

ABSTRACT



- To create a coding tutorial website that allows students to learn about coding from basics to advanced level, all in one place
- It provides both textual documentation covering all topics under a chosen language, as well as it also provides in detailed and simplified easy to learn video tutorials for every topic.
- The website also provides a discussion forum that enables users to interact with fellow coding enthusiasts and boost their knowledge through learning together.

TABLE OF CONTENTS

CHAPTER NO	TITLE	PAGE NO
1	PROBLEM STATEMENT	
2	STAKEHOLDERS & PROCESS MODELS	
3	IDENTIFYING REQUIREMENTS	
4	PROJECT PLAN & EFFORT	
5	WORK BREAKDOWN STRUCTURE & RISK ANALYSIS	
6	SYSTEM ARCHITECTURE, USE CASE & CLASS DIAGRAM	
7	ENTITY RELATIONSHIP DIAGRAM	
8	DATA FLOW DIAGRAM	

9 **SEQUENCE & COLLABORATION DIAGRAM**

10 **DEVELOPMENT OF TESTING**

FRAMEWORK/USER INTERFACE

11 **TEST CASES**

12 **MANUAL TEST CASE REPORTING**

CONCLUSION

REFERENCES

APPENDIX (CODE)

LIST OF FIGURES

FIGURE NO	TITLE	PAGE NO
1	WBS GANTT CHART	
2	SWOT ANALYSIS	
3	USE CASE DIAGRAM	
4	CLASS DIAGRAM	
5	BEHAVIORAL DIAGRAM	
6	ACTIVITY DIAGRAM	
7	ER DIAGRAM	
8	DATA FLOW DIAGRAM	
9	SEQUENCE DIAGRAM	
10	COLLABORATION DIAGRAM	

LIST OF ABBREVIATIONS

- 1. WBS – WORK BREAKDOWN STRUCTURE**
- 2. SWOT – STRENGTH WEAKNESS OPPORTUNITY THREAT**
- 3. SDLC – SOFTWARE DEVELOPMENT LIFECYCLE**

Project Title: studycipher.com

ONE PAGE BUSINESS CASE TEMPLATE

DATE	29/3/22
SUBMITTED BY	Diya Giri, Sonti Sri Harshitha, Bhogabhavish Dommeti
TITLE / ROLE	Coding webpage for students



THE PROJECT

In bullet points, describe the problem this project aims to solve or the opportunity it aims to develop.

- To create a coding tutorial website that allows students to learn about coding from basics to advanced level, all in one place
- It provides both textual documentations covering all topics under a chosen language, as well as it also provides in detailed and simplified easy to learn video tutorials for every topic.
- The website also provides a discussion forum which enables users to interact with fellow coding enthusiasts and boost their knowledge through learning together.

THE HISTORY

In bullet points, describe the current situation.

- In most websites already present on the web, the courses lack a proper structure which makes it difficult for beginners to navigate through them and makes the process of studying more tedious than it has to be.
- In our website we plan to make the courses we provide more structure, divided into subcategories such as beginner level, intermediate level and advanced level; which will lead to proper study plan for students.
- In today's world the most difficult part for a beginner is to decide on where to start and what to do first. Our website solves this problem by asking a few questions regarding the new users' previous experience regarding computer languages during the sign-up process itself. Based on these questions, our webpage provides a recommended course which could be a solid starting point for the customer.

- Since the website has a free module, it will be accessible to one and all. And if the user requires further assistance, they can head over to the premium section that includes in depth video tutorials; or they can also choose to write their queries down in the discussion forum and gain some clarity from fellow users of the website.
- Our website includes additional benefits applicable only to SRM students. Once the student signs up using their official mail addresses, they will be given access to all contents. It is quite a tedious job for students to look for assignment help or to find good quality explanation tutorials for the lectures they missed. Our website makes this job easier for the students by providing all the required documents in one place.

LIMITATIONS

List what could prevent the success of the project, such as the need for expensive equipment, bad weather, lack of special training, etc.

- Gathering all the required information about all the programming languages as it is a vast subject
- Getting access to video tutorials from our faculty
- Creating a website that stands up to the expectations and quality checks

APPROACH

List what is needed to complete the project.

- Create a working website
- Getting video tutorials from faculty and other resources
- Advertise the website mostly among the campus students and students looking to pursue higher education.

BENEFITS

In bullet points, list the benefits that this project will bring to the organization.

- Promotion of SRM faculty.
- Free access to all contents for SRM students to study a new language as well as to polish their existing skills.

Section 1: PROJECT DESCRIPTION

- We plan on making a coding webpage for students to learn computer languages from absolute beginner levels to advanced levels.
- This platform provides proper course structure, with each lesson divided into bite-sizes, making it easier for the user to grasp onto concepts better.
- The webpage aims to provides both textual documentations, covering all topics under a chosen language, as well as it also provides in detailed and simplified, easy to learn video tutorials for every topic.

- We specifically wish to obtain the video tutorials from our very own university Faculty in an attempt to utilize the webpage as a means of promotion of SRM university and its education quality among students in search of joining a university to pursue their higher education degree.
- Apart from the documentation and video tutorials, we plan on keeping a separate discussion panel, where everyone is allowed to pen down their doubts as well as help someone else out with their questions.
- The project will have two modules; one module is open for all, which has all the documentation and exercises; the other module gives user access to video tutorials on paying a nominal fee monthly during the sign-up and subscription process. As a means of promotion, the SRM university students will be given free access to every resource available.
- The webpage initially will provide information and courses on the computer languages- C, C++, Python, HTML, CSS, JavaScript.

Section 2: Project Constraints

- The purpose of this project is to provide quality information as well as tutorials regarding the computer languages. It also provides a platform for interaction among like-minded users, helping each other out as well as learning through discussion
- The questions need to be answered:
 - What are the coding languages the website would provide documentation and videos on?
 - Who will provide the video tutorials on the selected subjects?
 - What are the skills to be learnt in the process?
- The key issues that the project aims to solve is providing a structured course plan which is both easy and efficient for the users. The course being divided into beginner, intermediate and advanced concept levels, allows even a user with no previous coding experience to navigate through the course easily. The project also provides a recommended course based on the information provided by the user during sign up.
- The goals of the project are to attract anyone who is eager and interested to study coding languages, with the main focus on students looking forward to join a new university as well as the Engineering students of SRM University.
- The usable information required for the project will be provided through books, lectures, and the use of the Internet. HTML, CSS, JavaScript and other web development skills to be learned and implemented.

Section 3: Schedule, Resource and budget constraints

Problem resources

- 1.Lecture videos
- 2.Internet
- 3.Books
- 4.Students surveys

Time constraints

The commencement to examinations or other academic duties would hinder the development process and can cause a delay.

Availability and quality of resources

- The college library provides ample number of books on all coding languages
- Valuable lecture provided by our esteemed professors would act as a useful resource.
- The team members previous knowledge and learning focused on web development would contribute considerably to the quality of the project.

Problem budget

The budget for this project would be Rs.5000 - 6000 to gather equipment to take quality lecture videos, for the daily cost for the webpage development and utilization of the internet.

Result

Thus, the project team formed, the project is described, the business case was prepared and the problem statement was arrived.

LAB SESSION 2: STAKEHOLDER ANALYSIS

- By this project the positively affected people are the students or the people who are interested in programming, basically for the coding enthusiasts our website is very helpful.
- This project is mainly for students, as they can easily learn or know more about programming, hence if this project succeeds or fails that would only happen because of the end users or the students.
- The decisions about the money is our team lead (S.harshitha).
- The suppliers are the lecturers, internet as we gather information from it and also the books.
- The end users are the students and the people who are interested in programming.
- Our mentor has the influence over other stakeholders.
- Our team member (Diya Giri) has the capability to analyze solve problems arising during implementation in this project.
- Our team member (Bhogabhavish) is in charge of assigning or procuring resources or facilities required for the working of the project.
- All our team members are well trained and have the capability and the skills to make this project a success.

Aim

To identify the appropriate Process Model for the project and prepare Stakeholder and User Description.

Team Members:

Sl No	Register No	Name	Role
1	RA2011026010150	Sonti Sri Harshitha	Rep/Member
2	RA2011026010144	Diya Giri	Member
3	RA2011026010149	Bhogabhavish Dommeti	Member

Project Title:

Selection of Methodology

- < Summarize their understanding of “Waterfall” or “Agile” Methodology>

Agile Methodology: The meaning of Agile is swift or versatile. "Agile process model" refers to a software development approach based on iterative development. Agile methods break tasks into smaller iterations, or parts do not directly involve long term planning. The project scope and requirements are laid down at the beginning of the development process. Plans regarding the number of iterations, the duration and the scope of each iteration are clearly defined in advance.

Each iteration is considered as a short time "frame" in the Agile process model, which typically lasts from one to four weeks. The division of the entire project into smaller parts helps to minimize the project risk and to reduce the overall project delivery time requirements. Each iteration involves a team working through a full software development life cycle including planning, requirements analysis, design, coding, and testing before a working product is demonstrated to the client.

Following are the phases in the Agile model are as follows:

1. Requirements gathering
2. Design the requirements
3. Construction/ iteration
4. Testing/ Quality assurance
5. Deployment
6. Feedback

Incorporate information to below table regarding stakeholders of the project [Make use of below examples]

Stakeholder Name	Activity/ Area /Phase	Interest	Influence	Priority (High/ Medium/ Low)
Creator/owner	Creation of the website	High	High	1
Suppliers	Provide the necessary resources to be put up in the website	Med	Low	3
Team members	Upgrade skills, new product creation	High	High	2
Project Manager	Lead the team and accountable for entire project	High	High	2
Resource Manager	Resource planning and allocation	Med	Med	3
Investor	Promoter of the investment Provides necessary financial resources	Med	Low	4
End users	Gives feedback	High	Low	5

/ *

For Example

Stakeholder Name	Activity / Area / Phase	Interest	Influence	Priority (High / Medium/Low)
Regional Head of Sales & Marketing	Subscription using mobile App	High	High	1
Finance Account Receivable consultant	Multiple Currency Payment	High	Low	3

Interest and Influence matrix

Interest	Influence
High	High
Low	Low
Low	High
High	Low

Stakeholder	Interests	Estimated Project Impact	Estimated Priority
Owner	Achieve targets, Increase sales margin	High	1
Sponsor	Provides new market to expand ventures Negotiate funding for project Reviews changes to project environments.	Med	3
Team members	Demand incentives Retain and upgrade skills New product excitement	High	2
Project Manager	Lead the team in every aspect. Accountable for entire project scope, team, success & failure	High	2
Investors	Promoter of the investment, Provides necessary financial resources	Low	5
Resource Manager	Resource planning and allocation. Ensuring adequate resource according to project needs and budget.	Med	4
Suppliers	Ensuring feasible and realistic in every aspect Managing divergence from budgeted cost.	Med	6
End Users	Provides feedback	Low	7



Result

Thus the Project Methodology was identified and the stakeholders were described.

Aim

To identify the system, functional and non-functional requirements for the project.

Team Members:

S No	Register No	Name	Role
1	RA2011026010150	Sonti Sri Harshitha	Rep/Member
2	RA2011026010144	Diya Giri	Member
3	RA2011026010149	Bhogabhavish Dommeti	Member

Project Title: < >

System Requirements:

- * Processor. At the bare minimum an i5-class processor.
- * Hard Drive / Storage. A solid state hard drive (SSD or NVMe, etc) with at the very minimum 256GB of storage.
- * RAM. 8GB of RAM.
- * Video Card.
- * Built in mic, speakers and camera
- * Minimum three year warranty for accident protection
- * Back up is needed for our work, in case of any casualties
- * Wire less mouse
- * Wired mouse

Functional Requirements:

- The user allowed to choose between the ‘free for all module’ and ‘premium’ module during sign up process
- The system must allow users to sign in/log into their account by entering their email and password
- The system must allow users to log in with their Google accounts
- The system must allow users to reset their password by clicking on "I forgot my password" and receiving a link to their verified email address.

- The system must send a confirmation email whenever a new sign up process is completed
- The system suggests a course to the user based on the details entered by the user in the sign-up stage
- The user given access to the material in the course when the course is selected
- The system provides a link to a code compiler for the purpose of implementation by the user
- The system must provide users access to a discussion forum
- The system monitors the progress and completion of the current sub- course and then suggests the next sub-course in sequence to be learnt by the user
- The system charges a recurring amount every two months for the premium users
- The system provides access to video tutorials under every course only to the premium users
- The system shows a prompt 'Get Premium at ₹_ for 2 months' when a non-premium user tries to access the video tutorials
- The system provides free access to all content, for all the students who have signed in with their SRM University login IDs

Non-Functional Requirements

- The password generated by the user during sign up must be minimum 8 characters long and have uppercase and lowercase alphabets and special symbols
- The system shall ask a security question during sign up process, which will later be use in case the user forgets his/her password
- The system provides on screen contextual prompts that guide user on how to operate software
- Each page must load within 2 seconds.
- The software should be portable. So moving from one OS to other OS does not create any problem.
- Privacy of information, the export of restricted technologies, intellectual property rights, etc. should be audited.

- Non-premium users not to be given access to the video tutorials

Result

Thus the requirements were identified and accordingly described.

Aim

To Prepare Project Plan based on scope, Calculate Project effort based on resources,
Find Job roles and responsibilities

Team Members:

Sl No	Register No	Name	Role
1	RA2011026010150	Sonti Sri Harshitha	Rep/Member
2	RA2011026010144	Diya Giri	Member
3	RA2011026010149	Bhogabhavish Dommeti	Member

Requirements:

1. Project Management Plan

Focus Area	Details
-------------------	----------------

Schedule Management

The project implementation milestones are defined as:

- Get a domain name
- Creating a simple log-in/sign-up page
- Create a secure payment gateway for transaction purpose
- Create a free and premium module for the website.
- Design the layout of the modules as well as the courses.
- Milestone 1: testing; Time : 15 days ● Purchase a database.
- Create separate courses for the coding languages each having beginner, intermediate and advanced levels. Each course is dedicated towards teaching a particular coding language.

- Insert documentation of all the courses.
- Upload tutorial videos for all the courses.
- Milestone 2: testing; Time : 2 months
- Create a compiler for users to implement and practice the code they learn.
- Milestone 3: testing Time:3 days
- Create a discussion forum and check its working.
- Add HTTPS and SSL certificate to the website to make it more secure
- Apply for a web application firewall.
- Milestone 4: testing and implementation Time:7 days
- Create a back-up for the web application.

At every milestone performance reviews and variance analysis are performed. The performance review helps to measure, compare and analyze the performance of your schedule. And the variance analysis helps to acknowledge the difference between the planned and actual schedule of the project as well as helps to determine the cause of the variance.

Resource Management

Allocation: The amount of effort required.

Equipment 4 tools: intangible assets (software, Process, methods and even ideas)

Aggregation: The total amount consumed

Materials: Website scripting, Contact forms, Domain, Website databases, Shared content between file transfer, web pages

Technology: Platform, HTML, CSS and javascript, Database engine framework, Programming language, Webstack

Property: Webpages, Coding, color, front, website, branding, framing, Software Distribution communication.

Stakeholder

- Creator/owner - Creation of the website
- Suppliers - Provide the necessary resources as well as the documentation required to be put up in the website

The video tutorials to be provided by the respective faculties

- Team members - Upgrade skills, new product creation

Work on the improvement of existing software and add new updates to the project

Work on risk analysis and risk management and mitigation

- Project Manager - Lead the team and accountable for entire project

Handle the expenses and make sure it is within the budget constraints

Cross checks whether the customer requirements are met

Checks the timely production of a version of working software, or the completion of work as per decided schedule

- Resource Manager - Resource planning and allocation

Authentication of the provided documents

Decides what is to be put up in the website and in what manner.

	<ul style="list-style-type: none"> Investor - Provides the necessary financial resources for the construction of the project <p>Checks on the implementation of the working software</p> <ul style="list-style-type: none"> End users - Signs into the website as a new user and explore the content provided <p>Gives feedback and reports any problems or issues faced</p> <p>Makes the decision regarding whether to use the free module or the premium module</p>
--	---

2. Estimation 2.1. Effort and Cost Estimation

The projects classified as Semi-Detached are comparatively less familiar and difficult to develop compared to the organic ones and require more experience and better guidance and creativity.

Activity Description	Sub-Task	Sub-Task Description	Effort (in hours)	Cost in INR
Design the website	Get a domain name	-	2	3200
	Create a log-in/ sign-up page for the user	<p>The log-in page asks for the account email address and the password assigned to it.</p> <p>The sign-up page asks the user to enter details such as name, gender, date of birth, email id, phone number and any</p>	1.38	500

		<p>previous experience with coding languages. Next it asks to generate a valid password of minimum length 8 and maximum length 20; containing an uppercase letter, a lowercase letter and a special character.</p> <p>Estimated lines of code = 0.5 KLOC</p>		
	Create two separate modules for regular and premium users	<p>During the sign-up process, the user is asked whether they want to access the free module of the website or pay a nominal fee to upgrade to the premium module which provides access to video tutorials</p> <p>Users signing in with their SRMIST email IDs are given free access to the premium module.</p> <p>Estimated KLOC = 2</p>	6.5	5000
	Create a discussion forum within the website	<p>The discussion forum allows users to communicate with each other asking queries or providing solutions.</p> <p>Estimated KLOC = 1.5</p>	4.72	1000

Insert documentation into the website	Arrange data based on the courses offered	Create a database containing complete information on the following coding languages- C, C++, Python, Java, HTML, CSS, JavaScript	14	100
	Construct courses based on three levels- beginner, intermediate and advanced.	Estimated KLOC = 20	86	2000
	Record and collect video tutorials from instructors, teachers and faculties of universities.	-	21	25000-35000
	Insert video tutorials related to the course content	-		5000
	insert a search toolbar.	Search toolbar is used to find specific content in the web application as per user requests Estimated KLOC =0.3	0.8	500
Establish a payment system	Connect various payment devices such as UPI, debit cards, credit cards and netbanking.	Transactions during premium upgrade Estimated KLOC=0.8	2.3	1000

Construct a compiler for the website		Compiler allows user to implement the code they are learning and testing new codes	1.5	1000
		Estimated KLOC=0.4		

Calculations:

The first level, **Basic COCOMO** can be used for quick and slightly rough calculations of Software Costs. Its accuracy is somewhat restricted due to the absence of sufficient factor considerations.

$$E = a(KLOC)^b$$

$$time = c(Effort)^d$$

Software Projects	a	b	c	d
Organic	2.4	1.05	2.5	0.38
Semi Detached	3.0	1.12	2.5	0.35
Embedded	3.6	1.20	2.5	0.32

For example:

1. Creation of log-in/ sign-up page:

$$Effort = 3.0 * (0.5)^{1.12} = 1.38$$

2. Creation of separate modules: Effort

$$= 3.0 * (2)^{1.12} = 6.5$$

3. Creation of discussion forum:

$$Effort = 3.0 * (1.5)^{1.12} = 4.72$$

Effort (hr)	Cost (INR)
140.2	54300

2.2. Infrastructure/Resource Cost [CapEx]

Infrastructure Requirement	Qty	Cost per qty	Cost per item
High quality cameras for recording videos from the lecturers	1	5000	5000

2.3 Maintenance and Support Cost [OpEx]

Category	Details	Qty	Cost per qty per annum	Cost per item
License	Operating System Database	2	60000	12000
	IDE Domain			
Infrastructures	Network	1	4800	4800

3. Project Team Formation

3.1. Identification Team members

Name	Role	Responsibilities
Customers	Key Business User (Product Owner)	Provide clear business and user requirements
Sonti Sri Harshitha	Project Manager	Manage the project
Sonti Sri Harshitha	Business Analyst	Discuss and Document Requirements
Diya Giri, Bhogabhavish Dommeti	UX Designer	Design the user experience
Diya Giri, Sonti Sri Harshitha	Frontend Developer	Develop user interface
Bhogabhavish Dommeti, Diya Giri	Backend Developer	Design, Develop and Unit Test Services/API/DB
Bhogabhavish Dommeti	Tester	Define Test Cases and Perform Testing

3.2. Responsibility Assignment Matrix

RACI Matrix	Team Members			
Activity	Sonti Sri Harshitha (BA, Developer)	Bhogabhavish Dommeti (Developer, Tester)	Diya Giri (Developer, Designer)	Key Business User
User Requirement Documentation	A	C/I	C/I	R
Getting and managing a database	I	A	C	I

Getting a domain name	I	R	I	I
Develop UI/UX design	C/I	A	R	I
Sign-up/log-in page	C	A	A	R
Password generation and authentication	I	C	A	R
Code for Forgot password method	A	C	R	-
and Reset password method				
Automated Registration confirmation e-mail	C	C	R	I
Payment gateway	A	R	C/I	-
Design Modules	C/I	A	A	-
Insert Documentation	R	A	C	I
Video upload	A	R	I	I
Compiler design	C	I	R	-
Forum Design	A	C/I	R	-
web app firewall	A	R	C/I	I
A	Accountable			
R	Responsible			
C	Consult			
I	Inform			

Reference

1. <https://www.pmi.org/>
2. <https://www.projectmanagement.com/>
3. <https://www.tpsgc-pwgsc.gc.ca/biens-property/sngp-npms/ti-it/ervcpgpm-dsfvpmpteng.html>

Result:

Thus, the Project Plan was documented successfully.

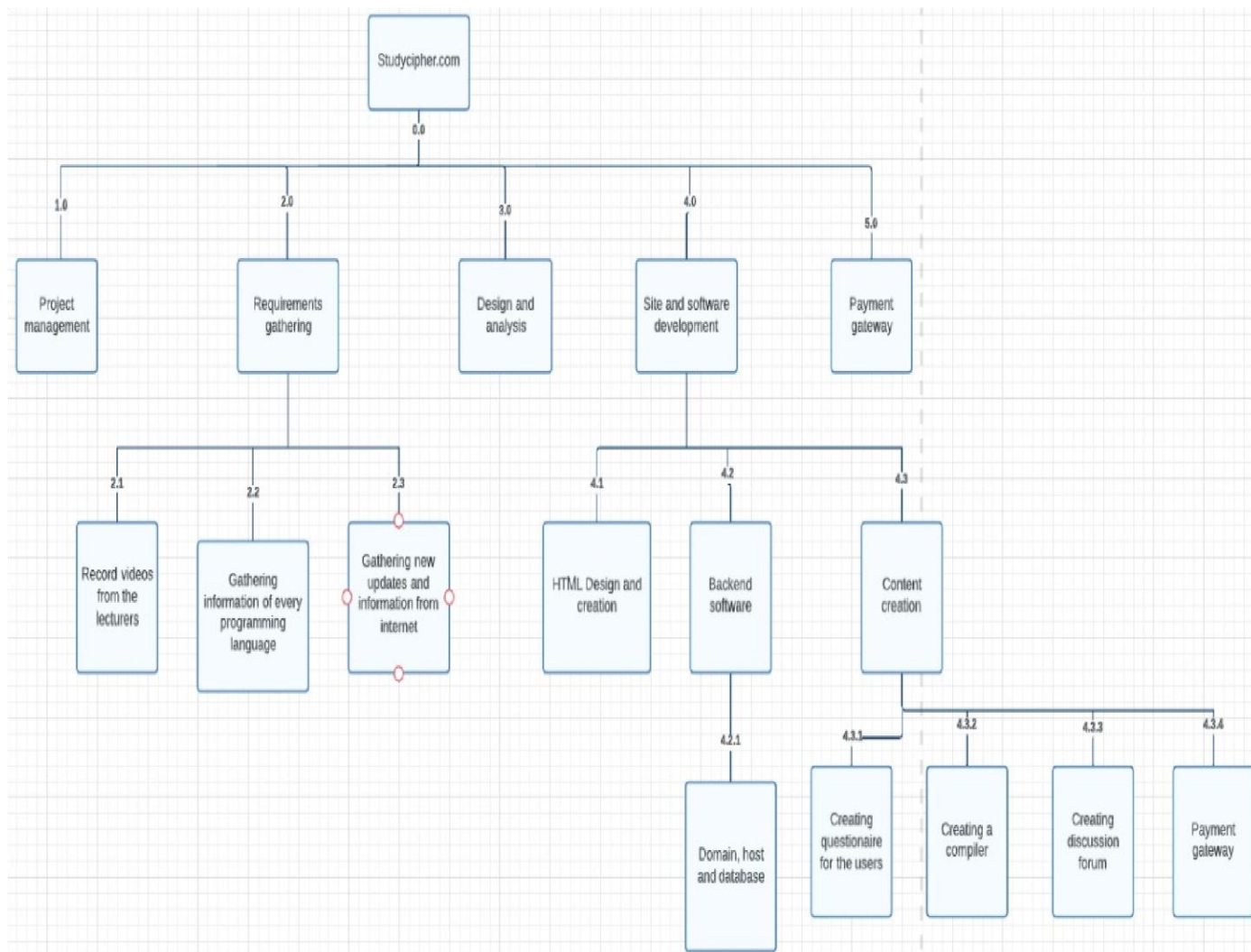
Aim

To Prepare Work breakdown structure, Timeline chart and Risk identification table

Team Members:

SI No	Register No	Name	Role
1	RA2011026010150	Sonti Sri Harshitha	Rep/Member
2	RA2011026010144	Diya Giri	Member
3	RA2011026010149	Bhogabhavish Dommeti	Member

WBS-Work breakdown structure



0.0 studycipher.com

1.0 Project Management

2.0 Requirements Gathering ○ 2.1 Record videos from lecturers ○

2.2 Gathering information of every programming language ○

2.3 Gathering new updates and information from internet

3.0 Analysis & Design

4.0 Site Software Development

- 4.1 HTML Design and Creation

- 4.2 Backend Software

- 4.2.1 Domain, host and database

- 4.3 Content creation

- 4.3.1 Creating questionnaire for the users

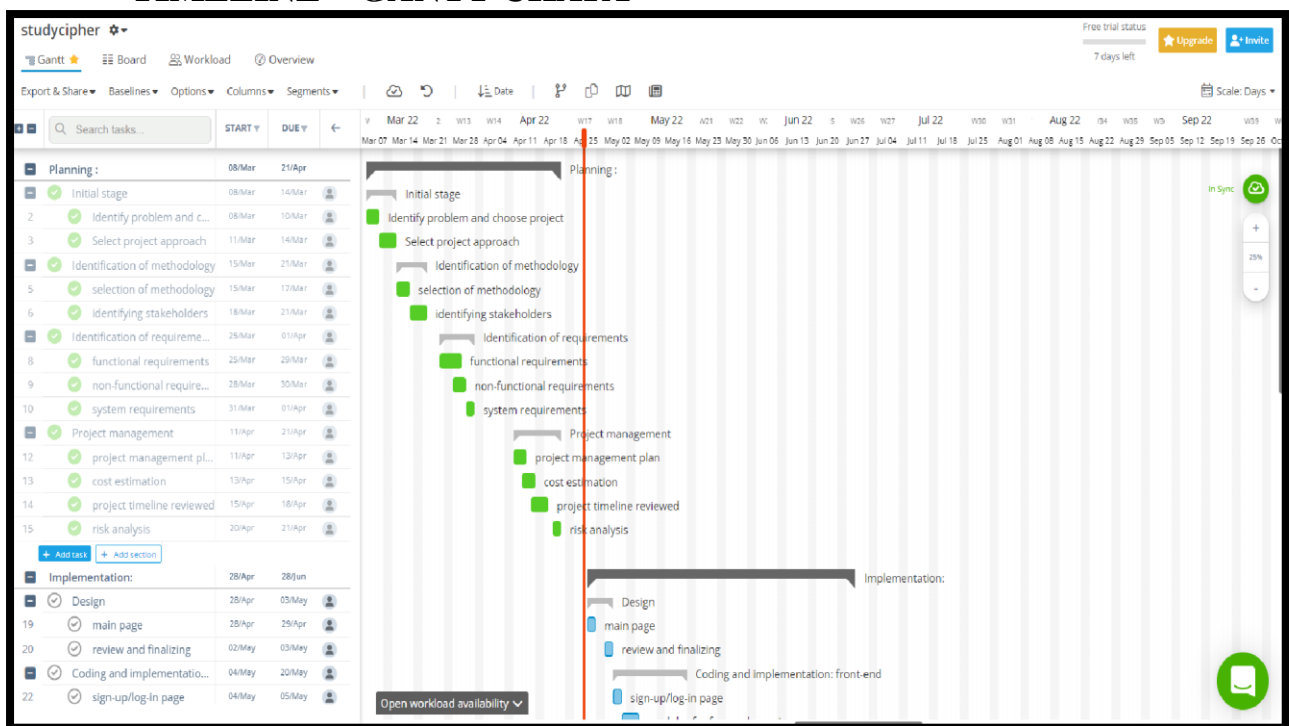
- 4.3.2 Creating a compiler

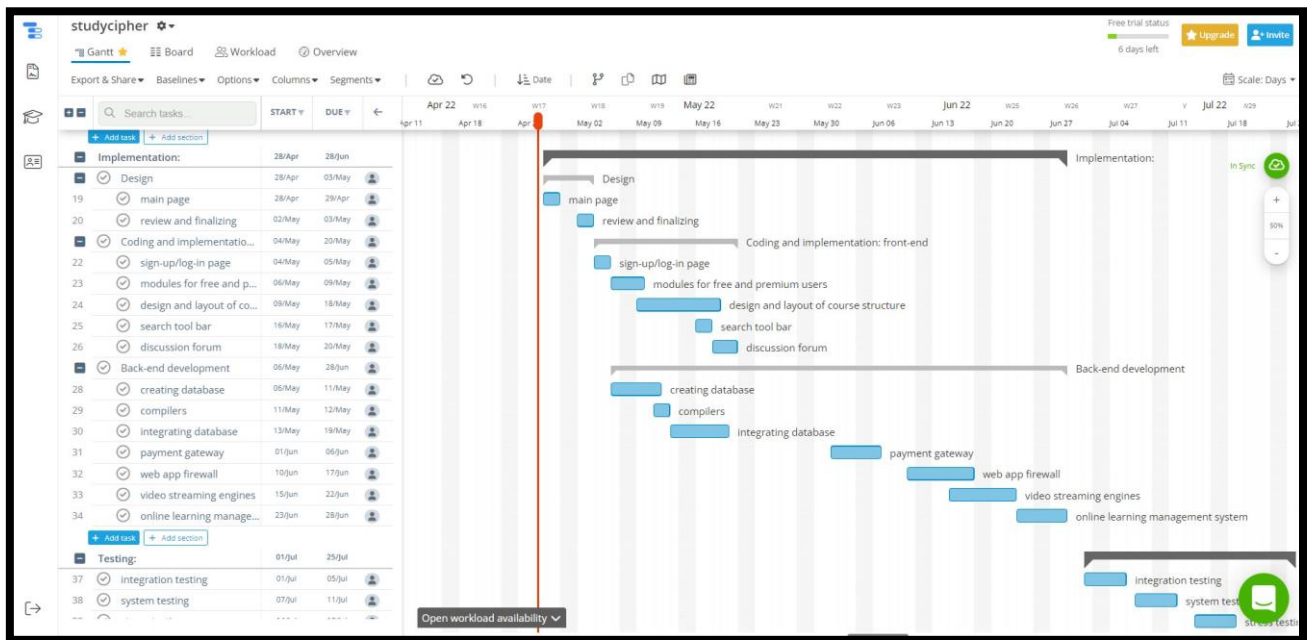
- 4.3.3 creating discussion forum

- 4.3.4 payment gateway

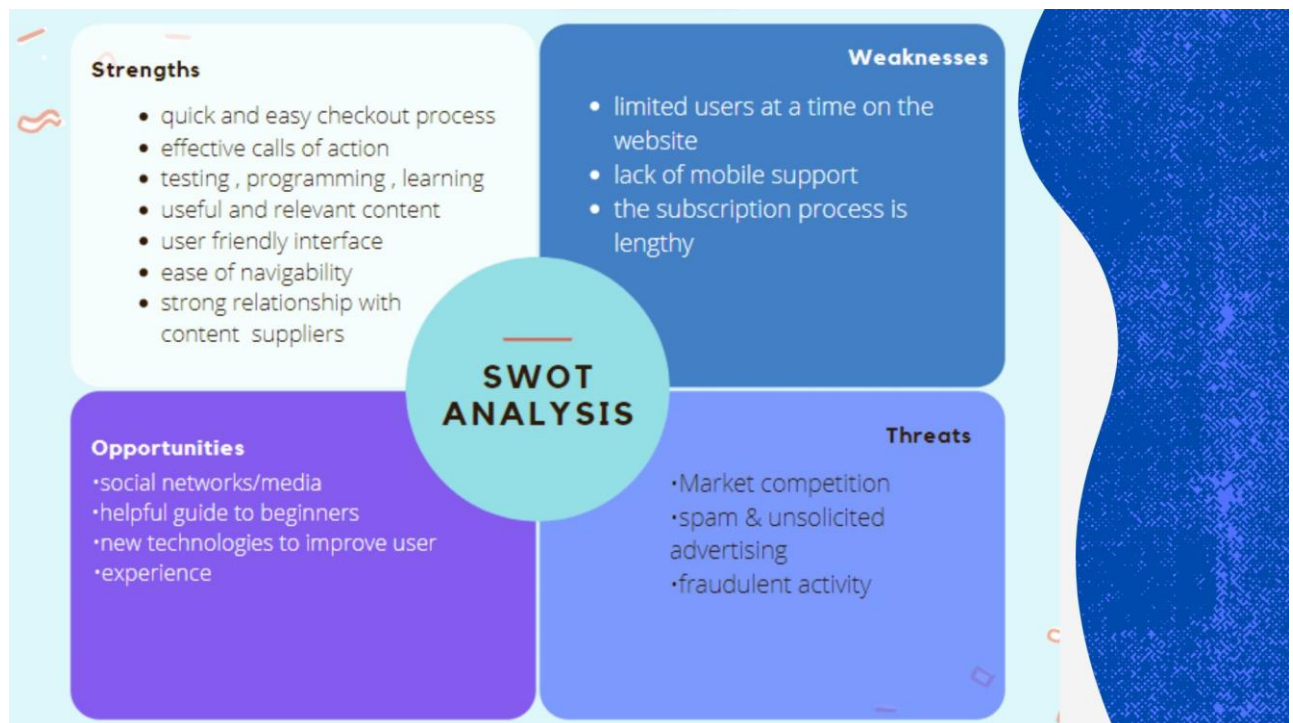
5.0 Payment Gateway

TIMELINE – GANTT CHART





RISK ANALYSIS – SWOT & RMMM



RESPONSE	STRATEGY	EXAMPLES
AVOID	Risk avoidance is a strategy Where the project team takes action to remove the threat of the risk or project from the impact	<ul style="list-style-type: none"> □ □ Payment issues faced by the user □ The users or the customers feedback
TRANSFER	Risk transference involves shifting or transferring the risk threat and impact to a third party. Rather transfer the responsibility and ownership..	<ul style="list-style-type: none"> • Purchasing insurance • Indemnification of clause in contracts
MITIGATE	Risk mitigation is a strategy where by the project team takes a action to reduce the probability of the risk occurring. This does not risk or potential impact, but rather reduces the likelihood	<ul style="list-style-type: none"> • • increase testing to check problems in readability of the website checking compatibility of the web application with
	of it becoming real.	<ul style="list-style-type: none"> • different browsers • Addition of web app firewall and HTTPS, SSL etc to check on security threats in the transaction gateway
ACCEPT	Risk acceptance means the team acknowledges the risk and its potential impact, but decides not to take any preemptive action to prevent it. It is dealt with only if it occurs	<ul style="list-style-type: none"> • • back-up website of crash due to traffic overflow extension of schedule- project schedule not met due to academic responsibilities.

		<ul style="list-style-type: none">• contingency reserve budgets if budget constraints reached
--	--	---

Result:

Thus, the work breakdown structure with timeline chart and risk table were formulated successfully.

Aim

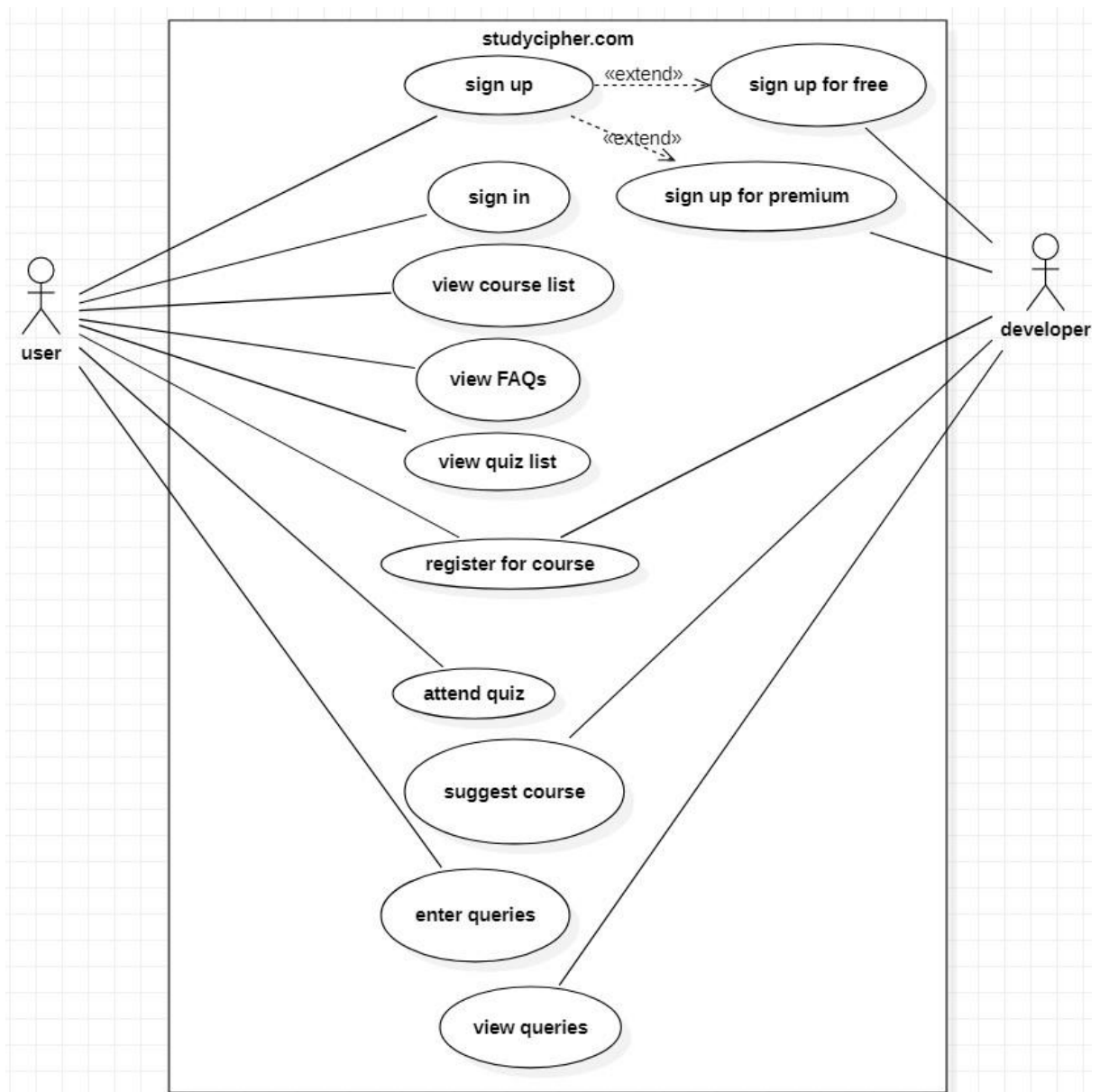
To Design a System Architecture, Use case and Class Diagram

Team Members:

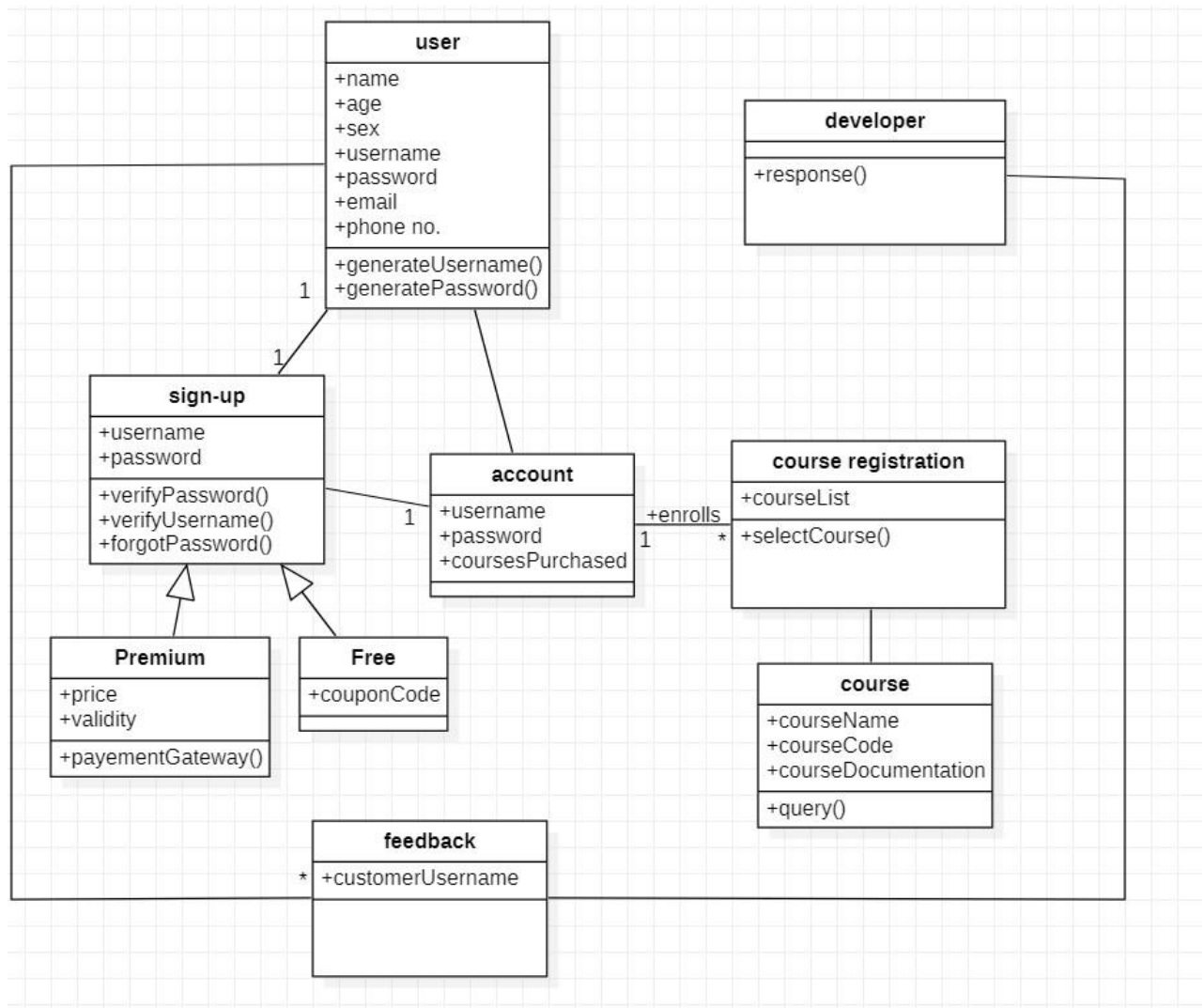
SI No	Register No	Name	Role
1	RA2011026010150	Sonti Sri Harshitha	Rep/Member
2	RA2011026010144	Diya Giri	Member
3	RA2011026010149	Bhogabhavish Dommeti	Member

Requirements

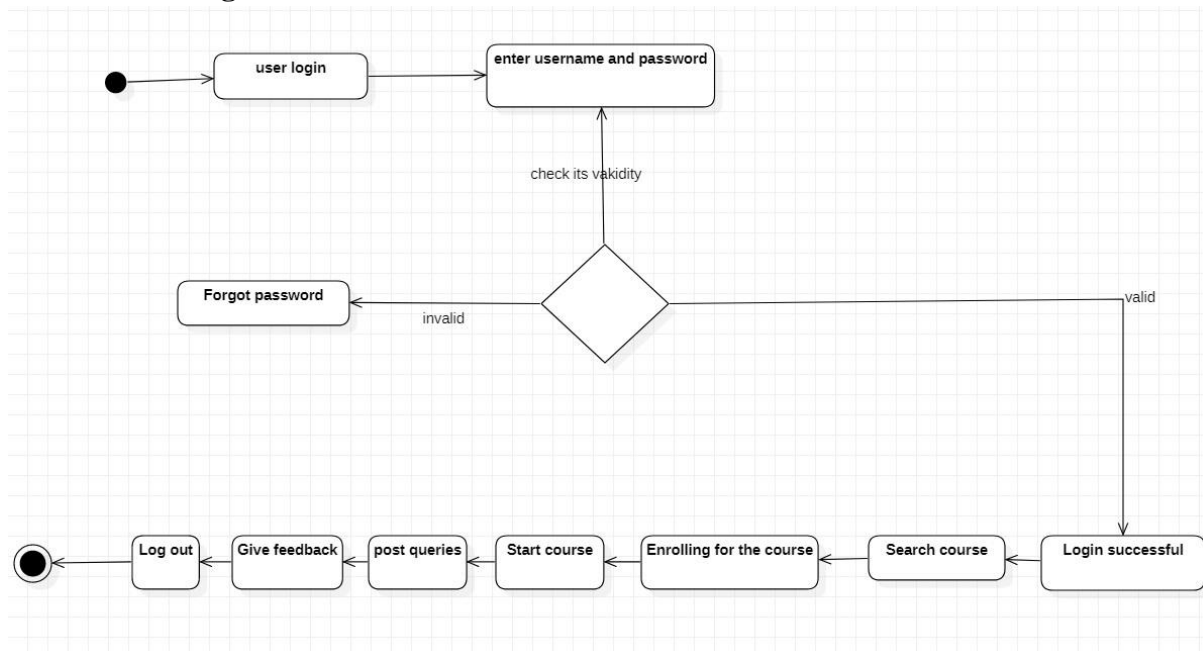
UseCase Diagram:



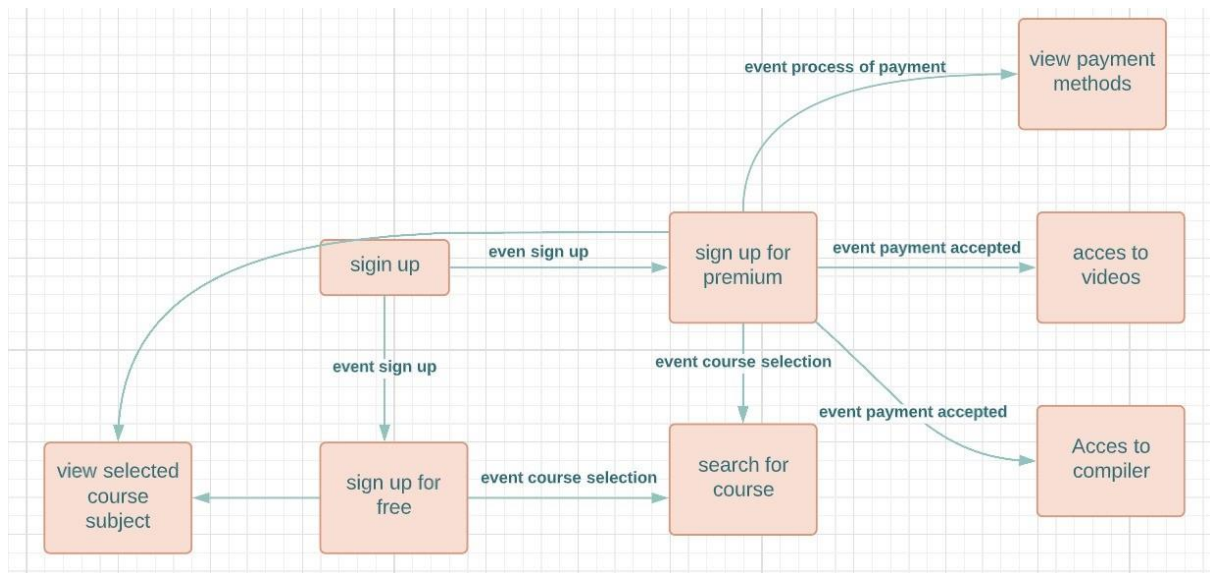
Class Diagram:



State Chart Diagram



System architecture- Event Driven architecture



Result:

Thus, the system architecture, use case and class diagram created successfully.

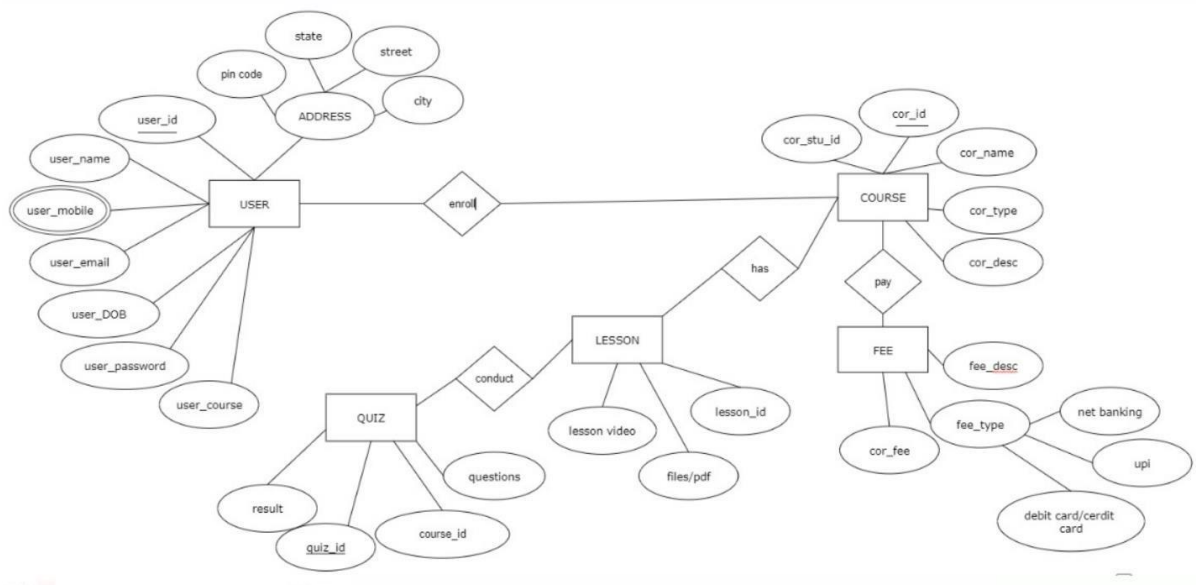
Aim

To create the Entity Relationship Diagram

Team Members:

S No	Register No	Name	Role
1	RA2011026010150	Sonti sri harshitha	Rep
2	RA2011026010144	Diya giri	Member
3	RA2011026010149	Bhoga bhavish	Member

<ER Diagram >



Result:

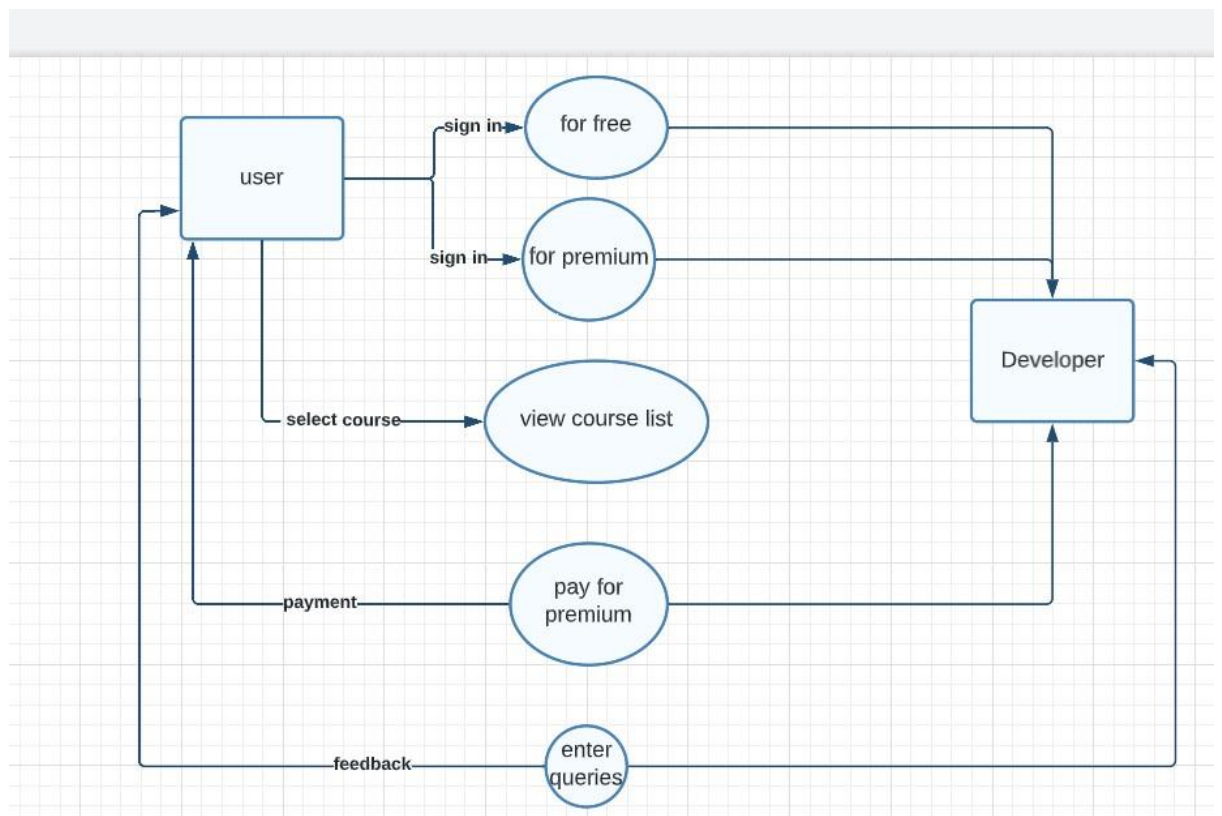
Thus, the entity relationship diagram was created successfully.

Aim

To develop the data flow diagram for the Studycipher.com

Team Members:

S No	Register No	Name	Role
1	RA2011026010150	S. Sri Harshitha	Rep
2	RA2011026010144	Diya Giri	Member
3	RA2011026010149	Bhogabhavish	Member



Result: Thus, the data flow diagrams have been created for the Studycipher.com

Result:

Thus, the data flow diagrams have been created for the Studycipher.com

Aim

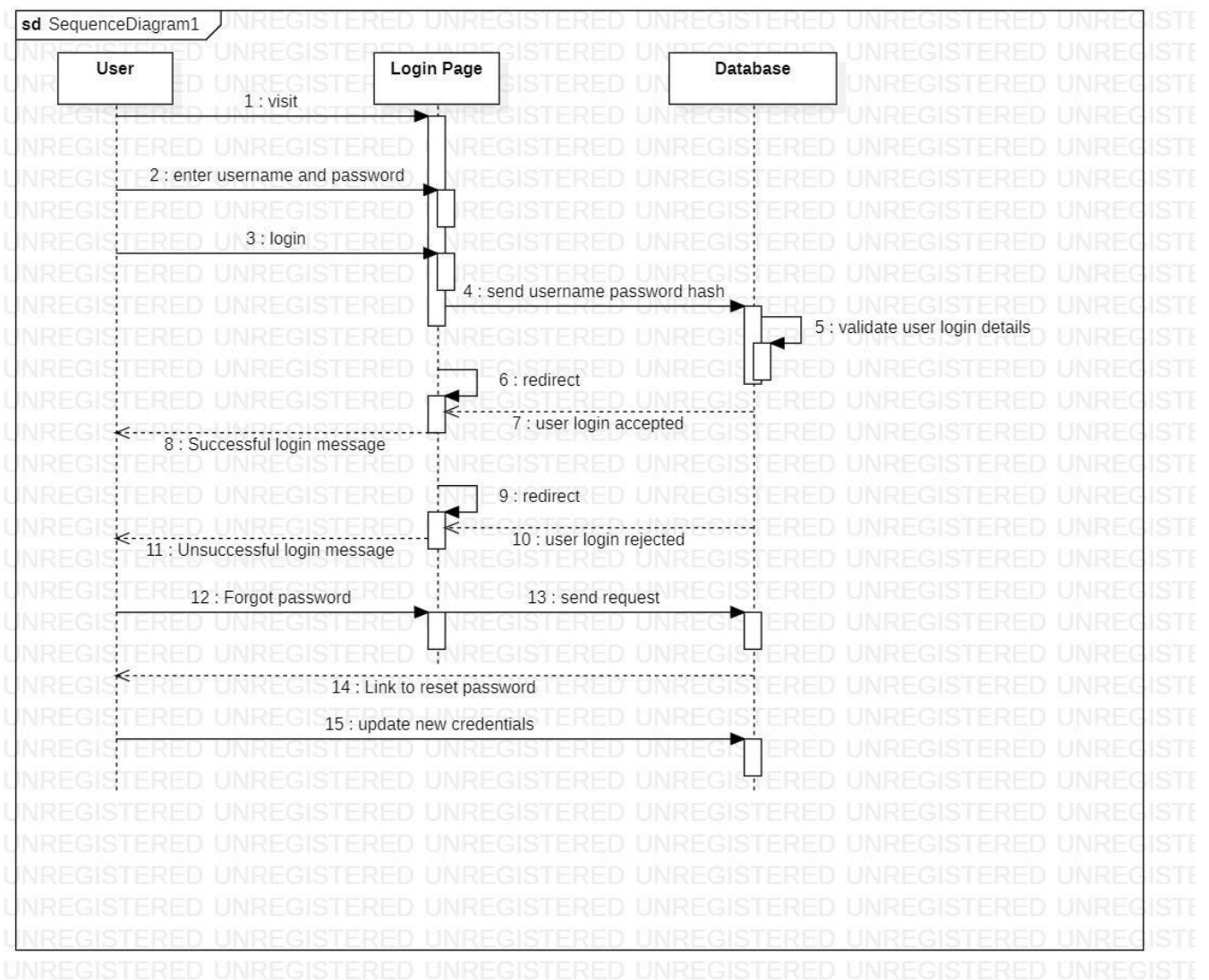
To create the sequence and collaboration diagram for the project StudyCipher.in

Team Members:

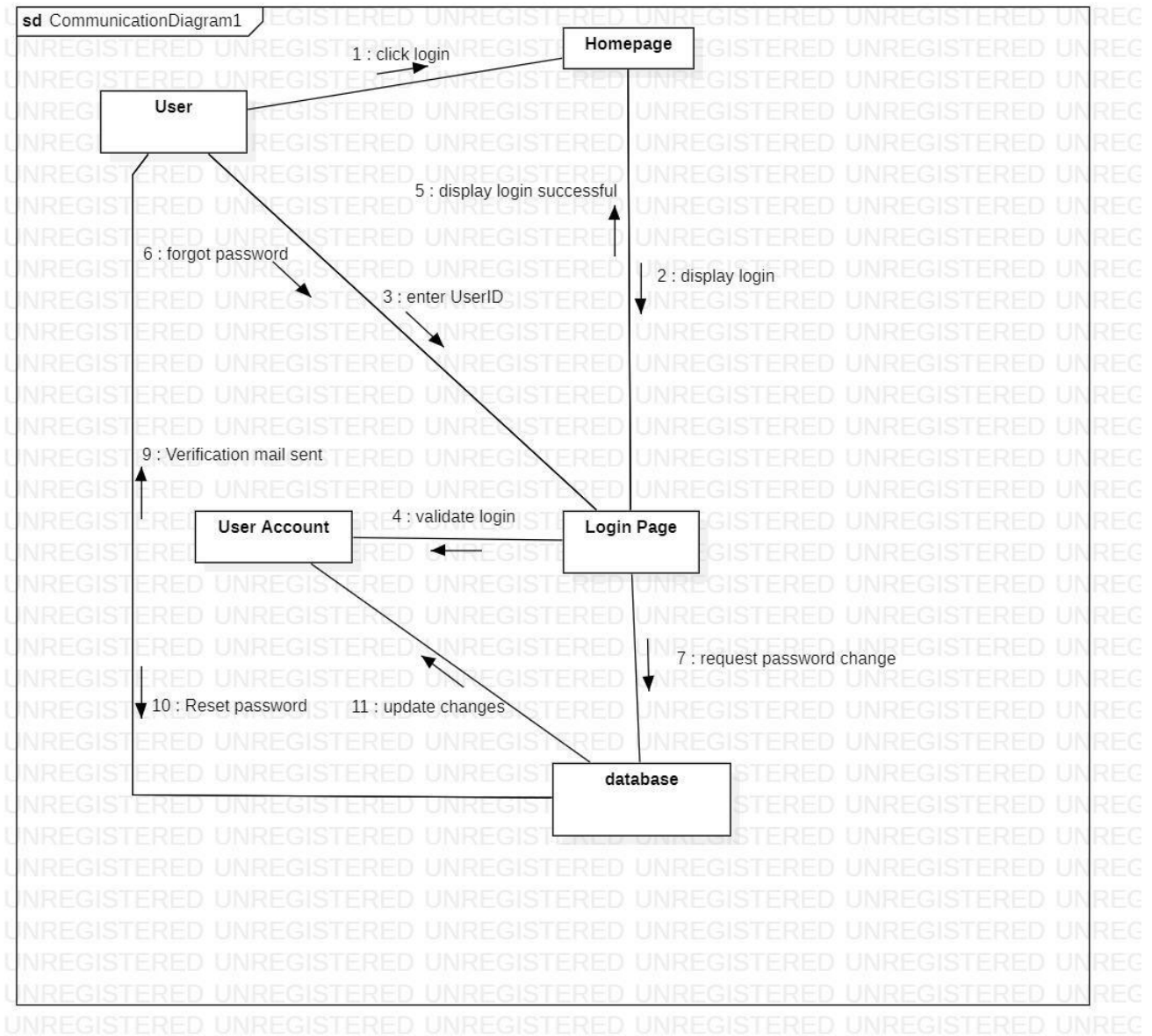
SI No	Register No	Name	Role
1	RA2011026010150	Sonti Sri Harshitha	Rep/Member
2	RA2011026010144	Diya Giri	Member
3	RA2011026010149	Bhogabhavish Dommeti	Member

Login Page

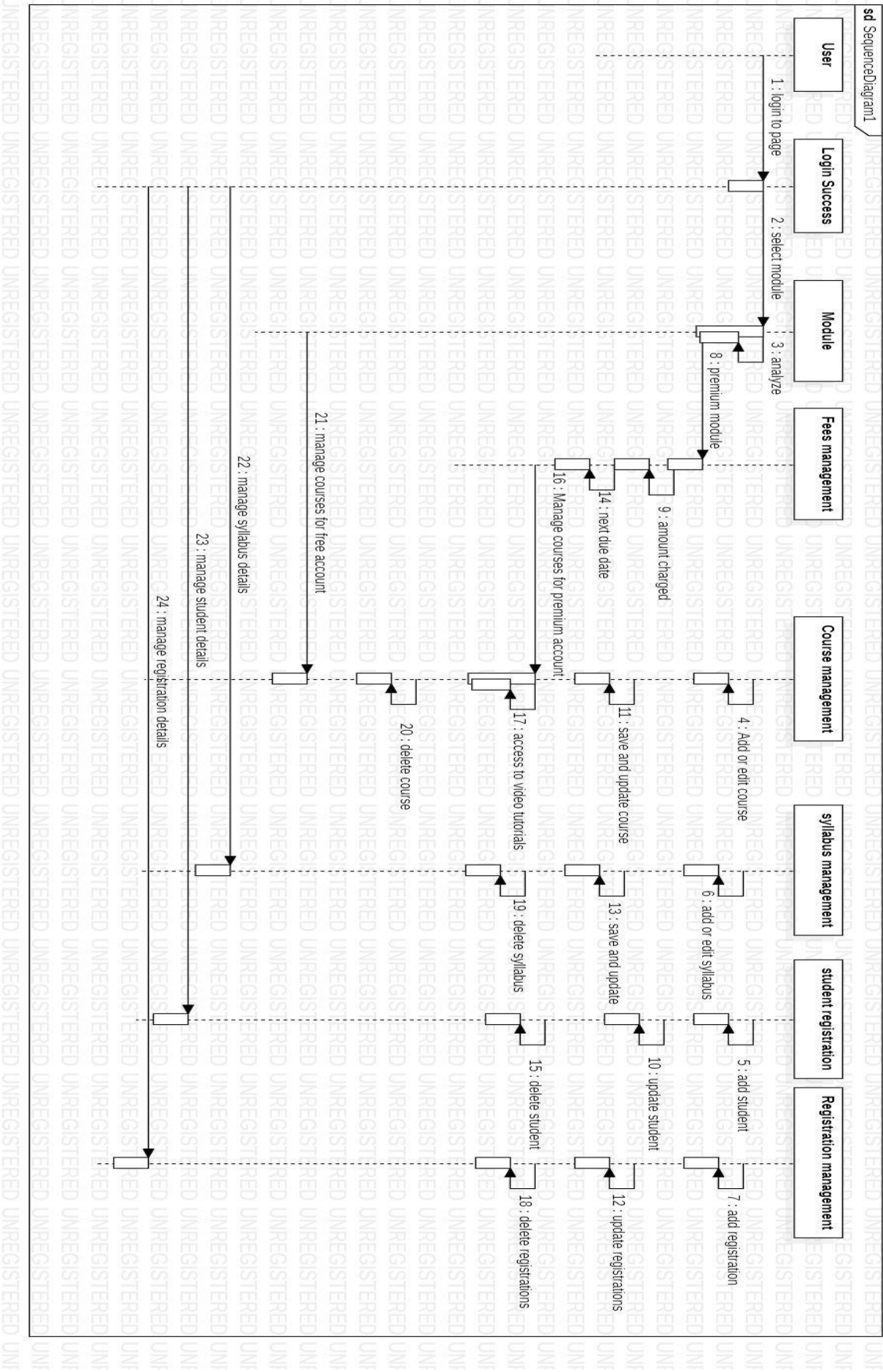
Sequence Diagram



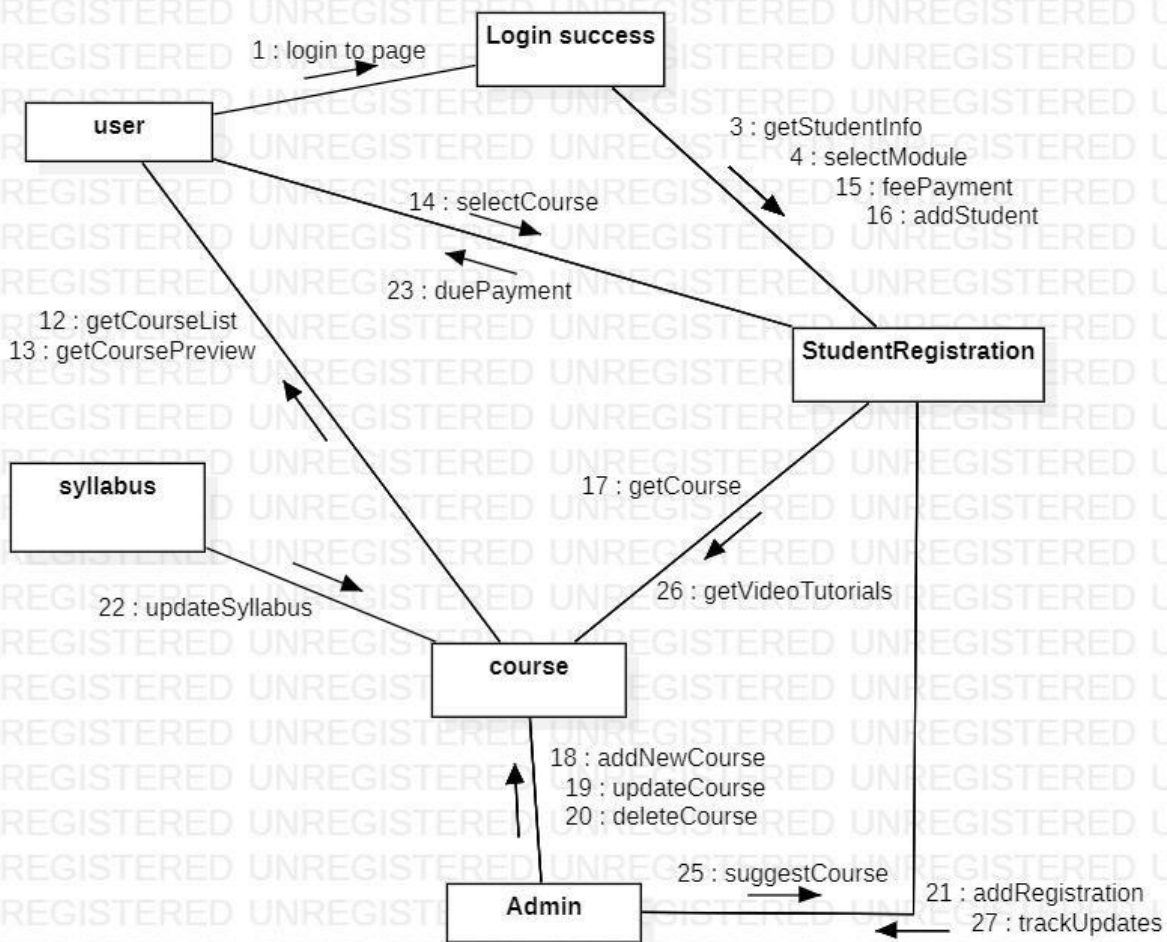
Collaboration Diagram



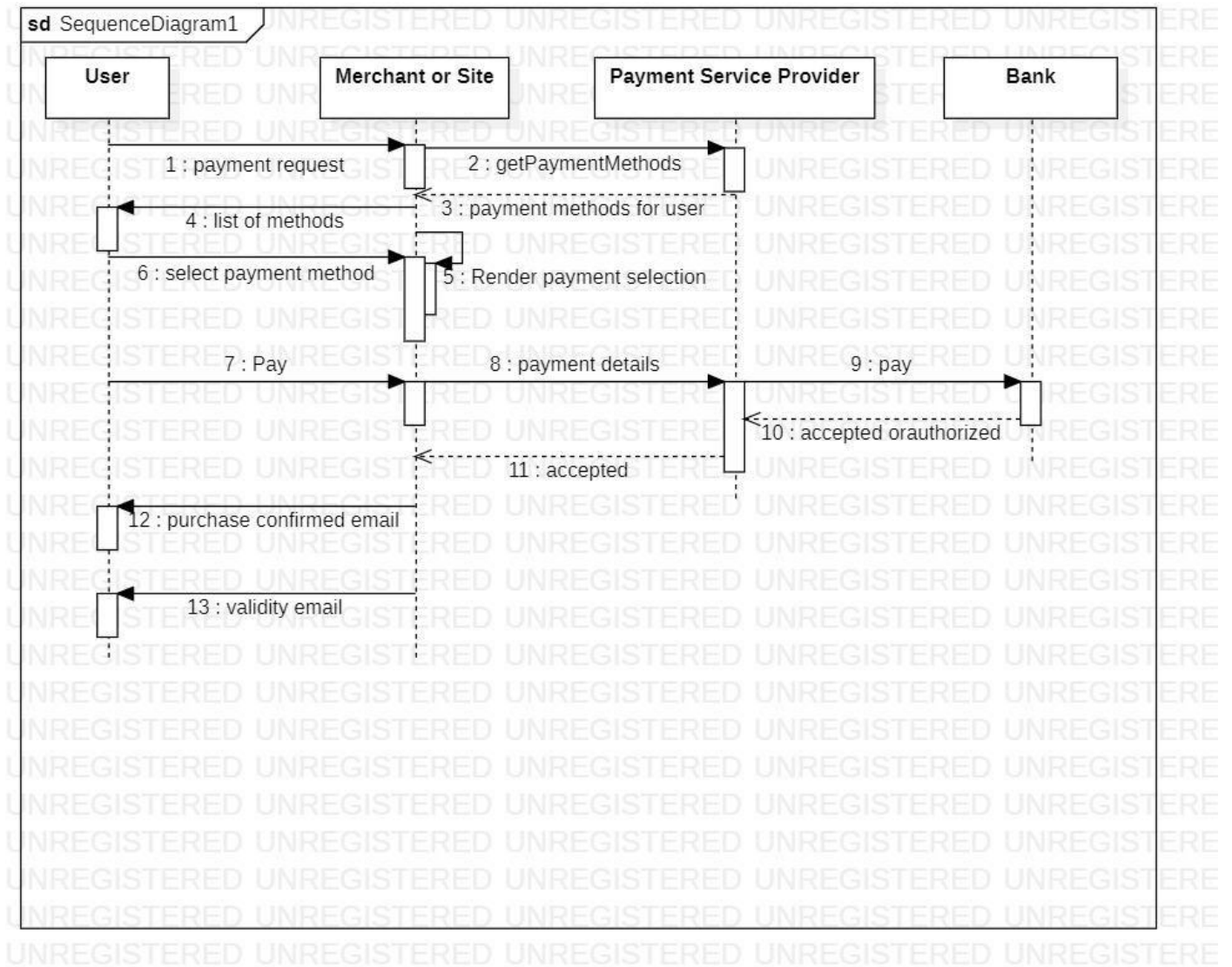
Course Registration Sequence Diagram



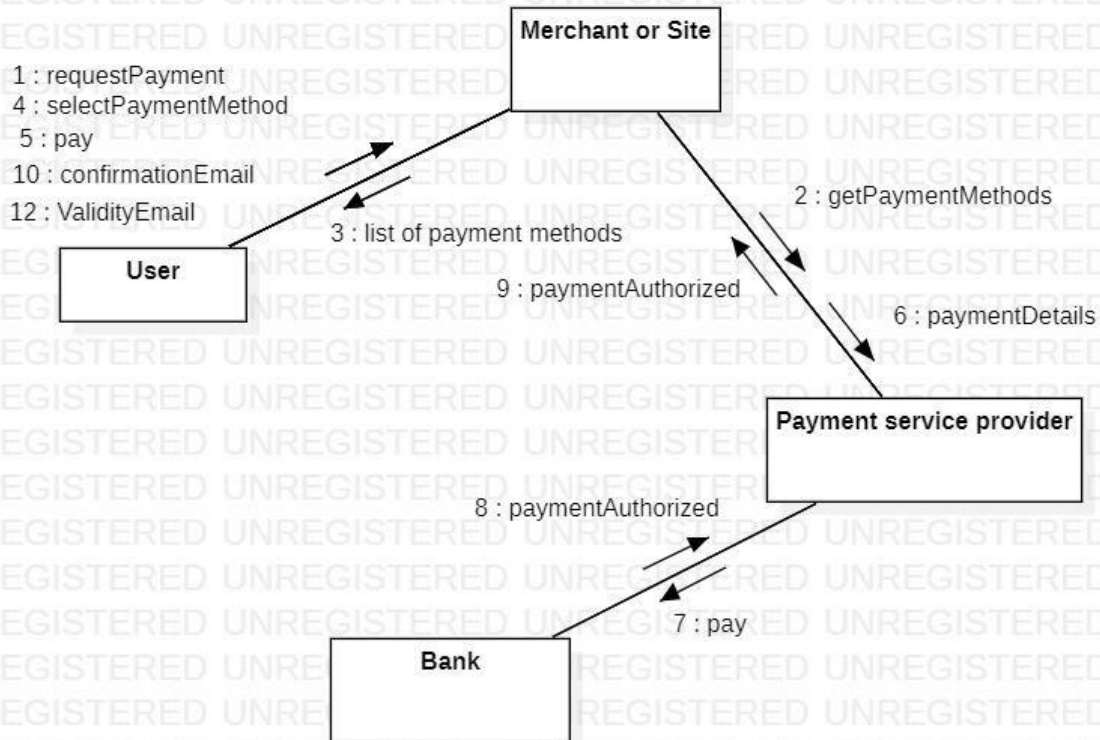
sd CommunicationDiagram1



Payment Gateway Sequence Diagram



sd CommunicationDiagram1



Result:

Thus, the sequence and collaboration diagrams were created for the project- StudyCipher.in

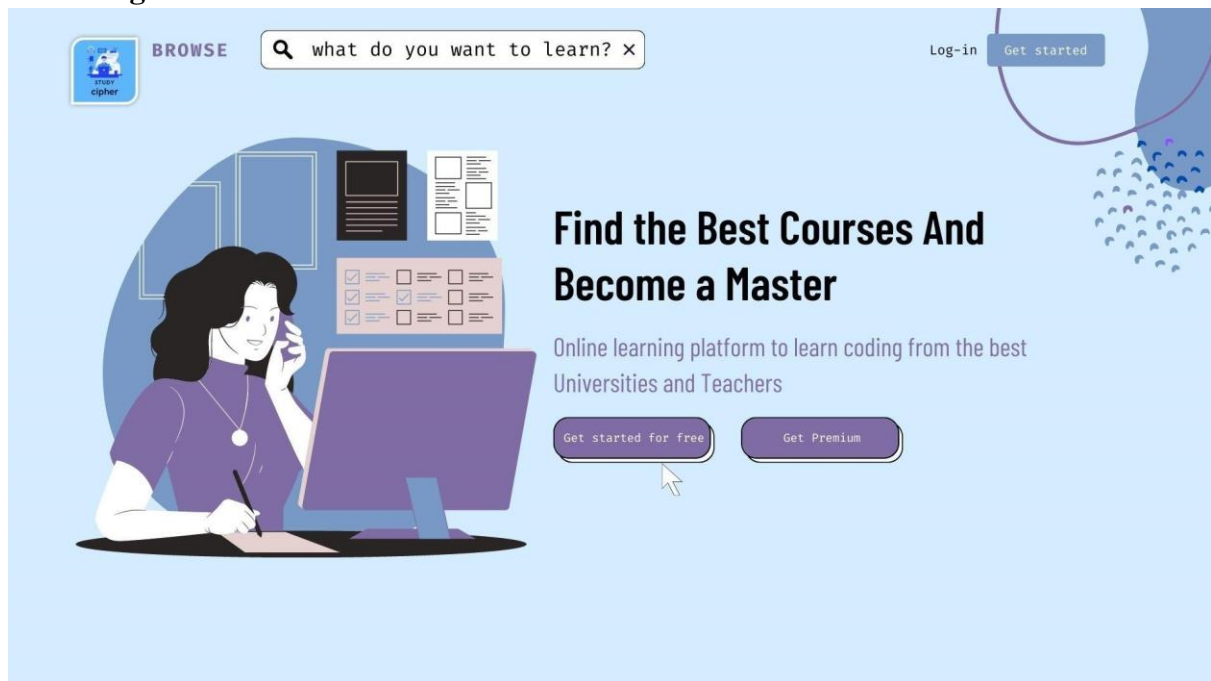
Aim

To develop the testing framework and/or user interface framework for the project
StudyCipher.in

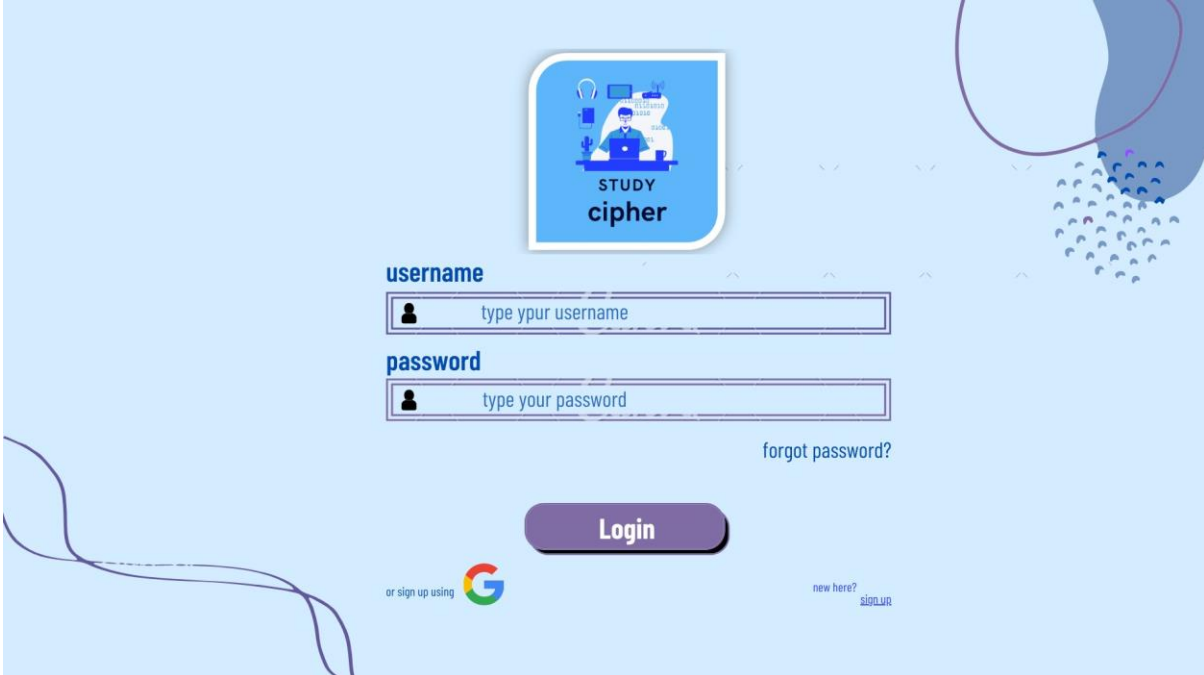
Team Members:

S No	Register No	Name	Role
1	RA2011026010150	Sonti Sri Harshitha	Rep/Member
2	RA2011026010144	Diya Giri	Member
3	RA2011026010149	Bhogabhavish Dommetti	Member

Home Page:



Login Page:



The login page features a light blue background with a stylized illustration of a person at a desk with a laptop and a lightbulb, labeled "STUDY cipher". Below this, there are input fields for "username" and "password", each with a placeholder "type your username" and "type your password" respectively. A "forgot password?" link is positioned to the right of the password field. A purple "Login" button is centered below the fields. At the bottom, there is a link "or sign up using" followed by a Google logo, and a link "new here? sign up" to the right.


STUDY
cipher

username
type your username

password
type your password

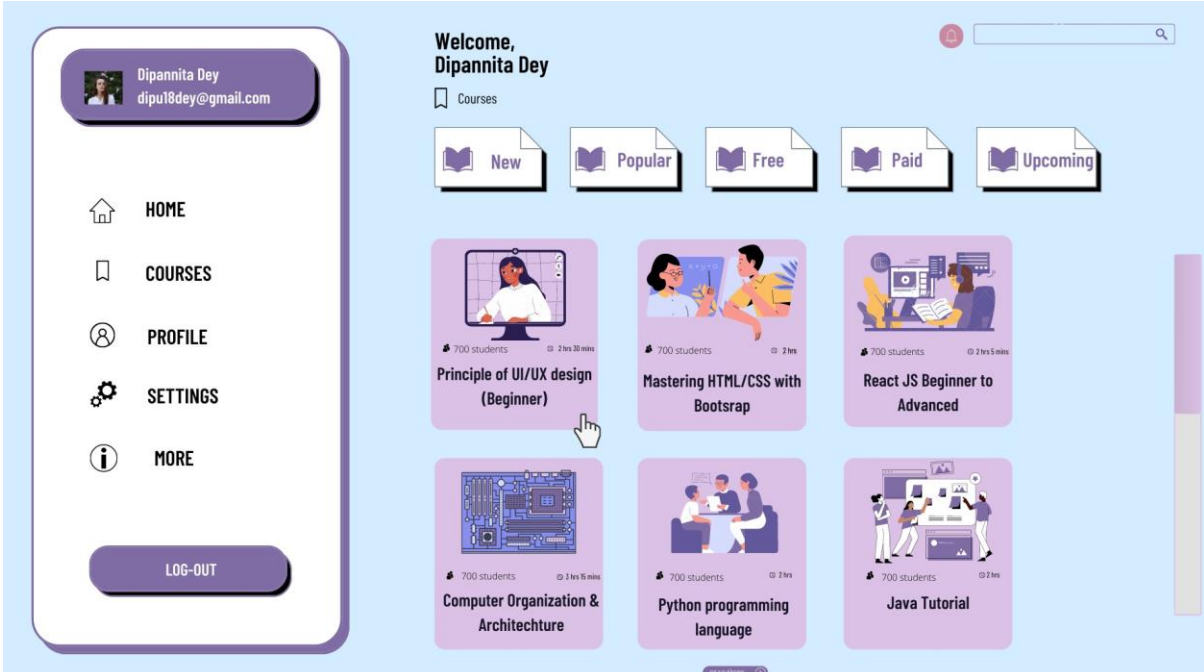
forgot password?

Login

or sign up using 

new here? [sign up](#)

Course Selection page:



The course selection page has a light blue background. On the left, a purple sidebar contains a user profile for "Dipannita Dey" with email "dipu18dey@gmail.com" and a list of navigation links: HOME, COURSES, PROFILE, SETTINGS, MORE, and a LOG-OUT button. The main content area is titled "Welcome, Dipannita Dey" and shows a "Courses" section with filters: New, Popular, Free, Paid, and Upcoming. Below the filters, there are six course cards, each with an illustration, title, student count, and duration. A hand cursor is pointing at the first course card.

Welcome, Dipannita Dey

Courses

New Popular Free Paid Upcoming

700 students 2 hrs 30 mins
Principle of UI/UX design (Beginner)

700 students 2 hrs
Mastering HTML/CSS with Bootstrap

700 students 2 hrs 5 mins
React JS Beginner to Advanced

700 students 3 hrs 15 mins
Computer Organization & Architecture

700 students 2 hrs
Python programming language

700 students 2 hrs
Java Tutorial

Executive Summary

Automation Testing is a software testing technique that performs using special automated testing software tools to execute a test case suite. The automation testing software can also enter test data into the System Under Test, compare expected and actual results and generate detailed test reports. Software Test Automation demands considerable investments of money and resources.

Successive development cycles will require execution of same test suite repeatedly. Using a test automation tool, it's possible to record this test suite and re-play it as required. Once the

test suite is automated, no human intervention is required. This improved ROI of Test Automation.

Test Plan

A test plan is a document detailing the objectives, resources, and processes for a specific test for a [software](#) or hardware product. The plan typically contains a detailed understanding of the eventual [workflow](#).

Scope of Testing

Functional:

All functional test cases are covered via manual testing Unit testing, integration testing, and functional testing are all covered. As a result, it is the best solution for functional and critical route test cases, which are extremely important in a project. In addition, testing all test cases takes less time.

Non-Functional:

All non-functional modules testing are covered

Types of Testing, Methodology, Tools

Black Box Testing: The Black Box Test is a test that only considers the external behavior of the system; the internal workings of the software are not taken into account. A tester provides input and observes the output generated by the system under test. Black box testing can be applied to three main types of tests: functional, non-functional, and regression testing.

White Box Testing: The White Box Test is a method used to test a software taking into consideration it's internal functioning. It is carried out by testers. Test cases for white box testing are derived from the design phase of the software development lifecycle.

Category	Methodology
Verify username	Black Box Testing
verify password	Black Box Testing
verify username password combination	Black Box Testing
user interface	Black Box Testing
sign-up option for new users	Black Box Testing
forgot password	Black Box Testing
reset password	Black Box Testing

required fields	Black Box Testing
email validation	Black Box Testing
phone no. validation	Black Box Testing
UI test case for payment gateway	Black Box Testing
functional test case for payment gateway	Black Box Testing
course registration	Black Box Testing
GUI usability test	Black Box Testing
Test scenarios for sending emails	Black Box Testing
Test cases for login page	White Box Testing
security test cases for payment gateway	White Box Testing
performance test	White Box Testing
backend	White Box Testing
frontend	White Box Testing

Result: Thus, the testing framework/user interface framework has been created for the StudyCipher.in.

Aim

To develop the test cases manual for the Studycipher.com

Team Members:

S No	Register No	Name	Role
1	RA2011026010150	Sonti Harshitha	Rep
2	RA2011026010144	Diya Giri	Member
3	RA2011026010149	Bhogabhavish	Member

Test Case

Functional Test Cases

Test ID (#)	Test Scenario	Test Case	Execution Steps	Expected Outcome	Actual Outcome	Status	Remarks
1.	Verify Username	1. length of username less than 5	1. User types in his username 2. User clicks on 'Login Button'	User shown error message	Invalid username	Pass	success
		2. length of username more than 12		User shown error message	Invalid username	Pass	success
		3. length of username between 5 and 12		username accepted	username accepted	Pass	success
		4. username in uppercase		User shown error message	Invalid username	Pass	success
		5. username in lowercase		username accepted	username accepted	Pass	success

		6. username repeated		User shown error message	Invalid username	Pass	success
		7. username unique		username accepted	username accepted	Pass	success
2.	Verify password	8. length of password less than 7	3. User types in his username and password 4. User clicks on 'Login Button'	User shown error message	Invalid password	Pass	success
		9. length of password more than 14		User shown error message	Invalid password	Pass	success
		10. length of password between 7 and 14		Password accepted	Password accepted	Pass	success
		11. password does not contain uppercase alphabet		User shown error message	Invalid password: Password must contain uppercase, lowercase, numerical characters	Pass	success
		12. password does not contain lowercase alphabet		User shown error message	Invalid password: Password must contain uppercase, lowercase, numerical characters	Pass	success
		13. password does not have a numerical character		User shown error message	Invalid password	Pass	success
		14. password contains a special character		User shown error message	Invalid password	Pass	success

		15. the password contains uppercase, lowercase, and		Password accepted	Password accepted	Pass	success
		numbers but not special characters					
		16. password matches username		User shown error message	Invalid password: password should not match username	Pass	success
		17. password does not match username		Password accepted	Password accepted	Pass	success
3	Verify username and password combination	18. correct username different password	1. Enterusername 2. Enterpassword 3. Click on Login Button	Invalid credentials	Invalid credentials: Check password and username	Pass	success
		19. correct password different username		Invalid credentials	Invalid credentials: Check password and username	Pass	success
		20. wrong username and wrong password		Invalid credentials	Invalid credentials: Check password and username	Pass	success
		21. correct username with corresponding password		Valid credentials	Username and password accepted	Pass	success
		22. username entered but no password		Invalid credentials	Invalid credentials: Check password and username	Pass	success

		23. password entered but no username		Invalid credentials	Invalid credentials: Check password and username	Pass	success
		24. unregistered username		Unregistered user	Username not found	Pass	success

		25. Check if the password is entered in encrypted		Password is entered in encrypted form	Password is entered in encrypted form	Pass	success
4	User Interface	26. Check all the text boxes and buttons	Check Page	<ul style="list-style-type: none"> UI should be perfect Text boxes and button should be aligned 	Text boxes aligned	Pass	success
		27. Field labels should be standard		the field accepting the user's first name should be labeled properly as 'First Name'.	field labels standard	Pass	success
5.	Signup Option for new users	28. Check whether the signup link for the new user is working	Check whether the signup link for the new user is working	Clicking signup link takes the user to signup page successfully	Clicking signup link takes the user to signup page successfully	Pass	success
6.	Forgot Password	29. Verify user should get an error message when he/she enters not registered email id.	1. Click on the Forgot password link. 2. Enter unregistered email id and click on the send button.	User should get an error message.	Unregistered email id	Pass	success

		31. Verify Forgot Password sends a forgot password link.	1. Click on the Forgot Password link. 2. Enter Email and click on the send button.	Forgot Password sends a forgot password link	Forgot Password sends a forgot password link	Pass	success
7.	Reset Password	32. Verify user should get an error message when he/she enters the previous password.	1. Go to the reset password link. 2. Enter the previous password. 3. Click on the Reset Password button.	User should get an error message.	Error: Enter new password	Pass	success

		33. Verify user able to reset his/her password	1. Go to the reset password link. 2. Enter a new password and a confirm password. 3. Click on the Reset Password button.	Users should get the success message and the password should get reset.	Successful: Password reset	Pass	success
		34. Verify user should get an error message when password and confirm password does not match	1. Go to the reset password link. 2. Enter a different new password and a confirm password. 3. Click on the Reset Password button.	Users should get an error message.	Error: passwords do not match	Pass	success

		35. Verify user should be able to login with a new password.	1. Go to the reset password link. 2. Enter a new password and a confirm password. 3. Click on the Reset Password button. 4. Log in by using the new password.	User should be able to login	Login successful	Pass	success
		36. Verify if the user enters a new password that does not cover the basic requirements of password then the user should be displayed an error message	1. Go to the reset password link. 2. Enter a new password that does not cover the basic requirements. 3. Click on the Reset Password.	Users should get an error message.	Invalid password	Pass	success
8.	Required Fields	37. Verify if blank spaces	1. Go to the Site.	Those blank spaces should	Blank spaces trimmed	Pass	success

		are passed in required fields.	2. Passed blank spaces in required fields. 3. Click on the Login button	trim and Validation error message for required fields should be visible.			
9.	Welcome Email	38. Verify new users should get the welcome email once after the login.	1. Go to the Email. 2. Enter Login Email.	Users should get a welcome email on his/her email id.	user gets a welcome email	Pass	success

10.	Required fields for sign-up page	39.Check the required fields by not filling any data	1. Do not enter any value in the field. 2. Click on the Register button.	It should show a mandatory symbol (*) on mandatory fields.	mandatory symbol (*) on mandatory fields.	Pass	success
11.	Email validation	40.Check the Email text field that has an Email address without @ symbol.	1. Enter Invalid Emails 2. Click on the Register Button.	Invalid email message	Improper email address	Pass	success
		41.Check the Email text field that has a random string instead of a real email.			Improper email address	Pass	success
		42.Check the Email text field that has @ symbol written in words.			Improper email address	Pass	success
		43.Check the Email text field that has a missing dot in the email address.			Improper email address	Pass	success
		44. Check all the valid emails			Valid email address	Pass	success

12.	Phone Number validation	45.Check the phone number when passing alphanumeric data	1. Enter alphanumeric data in phone field 2. Click on Register button	Invalid phone number error	Invalid phone number	Pass	success
-----	-------------------------	--	--	----------------------------	----------------------	------	---------

		46. Check the phone number when it does not pass country code	1. Enter valid phone number without country code 2. Click on Register button	It should show the invalid message for country code	Invalid phone number	Pass	success
		47. Check the phone number when passing country code	1. Enter valid phone number with country code 2. Click on Register button	Valid phone number	Phone number accepted	Pass	success
		48. Verify if the length of the phone number is incorrect i.e. less than 10.	Enter phone number less than 10 digits.	Invalid phone number	Invalid phone number	Pass	success
		49. Verify if the length of the phone number is incorrect i.e. more than 10	Enter phone number more than 10 digits.	Valid phone number	Invalid phone number	Pass	success
13.	UI Test Cases for Payment Gateway	50. Check if all the labels and boxes are visible	Click on payment gateway	all the labels and boxes are visible	all the labels and boxes are visible	Pass	success
		51. Verify the payment gateway company logo or name	check the company logo	payment gateway company logo in correct position	payment gateway company logo in not correct position	Fail	Failure
		52. Check if the credit card number is masked or not	click on credit card option	credit card number is masked	credit card number is masked	Fail	Failure

		53. Verify that all the payment options are visible	click on payment options	all the payment options are visible	all the payment options are visible	Fail	Failure
		54. Check if the color scheme matches the specifications.	-	color scheme matches the specifications.	color scheme matches the specifications.	Fail	Failure
14.	Functional Test Cases for Payment Gateway	55. Check if each of the payment options is selectable.	click on payment option	each of the payment options is selectable.	each of the payment options is selectable.	Fail	Failure
		56. Check if the default credit/debit card gets automatically added.	click on credit card/ debit card payment option	default credit/debit card gets automatically added.	default credit/debit card gets automatically added.	Fail	Failure
		57. Verify that the page does not proceed to the payment page before all the mandatory information is filled.	click on pay before filling up mandatory fields	the page does not proceed to the payment page before all the mandatory information is filled.	the page does not proceed to the payment page before all the mandatory information is filled.	Fail	Failure
		58. Check if multiple cards can be saved as default or not.	click on the card which the user wish to save	the page does not proceed to the payment page before all the mandatory information is filled.	the page does not proceed to the payment page before all the mandatory information is filled.	Pass	success

59.Check if the payment is not getting processed for null values in the cart.	-	the page does not proceed to the payment page before all the mandatory information is filled.	the page does not proceed to the payment page before all the mandatory	Pass	success
---	---	---	--	------	---------

			information is filled.		
60.Verify if multiple payment options are not getting selected. Only one at a time.	click on the payment option which the user wishes	the page does not proceed to the payment page before all the mandatory information is filled.	the page does not proceed to the payment page before all the mandatory information is filled.	Pass	success
61.Verify if multiple payment options are not getting selected. Only one at a time.	click on the payment option which the user wishes	the page does not proceed to the payment page before all the mandatory information is filled.	the page does not proceed to the payment page before all the mandatory information is filled.	Pass	success
62.Credit/debit card number+wrong date+ right cvv	Enter correct details of the credit/debit card	the page does not proceed to the payment page before all the mandatory information is filled.	the page does not proceed to the payment page before all the mandatory information is filled.	Pass	success

63.Credit/debit card number+ right date+ wrong cvv	Enter correct details of the credit/debit card	the page does not proceed to the payment page before all the mandatory information is filled.	the page does not proceed to the payment page before all the mandatory information is filled.	Pass	success
64.Wrong credit/debit card number+ right date+ right cvv	Enter correct details of the credit/debit card	the page does not proceed to the payment page before all the mandatory information is filled.	the page does not proceed to the payment page before all the mandatory	Pass	success

			information is filled.		
65.Check if the user gets a confirmation message or mail if the payment is successful.	Click on the submit and enter otp received	the page does not proceed to the payment page before all the mandatory information is filled.	the page does not proceed to the payment page before all the mandatory information is filled.	Pass	success
66.Check if a pop-up appears if the session has expired.	Enter within the otp time given	the page does not proceed to the payment page before all the mandatory information is filled.	the page does not proceed to the payment page before all the mandatory information is filled.	Pass	success

		67.verify that the user gets information about unsuccessful payment	-	the page does not proceed to the payment page before all the mandatory information is filled.	the page does not proceed to the payment page before all the mandatory information is filled.	Pass	success
		68.Check if the user is directed back to the application after a successful transaction	Click done after the transaction is processed	the page does not proceed to the payment page before all the mandatory information is filled.	the page does not proceed to the payment page before all the mandatory information is filled.	Pass	success

		Amount values should be displayed with the correct currency symbols.	Select the desired course by the user	the page does not proceed to the payment page before all the mandatory information is filled.	the page does not proceed to the payment page before all the mandatory information is filled.	Pass	success
15.	Security Test Cases for Payment Gateway	69.Verify if the OTP reaches only the verified number linked with the card	Enter the details of the credit/debit and enter the otp correctly after received	the page does not proceed to the payment page before all the mandatory information is filled.	the page does not proceed to the payment page before all the mandatory information is filled.	Pass	success

		70. Verify if the transaction gets canceled if the wrong OTP is entered.	Enter the details of the credit/debit and enter the otp correctly after received	the page does not proceed to the payment page before all the mandatory information is filled.	the page does not proceed to the payment page before all the mandatory information is filled.	Pass	success
		71. Verify that the person gets notified if the wrong OTP is entered.	Enter the details of the credit/debit and enter the otp correctly after received	the page does not proceed to the payment page before all the mandatory information is filled.	the page does not proceed to the payment page before all the mandatory information is filled.	Pass	success
		72. Check if the amount deducted is the same as the amount mentioned.	Enter the details of the credit/debit and enter the otp correctly after received	the page does not proceed to the payment page before all the mandatory information is filled.	the page does not proceed to the payment page before all the mandatory information is filled.	Pass	success
		73. Check if the pop-up blocker during the	Enter the details of the credit/debit	the page does not proceed to the payment	the page does not proceed to	Pass	success

		payment is functional.	and enter the otp correctly after received	page before all the mandatory information is filled.	the payment page before all the mandatory information is filled.		
	Course Registration	74. Verify the page has both submit and cancel/reset buttons at the end.	Click on the desired operation asked by the user	The page will direct to the desired operation asked by the user	The page will direct to the desired operation asked by the user	Pass	success

75.Drop-down fields should have the first entry as blank or text like “Select”.	Click on he desired operation asked by the user	The page will direct to the desired operation asked by the user	The page will direct to the desired operation asked by the user	Pass	success
76. ‘Delete functionality’ for any record on the page should ask for a confirmation.	Click on he desired operation asked by the user	The page will direct to the desired operation asked by the user	The page will direct to the desired operation asked by the user	Pass	success
77.Check that clicking the cancel/reset button after entering all the required fields, cancels the submit request, and reset all the fields.	Click on he desired operation asked by the user	The page will direct to the desired operation asked by the user	The page will direct to the desired operation asked by the user	Pass	success
78. Check that leading and trailing spaces are trimmed.	Click on he desired operation asked by the user	The page will direct to the desired operation asked by the user	The page will direct to the desired operation asked by the user	Pass	success
79. Verify that all the specified fields are present on the registration page.	Click on he desired operation asked by the user	The page will direct to the desired operation asked by the user	The page will direct to the desired operation	Pass	success
			asked by the user		

		80. Check that dropdown, radio buttons and checkboxes, etc fields are displayed and working	Click on he desired operation asked by the user	The page will direct to the desired operation asked by the user	The page will direct to the desired operation asked by the user	Pass	success
		81. Verify that clicking submit button after entering all the required fields, submits the data to the server.	Click on he desired operation asked by the user	The page will direct to the desired operation asked by the user	The page will direct to the desired operation asked by the user	Pass	success
		82. Check if the downloadable files are pointing to the correct file path.	Click on he desired operation asked by the user	The page will direct to the desired operation asked by the user	The page will direct to the desired operation asked by the user	Pass	success
		83.The user should not be able to submit a page twice by pressing the submit button in quick succession.	Click on he desired operation asked by the user	The page will direct to the desired operation asked by the user	The page will direct to the desired operation asked by the user	Pass	success
	GUI and Usability Test Scenarios	84. The scrollbar should be enabled only when necessary.	According to the users wish the operations needs to be executed	The page will act according to the user desired operations	The page will act according to the user desired operations	Fail	Failure

85. Upon clicking on the input text field, the mouse arrow pointer should get changed to the cursor.	According to the users wish the operations needs to be executed	The page will act according to the user desired operations	The page will act according to the user desired operations	Fail	Failure
--	---	--	--	------	---------

86. Upon clicking on the input text field, the mouse arrow pointer should get changed to the cursor.	According to the users wish the operations needs to be executed	The page will act according to the user desired operations	The page will act according to the user desired operations	Fail	Failure
87. The user should not be able to type in the drop-down select list.	According to the users wish the operations needs to be executed	The page will act according to the user desired operations	The page will act according to the user desired operations	Fail	Failure
88. Drop-down field values should be displayed in defined sort order.	According to the users wish the operations needs to be executed	The page will act according to the user desired operations	The page will act according to the user desired operations	Fail	Failure
89. Drop-down field values should be displayed in defined sort order.	According to the users wish the operations needs to be executed	The page will act according to the user desired operations	The page will act according to the user desired operations	Fail	Failure

		90. Check if the correct fields are highlighted in case of errors.	According to the users wish the operations needs to be executed	The page will act according to the user desired operations	The page will act according to the user desired operations	Fail	Failure
		91. Page text should be left-justified.	According to the users wish the operations needs to be executed	The page will act according to the user desired operations	The page will act according to the user desired operations	Fail	Failure

		92. The user should be able to select only one radio option and any combination for checkboxes.	According to the users wish the operations needs to be executed	The page will act according to the user desired operations	The page will act according to the user desired operations	Fail	Failure
		93. Check if the default window size is correct.	According to the users wish the operations needs to be executed	The page will act according to the user desired operations	The page will act according to the user desired operations	Fail	Failure
		94. Check the window to minimize, maximize, and close functionality.	According to the users wish the operations needs to be executed	The page will act according to the user desired operations	The page will act according to the user desired operations	Fail	Failure

	Test Scenarios for Sending Emails	95. The email template should use standard CSS for all emails.	The correct information with design need to be executed	{Firstname} {Last Name} should be replaced with an individual's first and last name properly for all recipients.	{Firstname} {Last Name} should be replaced with an individual's first and last name properly for all recipients.	pass	success
		96. The email subject should not be blank.	The correct information with design need to be executed	{Firstname} {Last Name} should be replaced with an individual's first and last name properly for all recipients.	{Firstname} {Last Name} should be replaced with an individual's first and last name properly for all recipients.	pass	success

					recipients.		
		97. The email sender's name should not be blank.	The correct information with design need to be executed	{Firstname} {Last Name} should be replaced with an individual's first and last name properly for all recipients.	{Firstname} {Last Name} should be replaced with an individual's first and last name properly for all recipients.	pass	success

		98.The email need to be sent to the user	The correct information with design need to be executed	{Firstname} {Last Name} should be replaced with an individual's first and last name properly for all recipients.	{Firstname} {Last Name} should be replaced with an individual's first and last name properly for all recipients	pass	success
		99.Placeholder fields used in the email template should be replaced with actual values	The correct information with design need to be executed	{Firstname} {Last Name} should be replaced with an individual's first and last name properly for all recipients.	{Firstname} {Last Name} should be replaced with an individual's first and last name properly for all recipients	pass	success
		100.When sending mass emails to different users need to go to everybody	The correct information with design need to be executed	Firstname} {Last Name} should be replaced with an	Firstname} {Last Name} should be replaced with an	pass	success
				individual's first and last name properly for all recipients	individual's first and last name properly for all recipients		

Non-Functional Test Cases

Test ID (#)	Test Scenario	Test Case	Execution Steps	Expected Outcome	Actual Outcome	Status	Remarks
-------------	---------------	-----------	-----------------	------------------	----------------	--------	---------

	Non-functional Security Test Cases for Login Page	1. Verify that clicking on the browser back button after successful logout should not take the User to a logged-in mode	Enter correct details of the user by the user which are asked by the system	Direct to the homepage if the user exists	Direct to the homepage if the user exists	pass	success
		2. Verify that there is a limit on the total number of unsuccessful login attempts	Enter correct details of the user by the user which are asked by the system	Direct to the homepage if the user exists	Direct to the homepage if the user exists	pass	success
		3. Verify the password can be copy-pasted. System shouldn't allow users to copy paste password.	Enter correct details of the user by the user which are asked by the system	Direct to the homepage if the user exists	Direct to the homepage if the user exists	pass	success
		4. Verify that the "Remember password" checkbox is	Enter correct details of the user by the user which are asked by the system	Direct to the homepage if the user exists	Direct to the homepage if the user exists	pass	success
		unselected by default					
		5. Verify the Login page against SQL injection attack.	Enter correct details of the user by the user which are asked by the system	Direct to the homepage if the user exists	Direct to the homepage if the user exists	pass	success

		6. Verify the implementation of SSL certificate.	Enter correct details of the user by the user which are asked by the system	Direct to the homepage if the user exists	Direct to the homepage if the user exists	pass	success
		7. Verify the implementation of SSL certificate.	Enter correct details of the user by the user which are asked by the system	Direct to the homepage if the user exists	Direct to the homepage if the user exists	pass	success
		8. Check if the downloadable files are pointing to the correct file path.	Enter correct details of the user by the user which are asked by the system	Direct to the homepage if the user exists	Direct to the homepage if the user exists	pass	success
	Security Test Cases for Payment Gateway	9. Verify if the credit card information is in a masked form.	The details of the payment need to be secured	The information of the credit/debit card will not be viewed by others and is secured	The information of the credit/debit card will not be viewed by others and is secured	pass	success
		10. Check that the payment is happening through a secured channel.	check that the link starts with HTTPS instead of the regular HTTP pages.	The information of the credit/debit card will not be viewed by others and is secured	The information of the credit/debit card will not be viewed by others and is secured	pass	success
					others and is secured		

		11. Verify if the transaction gets canceled if the wrong OTP is entered.	-	The information of the credit/debit card will not be viewed by others and is secured	The information of the credit/debit card will not be viewed by others and is secured	pass	success
		12. Verify the bank name reflecting on the payment page is the same as the user.	Enter the credit/debit card details correctly	The information of the credit/debit card will not be viewed by others and is secured	The information of the credit/debit card will not be viewed by others and is secured	pass	success
	Performance Test	13. Check if the payment gateway does not crash if multiple users are using it simultaneously.	Check whether all the operations made by the user are running accurately	The operations and the desired inputs given by the user will be given quickly and correctly	The operations and the desired inputs given by the user will be given quickly and correctly	fail	failure
		14. Check if the processor is responding quickly.	Check whether all the operations made by the user are running accurately	The operations and the desired inputs given by the user will be given quickly and correctly	The operations and the desired inputs given by the user	fail	failure

			will be given quickly and correctly		
15. Verify the time taken to reach the payment gateway from the application's page is the same as specified.	Check whether all the operations made by the user are running accurately	The operations and the desired inputs given by the user will be given quickly and correctly	The operations and the desired inputs given by the user will be given quickly and correctly	fail	failure
16. Verify if the page is secured from brute force or SQL injection attacks.	Check whether all the operations made by the user are running accurately	The operations and the desired inputs given by the user will be given quickly and correctly	The operations and the desired inputs given by the user will be given quickly and correctly	fail	failure
17. Check if the payment is happening even after the session expires.	Check whether all the operations made by the user are running accurately	The operations and the desired inputs given by the user will be given quickly and correctly	The operations and the desired inputs given by the user will be given quickly and correctly	fail	failure

18. Check if the page loads on slow connections.	Check whether all the operations made by the user are	The operations and the desired inputs given by the user will be given quickly and correctly	The operations and the desired inputs	fail	failure
	running accurately		given by the user will be given quickly and correctly		
19. Check CPU and memory usage under peak load conditions.	Check whether all the operations made by the user are running accurately	The operations and the desired inputs given by the user will be given quickly and correctly	The operations and the desired inputs given by the user will be given quickly and correctly	fail	failure
20. Check if the compiler is working without any problems.	Check whether all the operations made by the user are running accurately	The operations and the desired inputs given by the user will be given quickly and correctly	The operations and the desired inputs given by the user will be given quickly and correctly	fail	failure

		21.Check whether the user asked information is correctly given	Check whether all the operations made by the user are running accurately	The operations and the desired inputs given by the user will be given quickly and correctly	The operations and the desired inputs given by the user will be given quickly and correctly	fail	failure
--	--	--	--	---	---	------	---------

Result:

Thus, the test case manual has been created for the Studycipher.com

Aim

To prepare the manual test case report for the <project name>

Category	Progress Against Plan	Status
1. length of username less than 5	Green	completed
1. length of username more than 12	Green	completed
1. length of username between 5 and 12	Green	completed
1. username in uppercase	Green	completed
1. username in lowercase	Green	completed

6. username repeated	Green	Completed
----------------------	-------	-----------

Team Members:

S No	Register No	Name	Role
1	RA2011026010150	Sonti Sri Harshitha	Rep/Member
2	RA2011026010144	Diya Giri	Member
3	RA2011026010149	Bhogabhavish	Member

Functional Test Cases

7. username unique	Green	completed
8. length of password less than 7	Green	completed
9. length of password more than 14	Green	completed
10. length of password between 7 and 14	Green	completed
11. password does not contain uppercase alphabet	Green	completed
12. password does not contain lowercase alphabet	Green	completed
13. password does not have a numerical character	Green	completed
14. password contains a special character	Green	completed
15. the password contains uppercase, lowercase, and numbers but not special characters	Green	completed
16. password matches username	Green	completed
17. password does not match username	Green	completed
18. correct username different password	Green	completed
19. correct password different username	Green	completed
20. wrong username and wrong password	Green	completed
21. correct username with corresponding password	Green	completed
22. username entered but no password	Green	completed
23. password entered but no username	Green	completed

24. unregistered username	Green	completed
------------------------------	-------	-----------

25. Check if the password is entered in encrypted	Green	completed
26. Check all the text boxes and buttons	Green	completed
Field labels should be standard e.g., the field accepting the user's first name should be labeled properly as 'First Name'.	Green	completed
27. Check whether the signup link for the new user is working	Green	completed
28. Verify user should get an error message when he/she enters not registered email id.	Green	completed
29. Verify Forgot Password sends a forgot password link.	Green	completed
30. Verify user should get an error message when he/she enters the previous password.	Green	completed
31. Verify user able to reset his/her password	Green	completed
32. Verify user should get an error message when password and confirm password does not match	Green	completed
33. Verify user should be able to login with a new password.	Green	completed
34. Verify if the user enters a new password that does not cover the basic requirements of password then the user should be displayed error message	Green	completed

35. Verify if blank spaces are passed in required fields.	Green	completed
---	-------	-----------

36. Verify new users should get the welcome email once after the login.	Green	completed
37. Check the required fields by not filling any data	Green	completed
38. Check the Email text field that has an Email address without @ symbol.	Green	completed
39. Check the Email text field that has a random string instead of a real email.	Green	completed
40. Check the Email text field that has @ symbol written in words.	Green	completed
41. Check the Email text field that has a missing dot in the email address.	Green	completed
42. Check all the valid emails	Green	completed
43. Check the phone number when passing alphanumeric data	Amber	In progress
44. Check the phone number when it does not pass country code	Amber	In progress
45. Check the phone number when passing country code	Amber	In progress
46. Verify if the length of the phone number is incorrect i.e. less than 10.	Amber	In progress
47. Verify if the length of the phone number is incorrect i.e. more than 10	Amber	In progress

48. Check if all the labels and boxes are visible	Amber	In progress
---	-------	-------------

49. Verify the payment gateway company logo or name	Amber	In progress
50. Check if the credit card number is masked or not	Amber	In progress
51. Verify that all the payment options are visible	Amber	In progress
52. Check if the color scheme matches the specifications.	Amber	In progress
53. Check if each of the payment options is selectable.	Amber	In progress
54. Check if the default credit/debit card gets automatically added.	Amber	In progress
55. Verify that the page does not proceed to the payment page before all the mandatory information is filled.	Amber	In progress
56. Check if multiple cards can be saved as default or not.	Amber	In progress
57. Check if the payment is not getting processed for null values in the cart.	Amber	In progress
58. Verify if multiple payment options are not getting selected. Only one at a time.	Amber	In progress
59. Verify if multiple payment options are not getting selected. Only one at a time.	Amber	In progress
60. Credit/debit card number+wrong date+right cvv	Amber	In progress

61.Credit/debit card number+ right date+ wrong cvv	Amber	In progress
--	-------	-------------

62.Wrong credit/debit card number+ right date+ right cvv	Amber	In progress
63.Check if the user gets a confirmation message or mail if the payment is successful.	Amber	In progress
64.Check if a pop-up appears if the session has expired.	Amber	In progress
65.verify that the user gets information about unsuccessful payment	Amber	In progress
66.Check if the user is directed back to the application after a successful transaction	Amber	In progress
Amount values should be displayed with the correct currency symbols.	Amber	In progress
67.Verify if the OTP reaches only the verified number linked with the card	Amber	In progress
68.Verify if the transaction gets canceled if the wrong OTP is entered.	Amber	In progress
69.Verify that the person gets notified if the wrong OTP is entered.	Amber	In progress
70.Check if the amount deducted is the same as the amount mentioned.	Amber	In progress
Check if the popup blocker during the payment is functional.	Red	Not started

Verify the page has both submit and	Red	Not started
--	-----	-------------

cancel/reset buttons at the end.		
Drop-down fields should have the first entry as blank or text like "Select".	Red	Not started
'Delete functionality' for any record on the page should ask for a confirmation.	Red	Not started
	Red	Not started
	Red	Not started
Check that clicking the cancel/reset button after entering all the required fields, cancels the submit request, and reset all the fields.	Red	Not started
Check that leading and trailing spaces are trimmed.	Red	Not started
Verify that all the specified fields are present on the registration page.	Red	Not started
Check that dropdown, radio buttons and checkboxes, etc fields are displayed and working	Red	Not started
Verify that clicking submits button after entering all the required fields, submits the data to the server.	Red	Not started

Check if the
downloadable files are

Red

Not started

pointing to the correct file path.		
The user should not be able to submit a page twice by pressing the submit button in quick succession.	Red	Not started
The scrollbar should be enabled only when necessary.	Red	Not started
Upon clicking on the input text field, the mouse arrow pointer should get changed to the cursor.	Red	Not started
Upon clicking on the input text field, the mouse arrow pointer should get changed to the cursor.	Red	Not started
The user should not be able to type in the drop-down select list.	Red	Not started
Drop-down field values should be displayed in defined sort order.	Red	Not started
Drop-down field values should be displayed in defined sort order.	Red	Not started
Check if the correct fields are highlighted in case of errors.	Red	Not started
Page text should be left-justified.	Red	Not started
The user should be able to select only one radio option and any combination for checkboxes.	Red	Not started
Check if the default window size is correct.	Red	Not started

Check the window to minimize, maximize, and close functionality.	Red	Not started
--	-----	-------------

The email template should use standard CSS for all emails.	Red	Not started
The email subject should not be blank.	Red	Not started

Category	Progress Against Plan	Status
1. Verify that clicking on the browser back button after successful logout should not take the User to a logged-in mode	Amber	In progress
2. Verify that there is a limit on the total number of unsuccessful login attempts	Red	Not started
3. Verify the password can be copy-pasted. System shouldn't allow users to copy paste password.	Green	Completed
4. Verify that the "Remember password" checkbox is unselected by default	Amber	In progress
5. Verify the Login page against SQL injection attack.	Red	Not started
6. Verify the implementation of SSL certificate.	Red	Not started

Check if the downloadable files are pointing to the correct file path.	Amber	In progress
Verify if the credit card information is in a masked form.	Green	Completed
Check that the payment is happening through a secured channel.	Green	completed
Verify if the transaction gets canceled if the wrong OTP is entered.	Green	Completed
Verify the bank name reflecting on the payment page is the same as the user.	Green	Completed
Check if the payment gateway does not crash if multiple users are using it simultaneously.	Amber	In progress
Check if the processor is responding quickly.	Amber	In progress
Verify the time taken to reach the payment gateway from the application's page is the same as specified.	Amber	In progress
Verify if the page is secured from brute force or SQL injection attacks.	Amber	In progress

Check if the payment is happening even after the session expires.	Red	Not started
---	-----	-------------

Functional	Test Case Coverage (%)	Status
Verify Username	100%	Completed
Verify password	100%	Completed
Verify username and password combination	100%	Completed
User Interface	95%	In progress
Signup Option for new users	90%	In progress
Forgot Password	100%	Completed
Reset Password	100%	Completed
Required Fields	90%	In progress
Email validation	90%	In progress
Phone Number validation	50%	In progress
UI Test Cases for Payment Gateway	50%	In progress
Functional Test Cases for Payment Gateway	40%	In progress
Security Test Cases for Payment Gateway	40%	In progress
Course Registration	20%	Not started
GUI and Usability Test Scenarios	10%	Not started
Test Scenarios for	10%	Not started
Sending Emails	0%	Not started

Result:

Thus, the test case report has been created for the Studycipher.com