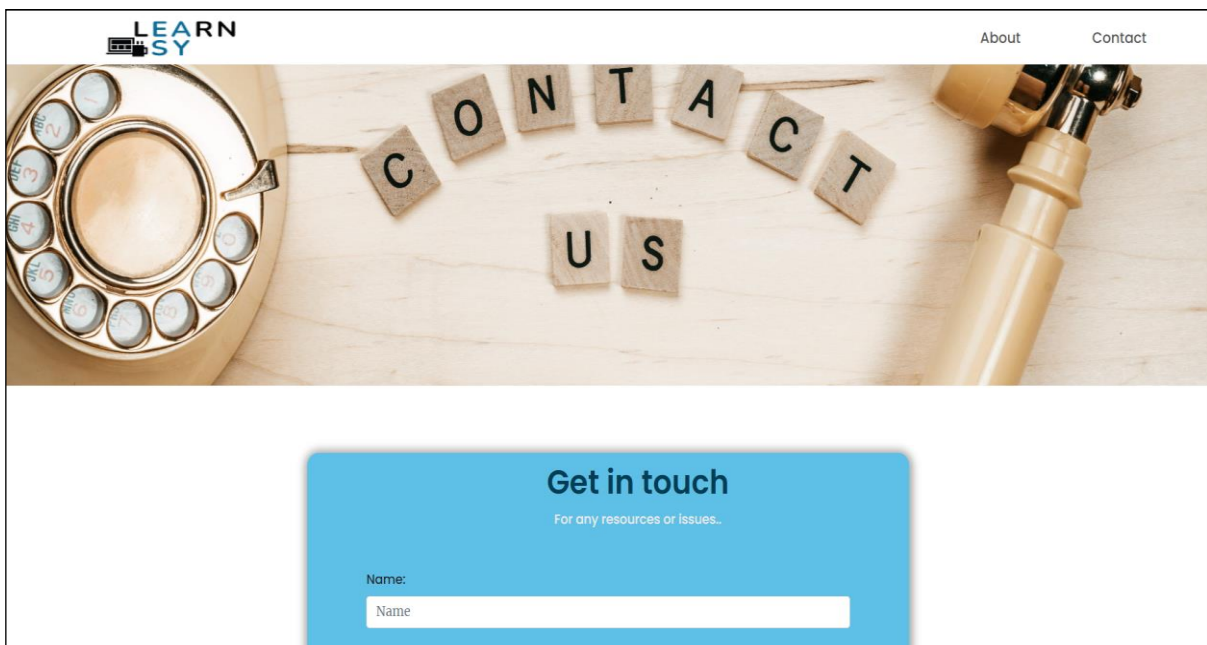
new password

retype password

Reset

Fig. 7.7: Reset page

7.5 Contact Page



The screenshot shows the 'Contact' page on the LEARN SY website. The header features the 'LEARN SY' logo and 'About' and 'Contact' links. The background image shows a rotary phone and wooden blocks spelling 'CONTACT US'. Below the image is a blue 'Get in touch' form with the text 'For any resources or issues..'. The form has a 'Name:' label and a text input field.

LEARN SY

About Contact

Get in touch

For any resources or issues..

Name:

Name

Fig. 7.8: Contact page

7.6 Contact Form



Get in touch
For any resources or issues..

Name:

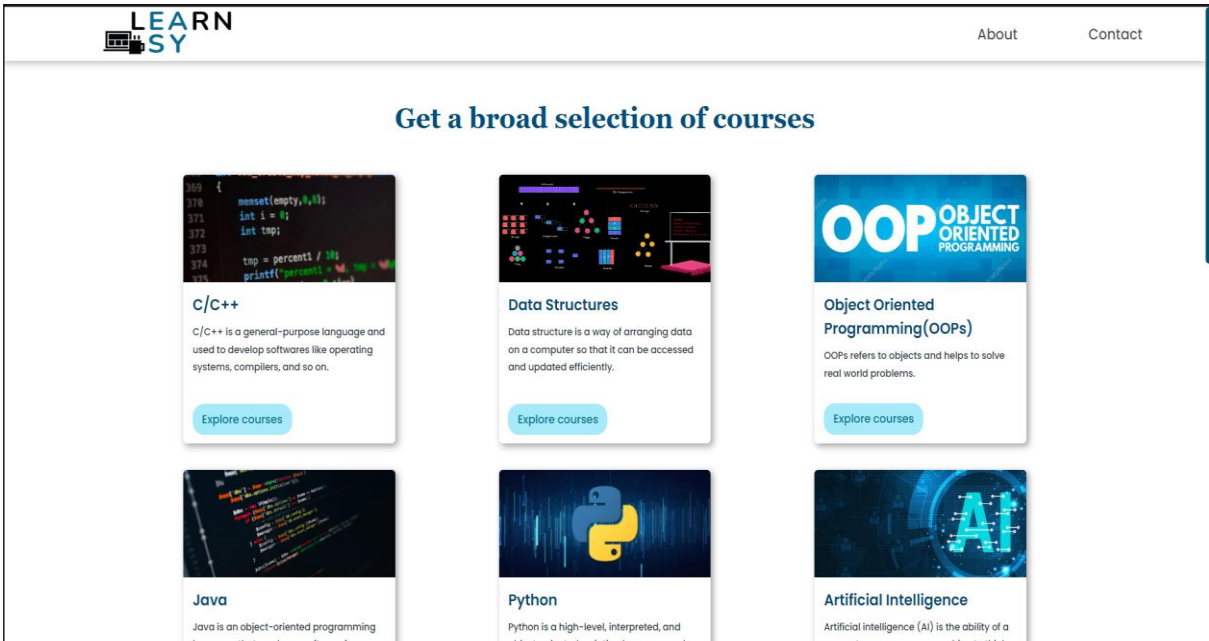
Email:

Subject:

Message:


Fig. 7.9: Contact form

7.7 All courses page



LEARN SY [About](#) [Contact](#)

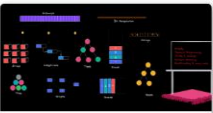
Get a broad selection of courses



C/C++

C/C++ is a general-purpose language and used to develop softwares like operating systems, compilers, and so on.


[Explore courses](#)



Data Structures

Data structure is a way of arranging data on a computer so that it can be accessed and updated efficiently.

[Explore courses](#)




OOP OBJECT ORIENTED PROGRAMMING

Object Oriented Programming(OOPs)


OOPs refers to objects and helps to solve real world problems.

[Explore courses](#)




Java

Java is an object-oriented programming language that produces software for



Python

Python is a high-level, interpreted, and object-oriented scripting language and



Artificial Intelligence

Artificial intelligence (AI) is the ability of a computer program or a machine to think

Fig. 7.10: All Courses page

7.8 All courses

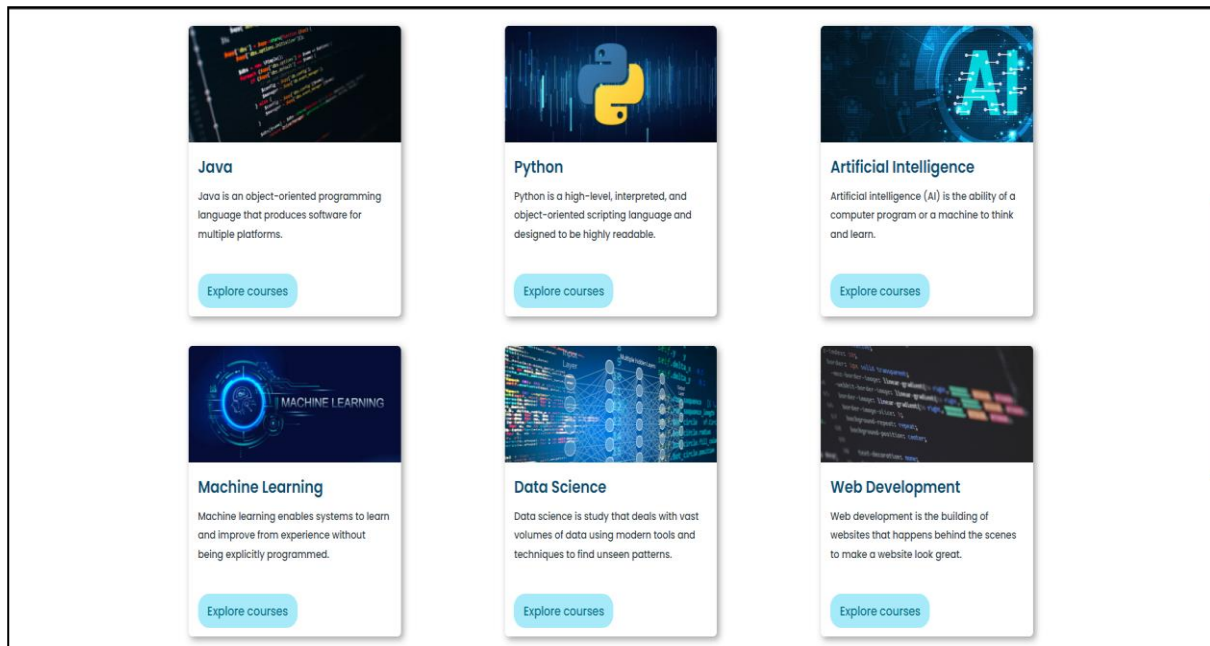


Fig. 7.11: All Courses page

7.9 Specific course page

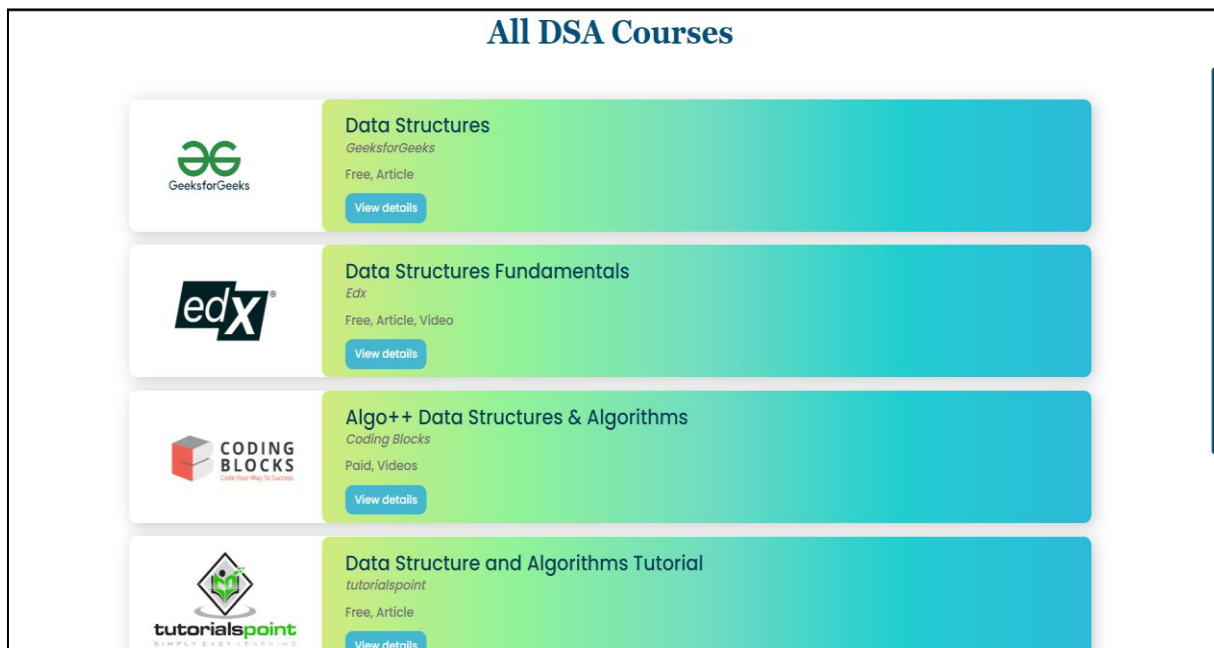


Fig. 7.12: Specific course page

7.10 Course detail page

LEARN SY About Contact

Data Structures

This course contains detailed tutorials on different data structures (DS) with topic-wise problem. Advance Career by Learning Algorithms through Programming and Problem-Solving skills. Apply the newly-learned algorithmic techniques to real-life problems, such as analyzing a huge social network and more.

4.9 145,235 ratings, 54,345 reviews

Beginner to Advanced
Free, Self-paced learning

[Go to course](#) [Bookmark](#)

or continue with more [DSA](#) courses.

GeeksforGeeks

Reviews

Lucy G.

★★★★★

One of the best course on Data Structures and Algorithms in C/C++. Thank you for your amazing explanations and also to the teaching assistants for their quick responses to any of my questions. I recommend this course to anyone wanting to learn about DSA. Thanks again.

Rating

★★★★★

Give your feedback...

[Submit](#)

Fig. 7.13: Course detail page

CHAPTER 8

DEPLOYMENT

CHAPTER 8

DEPLOYMENT

Steps of deployment: -

1. Change the link of database connection to the server link.
2. Export the MongoDB database from the system.
3. Import the MongoDB database to the server.
4. Deploy all project files to the github.
5. Then, connect project files to the Heroku.
6. Open the website with the help of link.

APPENDIX 1: GLOSSARY OF TERMS

(In alphabetical order)

A

ASD Agile Software Development. An approach to software development under which requirements and solutions evolve through the collaborative effort of self-organizing and small highly motivated team. It advocates continual improvement and encourages rapid and flexible response to change.

API Application Programming Interface. A communication protocols, and tools for building software. It's a set of clearly defined methods of communication among various components. A good API makes it easier to develop a computer program by providing all the building blocks, which are then put together by the programmer.

C

CLI Command Line Program. A command-line interface commands to a computer program in the form of lines of text.

CD Class Diagram. A class diagram in the unified modeling language is a type of static structure diagram that describe the structure of a system by showing the system's classes, their attributes, operations, and the relationships among objects.

CSS Cascading Style Sheets. CSS describes how HTML elements are to be displayed on screen, paper, or in other media. It can control the layout of multiple web pages all at once.

E

ERD Entity Relationship Diagram. ERD is a diagram that displays the relationship of entity sets stored in a database. ERD help to explain the logical structure of databases. ER Diagrams are created on the basic concepts: entities, attributes and relationships.

F

FR Functional Requirements. FR are the working characteristics of a product. These are based on how end users will use the product.

G

GHz Gigahertz. A computer's processor clock speed determines how quickly the central processing unit (CPU) can retrieve and interpret instructions. This helps your computer complete more tasks by getting them done faster.

GB Gigabyte. The gigabyte is a multiple of the unit byte for digital information. One gigabyte is one billion bytes.

H

HTML Hypertext Markup Language. HTML is formatting system for displaying material retrieved over the Internet. Each retrieval unit is known as a Web page, and such pages frequently contain hypertext links that allow related pages to be retrieved.

J

JS JavaScript is a scripting language, primarily used on the Web. It is used to enhance HTML pages and is commonly found embedded in HTML code. JavaScript

M

MVC Model View Controller is a software design pattern commonly used for developing user interfaces that divides the related program logic into three interconnected elements. This is done to separate internal representation of information from the ways information is presented to and accepted from the user.

N

NFR Non-Functional Requirements. NFRs define system attributes such as security, reliability, performance, maintainability, scalability etc.

O

OOP Object Oriented Programming. OOP is a computer programming model that organizes software design around data, or objects, rather than functions and logic.

U

UML Unified Modeling Language. It is a general-purpose modelling language. It's not a programming language, it is rather a visual language. UML is linked with object-oriented design and analysis. UML makes the use of elements and forms associations between them to form diagrams.

APPENDIX 2:

REFERENCES

WEBSITES (with exact URL up to page)

1. <https://developer.mozilla.org/en-US/docs/Web/HTML>
2. <https://css-tricks.com/snippets/css/a-guide-to-flexbox/>
3. <https://getbootstrap.com/docs/5.1/getting-started/introduction/#components>
4. https://www.w3schools.com/js/js_htmlDOM_animate.asp
5. <https://codetheweb.blog/style-a-navigation-bar-css/>
6. <https://animejs.com/>
7. <https://www.javatpoint.com/data-structure-tutorial>
8. <https://online.codingblocks.com/courses/data-structures-and-algorithms-online-course>
9. <https://www.codingninjas.com/courses/c-plus-plus-data-structures-and-algorithms>
10. <https://www.coursera.org/learn/html-css-javascript-for-web-developers>
11. <https://www.udemy.com/course/the-complete-web-development-bootcamp/>
12. <https://www.geeksforgeeks.org/data-structures/>
13. https://www.tutorialspoint.com/data_structures_algorithms/index.htm
14. <https://www.udacity.com/course/intro-to-machine-learning--ud120>
15. <https://www.edx.org/course/object-oriented-programming>
16. <https://www.pluralsight.com/courses/object-oriented-programming-fundamentals-csharp>
17. <https://www.mygreatlearning.com/academy/learn-for-free/courses/oops-in-java>
18. <https://intellipaat.com/blog/tutorial/python-tutorial/>
19. <https://www.codecademy.com/learn/learn-python-3>
20. <https://www.scaler.com/topics/python/>
21. <https://www.youtube.com/watch?v=rfscVS0vtbw>
22. <https://www.blockchain-council.org/certifications/certified-blockchain-developer/>
23. <https://www.programiz.com/java-programming>
24. <https://www.udacity.com/course/java-programming-basics--ud282>
25. <https://data-flair.training/blogs/data-science-tutorials-home/>
26. <https://www.geeksforgeeks.org/pure-css/?ref=lbp>
27. <https://getcssscan.com/css-box-shadow-examples>
28. <https://www.youtube.com/watch?v=zHZRFwWQt2w>
29. <https://www.youtube.com/watch?v=NLR2H7Z0cuM>

PROJECT SUMMARY

<i>About Project</i>	
Title of the project	<i>LEARNEASY</i>
Semester	<i>6th</i>
Members	<i>Ravi Kumar, Abhishek Kumar, Karuna Yadav, Rajneesh Pandey</i>
Team Leader	<i>Ravi Kumar</i>
Describe role of every member in the project	<i>Ravi Kumar – Backend Developer, Abhishek Kumar – Frontend Developer Karuna Yadav – Frontend Developer Rajneesh Pandey – Frontend Developer</i>
What is the motivation for selecting this project?	<i>Today, there are lot of courses available on the internet to study. But, to choose a good course to learn takes a longer time. So, we design this web application to ensure that learners can get one of best courses.</i>
Project Type (Desktop Application, Web Application, Mobile App, Web)	<i>Web Application</i>

<i>Tools & Technologies</i>	
Programming language used	<i>HTML, CSS and JS</i>
Compiler used (with version)	<i>----</i>
IDE used (with version)	<i>Microsoft Visual Studio Code (version 1.66)</i>
Front End Technologies (with version)	<i>HTML5, CSS3, JS (ES5, ES6), Bootstrap (5.0)</i>

Back End Technologies (with version, wherever applicable)	<i>MongoDB (5.0.6), NodeJS (16.13.0),</i>
Database used (with version)	<i>MongoDB (5.0.6)</i>

Software Design & Coding

Is prototype of the software developed?	<i>Yes</i>
SDLC model followed (Waterfall, Agile, Spiral, etc.)	<i>Agile</i>
Why above SDLC model used?	<i>Agile model has a set of guidelines that are: small, highly motivated project team and supports changing requirements. We need both guidelines to develop our project.</i>
Justify that the SDLC model mentioned above is followed in the project.	<i>We are the team of four members. Since, we didn't exactly know all the functionalities or the functionalities that were frequently changing, we use Agile model, so that we could make desired changes whenever needed.</i>
Software Design approach followed	<i>Object Oriented Approach</i>
Name the diagrams developed (according to the Design approach followed)	<i>ER-diagram, Class diagram, Use Case diagram and Table Structures</i>
In case Object Oriented approach is followed, which of the OOPs principle are covered in design?	<i>Object created and method</i>
No. of Tiers (example 3-tier)	<i>3-tier</i>
Total no. of front-end pages	<i>11</i>
Total no. of tables in database	<i>4</i>
Database is in which Normal Form?	<i>2-NF</i>

Are the entries in database encrypted?	<i>Yes, passwords are encrypted</i>
Front-end validations applied (Yes / No)	<i>Yes</i>
Session management done (in case of web application)	<i>Yes</i>
Is application browser compatible?	<i>Compatible for higher versions some features are not supported in older browsers like safari.</i>
Exception handling done (Yes/No)	<i>Yes</i>
Naming convention followed (Yes/No)	<i>Yes</i>
What difficulties faced during deployment of project?	
Total no. of Use Cases	<i>1</i>
Give title of Use-case	<i>Use case diagram of LEARNEASY</i>

<i>Project Requirements</i>	
MVC architecture followed (Yes/No)	<i>Yes</i>
If yes, write the name of MVC architecture followed (MVC-1, MVC-2)	<i>MVC-2</i>
Design Pattern used (Yes/No)	<i>Yes</i>
Interface type (CLI / GUI)	<i>GUI</i>
No. of Actors	<i>2</i>
Name of Actors	<i>Admin, User</i>
Total no. of Functional Requirements	<i>9</i>
List few important non-Functional Requirements	<i>Flexibility, Reliability and Maintainability</i>

<i>Testing</i>	
Which testing is performed? (Manual or Automation)	<i>Manual</i>
Is Beta testing done for this project?	<i>No</i>

Write project narrative covering above mentioned points.

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