ACKNOWLEDGEMENT

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We would like to thank all the faculty members for their patience, understanding and guidance that gave us strength and will power to work through the long tedious hours for our project and preparing the report.

Last but not the least, we would also like to thank our family and colleagues, who have cooperated during the preparation of our report and without them this project would not have been possible. Their ideas helped us a lot to improve our project report.

Yash Patel (201703100810045)

Chintan Bambharoliya (201703100810052)

Parth Butani (201703100810059)

ABSTRACT

The purpose of this project is to automate the existing manual system by the help computerized equipments and full-fledged coputer software, fulfilling there requirements, so that their valuable data/information store for longer period with easy accesing and manipulation of same .The required software and hardware are easily available and easy to work with.

Here learner can learn new skills and also develop new skills in any field by enrolling the course and get certificate after completion of course. The learner can became the instructor by uploading the data to admin and if verified by the admin can became instructor and instructor can add new courses by categorize by topic such as web development ,Design,etc. Here learner has to buy monthly package rather than buying a particular course.

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Chapter 1 Introduction

1.1 Background

There can be no doubt that technology has transformed the way education is delivered to people across the globe. We now live in an interconnected world where the traditional concept of formal learning, taking place in a single physical location, is becoming increasingly less relevant. Today's learners are becoming dissatisfied with the stand-and-deliver approach to education that needs to obey attendance times, learning venues, and modes of participation. The emergence of communication technologies and mobile devices has enabled a new generation of information consumers to satisfy their demands for knowledge without the need to meet in a physical location. Software vendors, open-source developers, and educational institutions, knowledge of this development, have embraced systems that can facilitate the management of courses and engagement with students remotely.

1.2 Problem Definition

The technologies that facilitate the provision of courses over long distances are broadly termed "learning management systems" or "LMSs." Learning management systems can be defined as web-based software platforms that provide an interactive online learning environment and automate the administration, organization, delivery, and reporting of educational content and learner outcomes.

1.3 Motivation

Due to this pandemic situation the learning system is became online based due to which many organization has started mode if online education. But the some organization can't provide such system, so we have made this project for those learner who can't get education from such institute.

Here learnes needs to buy subscription pack rather than a particular course. So that learner can enroll as many number of courses he/she wanted to learn new skills.

1.4 Objective

Here by compeleting this project learners will achieve the best experience and will learn new technologics. Here as courses will be from verified instructor so that learner can easily

understand the content of topic. In this instructor will be also get paid as per the student enroll and will be appreciate for their courses provided.

1.5 Scope

Our main aim is at education process automation i.e we have tried to computerize various processes of online learning.

- It satisfy the user requirement
- Easy to understand by user and instructor
- Afforadable
- Have good user interface
- Get certificate after compeletion of course

1.6 Applications

- Anywhere, anytime learning

Chapter 2 System Planning

2.1 Project Development Approach

- Here we have use incremental model
- Why we have use this model:
  - When the requirements are superior.
  - A project has a lengthy development schedule.
  - When Software team are not very well skilled or trained.
  - When the customer demands a quick release of the product.
  - You can develop prioritized requirements first
- Advantages of your software model:
  - Errors are easy to be detected.
  - Easier to test and debug
  - More flexible.
  - Simple to manage risk because it handled during its iteration.

2.2 System Modules

2.2.1 Admin Module

- Admin can see the whole details of the course,learners and instructors.
- Admin can activate the instructor and can also deactivate the instructor.
- Admin can add domain and modify the domain.
- Admin can activate/deactivate the course.
- Admin can see the learners details like course progress and course completed by a particular learner.
- Admin can message to instructor about their course uploaded.
- Admin can delete course, instructor , domain and other admin.

2.2.2 Instructor Module

- Instructor can see the details of the course which he has uploaded.
- Instructor can create new course.
- Instructor can see the number of learner enroll in a particular course.
- Instructor can see the number of learner who has completed a particular course which uploaded by him.
- Instructor can reply to message from admin about their course uploaded.
- Instructor can modify/delete the course uploaded by him.

- Instructor view the pending course uploaded by him.

2.2.3 Learner Module

- Learner can see the course which he want to develop the skill in it.
- Learner can search the courses as per his topic.
- Learner can view his progress of his course enroll course.
- Learner can get certificate after compeletion of course.
- Learner can view course by domain wise.
- Learner can give feedback to course and instructor.
- Learner can contact to admin through contact us page.
- Anybody can verify certificate by reference id.

2.3 Functional Requirements

2.3.1 Login/Register

- This module will allow admin/instructor and learners to login or create his/her profile.

2.3.2 Forget Password/username

- Anyone can recover password by using his email address.
- Anyone can recover username by using his email address, first name and last name.

2.3.3 Create Domian

- Only Administrators will be allowed to create domain.

2.3.4 Modify Domain

- This option will allow administrators to modify domain.

2.3.5 Authentication.

- After a instructors/learners submits his credentials at the login page the credentials will be collected and validated against security repository, which is store on database.

2.3.6 Details Updation

- Admin,Instructor and Learner can modify is personal details .

2.3.7 Create/Modify Course

- Instructor can create course and can modify uploaded by him.

2.3.8 Instructor Approval

- Admin can activate/deactivate the Instructor.

2.3.9 Course Approval

- Admin can activate/deactivate the course.

2.3.10 Meassage

- Admin and instructor can inte ract with each other about course uploaded by instructor.

2.3.11 Search Course

- Learner can search course by topic.

2.3.12 Course Enrolment

- This module will allow a learner to enrollment in course choose by him/her.
- Learner can save the course for later .

2.3.13 Rating

- Learner can give rating to both course and instructor with comments.

2.3.14 Course Certificate

- Certificate will be provided to learner after compeletion of course.

2.3.15 Certificate verification

- Anyone can verify the certificate provided by us by it's reference id.

2.3.16 Logout

- This module will destroy the login session of logged in.

2.4 Non Functional Requirements

2.4.1 Portability

- As this system can work on multiple platforms, portability is an essential attribute.

2.4.2 Performance

- Responses to queries shall take no longer to load onto the screen after the user submits the query.

2.4.3 Maintainability

- The module shall be designed with the view that bugs may need fixing, for future optimisations and for adding extra functionalities for developers.

2.4.4 Safety requirements

- Checking the fact that all clients must be attached to one server, so there can be appropriate control of the information.

2.4.5 Security

- The data generated by the user are only accessible by the admin and system should store these data in MySQL database and must no share them.

2.5 Hardware and Software Requirements

2.5.1 Hardware Requirements

- **Server Side:**Basic configuration for running web application such as Apache/MySQL server is necessary for deploying and testing of this system.
- **Client Side:**Computer with Speaker or Headphone facility / Laptop or smartphone.

2.5.2 Software Requirements

- **Server:** Web Server: Apache/XAMPP
  Programming language: php 7
  Database: MySQL
  Operational System: Unix/Linux /Windows/macOS
- **Client:** Operational System: Unix/Linux /Windows/macOS
  Software: Any kind of web browser with JavaScript and HTML5.0 supported.

2.6 Timeline Chart

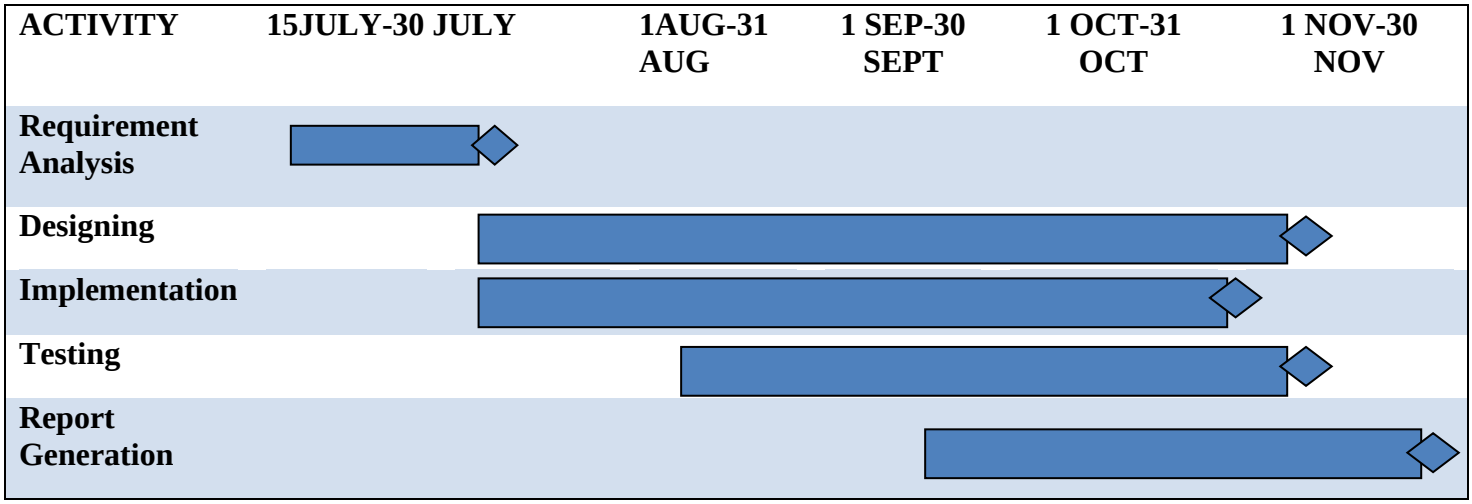


Figure 2.6.1: Timeline Chart

Chapter 3 System Design

3.1 Database Schema.

Table 3.1.1: Role Table

Column Name	Data Type	Size	Constraint	Description
Id	INT	11	Primary_key	ID No.
Role	TEXT	---	---	Role(admin,instructor,learner)

Table 3.1.2: User Table

Column Name	Data Type	Size	Constraint	Description
Id	INT	11	Primary_key	ID No.
Firstname	VARCHAR	25	---	First Name
Lastname	VARCHAR	25	---	Last Name
Username	VARCHAR	25	---	User Name
Role	INT	11	---	---
Email	VARCHAR	50	---	Email Address
Password	VARCHAR	255	---	---
SignUpDate	DATETIME	---	Current_timestamp	---
isSubscribed	TINYINT	1	---	---
Auth	VARCHAR	5000	---	---

Table 3.1.3: Instructor Table

Column Name	Data Type	Size	Constraint	Description
Id	INT	11	Primary_key	ID No.
User_ID	INT	11	Foreign_key	---
Degree	VARCHAR	200	---	---
Experience	TEXT	---	---	---
University	TEXT	---	---	---
About	TEXT	---	---	---
Img	VARCHAR	1000	---	---
Resume	TEXT	---	---	---
Status	TINYINT	1	---	Active/deactive

Table 3.1.4: Categories Table

Column Name	Data Type	Size	Constraint	Description
Id	INT	11	Primary_key	ID No.
Name	VARCHAR	50	---	---
Img	VARCHAR	1000	---	Category Image

Table 3.1.5: Entites Table

Column Name	Data Type	Size	Constraint	Description
Id	INT	11	Primary_key	ID No.
Name	VARCHAR	250	---	---
Thumbnail	VARCHAR	250	---	Image Path
Category_Id	INT	11	Foreign_key	---
Short_des	TEXT	---	---	Short Description
Long_des	TEXT	---	---	Long Description
Teacher_Id	INT	11	Foreign_key	---
Duration	VACHAR	50	---	Format(00:00:00)
Student_en	VARCHAR	3000	---	No. of Student Enroll
Language	TEXT	---	---	---
Overview	TEXT	---	---	Learn after competleing course
Requirement	TEXT	---	---	Before enroll in course
Status	TINYINT	1	---	Active/Deactive

Table 3.1.6: Videos Table

Column Name	Data Type	Size	Constraint	Description
Id	INT	11	Primary_key	ID No.
Previewvideo	TEXT	---	---	Video File Path
Mainvideo	TEXT	---	---	Video File Path
EntityId	INT	11	Foreign_key	---
Views	INT	11	---	---
uploadDate	DATETIME	---	Current_timestamp	---

Table 3.1.7: Video Progress Table

Column Name	Data Type	Size	Constraint	Description
Id	INT	11	Primary_key	ID No.
Learner_Id	INT	11	Foreign_key	---
Video_Id	INT	11	Foreign_key	---
progress	INT	11	---	---
Current	DECIMAL	65,0	---	---
Finished	TINYINT	1	---	---
Datemodified	DATETIME	---	Current_timestamp	---

Table 3.1.8: Save_later Table

Column Name	Data Type	Size	Constraint	Description
Id	INT	11	Primary_key	ID No.
Leaner_id	INT	11	Foreign_key	---
Course_id	INT	11	Foreign_key	---

Table 3.1.9: Feedback Table

Column Name	Data Type	Size	Constraint	Description
Id	INT	11	Primary_key	ID No.
Learner_id	INT	11	Foreign_key	---
Course_id	INT	11	Foreign_key	---
Ins_rate	INT	11	---	---
Course_rate	INT	11	---	---
Teacher_id	INT	11	Foreign_key	---
Comment	VARCHAR	100	---	---

Table 3.1.10: Message Table

Column Name	Data Type	Size	Constraint	Description
Id	INT	11	Primary_key	ID No.
Title	TEXT	---	---	---
Sender	INT	11	Foreign_key	---
Receiver	INT	11	Foreign_key	---

isAdmin	TINYINT	1	---	---
Description	TEXT	---	---	---
Status	INT	10	---	0/1
Date	DATETIME	---	Cureent_timestamp	---

Table 3.1.11: Certificate Table

Column Name	Data Type	Size	Constraint	Description
Id	INT	11	Primary_key	ID No.
Learner_Id	INT	11	---	---
Course_Id	INT	11	---	---
Certificate	VARCHAR	1000	---	---
Reference_Id	VARCHAR	500	---	---
Issue_date	Date	---	Current_timestamp	---

3.2 ER Diagram

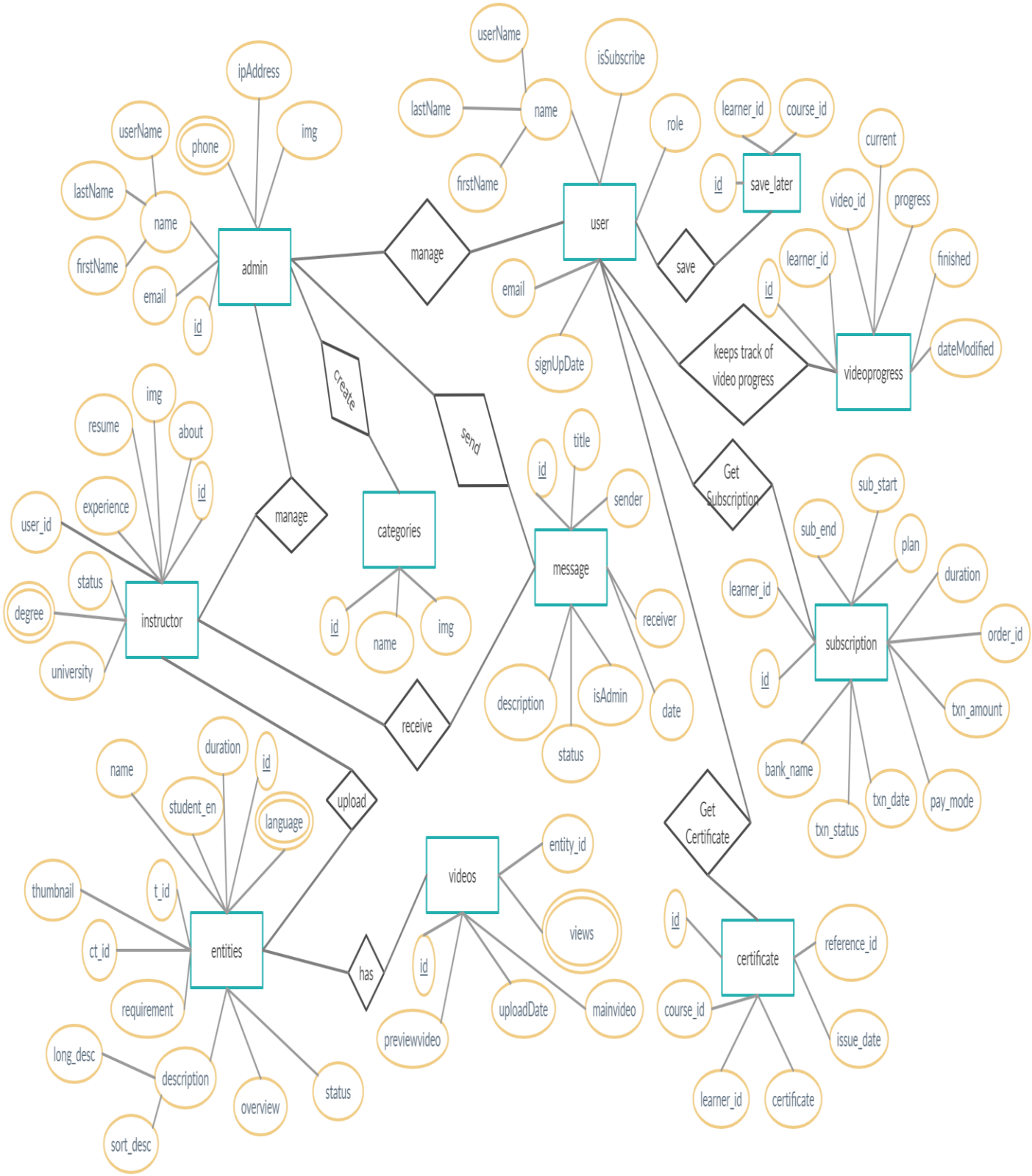


Figure 3.2.1: ER Diagram

3.3 Use Case Diagram

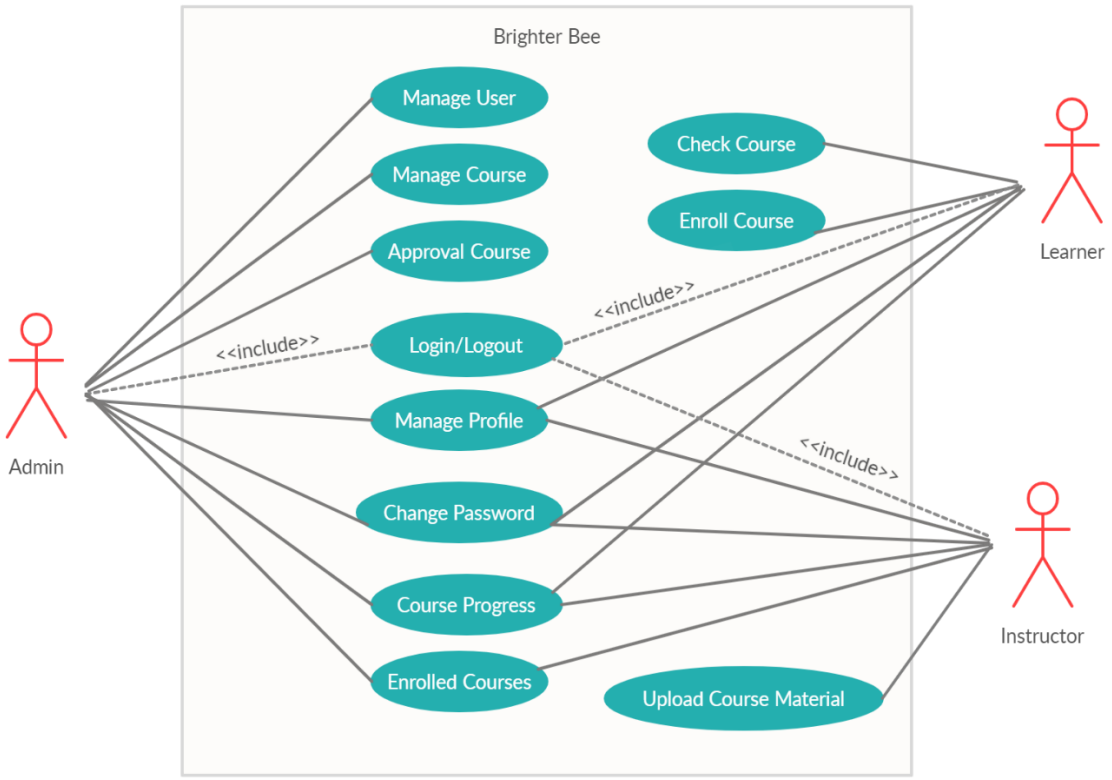


Figure 3.3.1: Use Case Diagram

3.4 Sequence Diagram

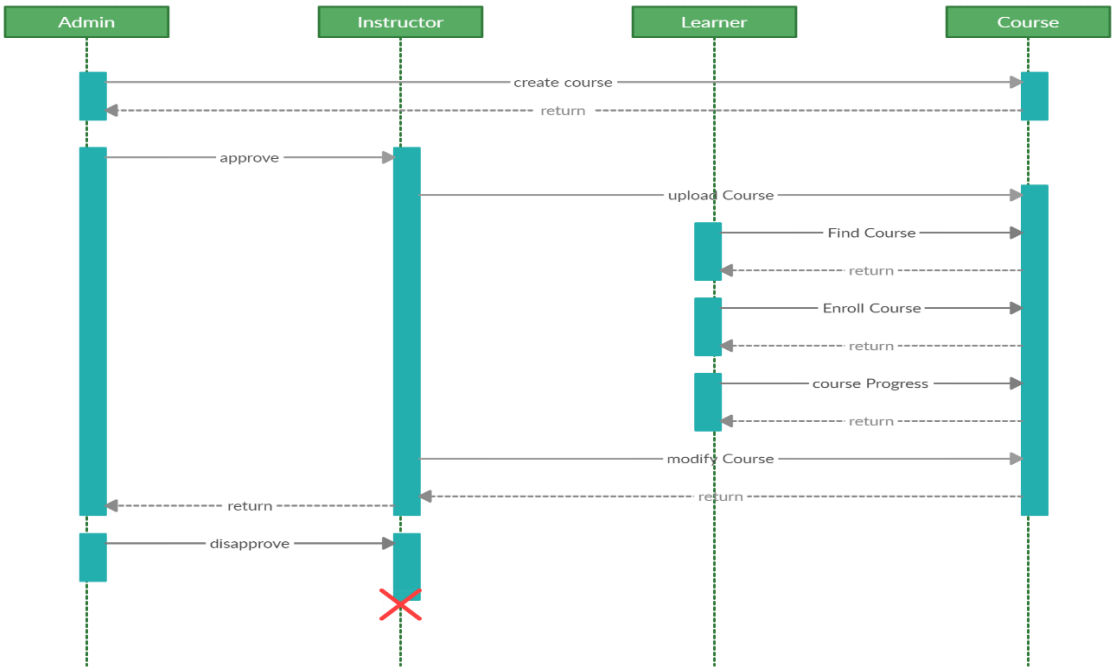


Figure 3.4.1: Sequence Diagram

3.5 Activity Diagram

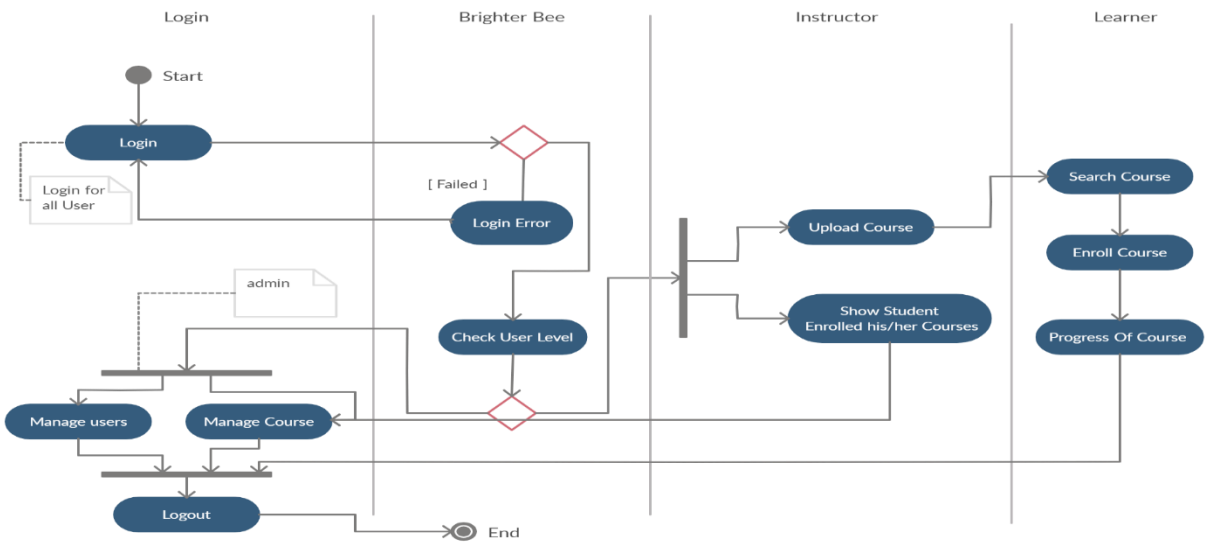


Figure 3.5.1: Activity Diagram

3.6 Class Diagram

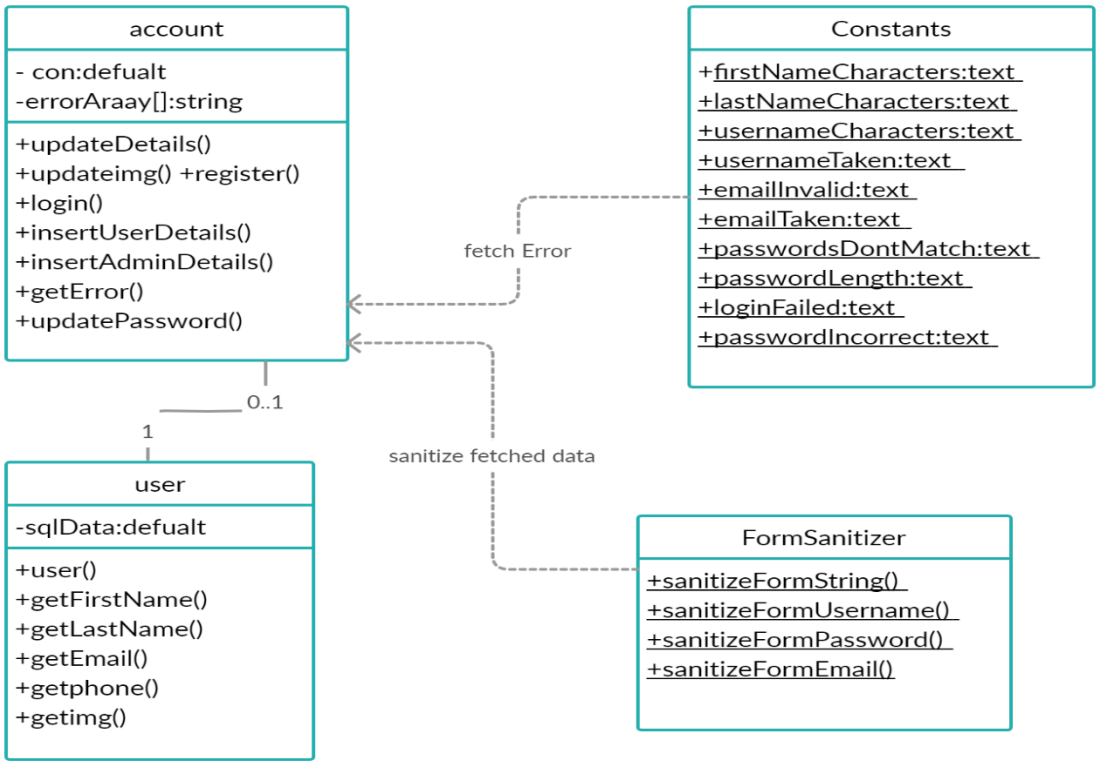


Figure 3.6.1: Class Diagram

3.7 Data Flow Diagram

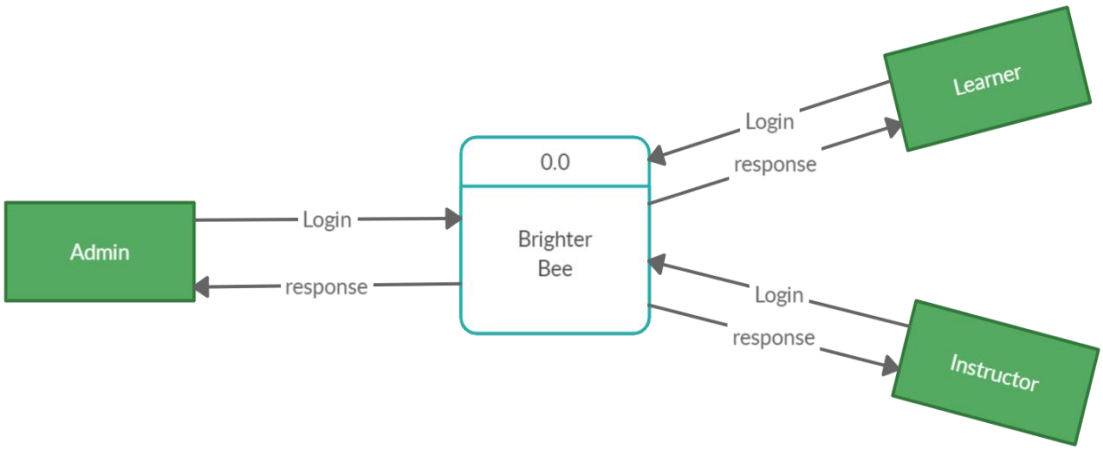


Figure 3.7.1: Data Flow Diagram(Level 0)

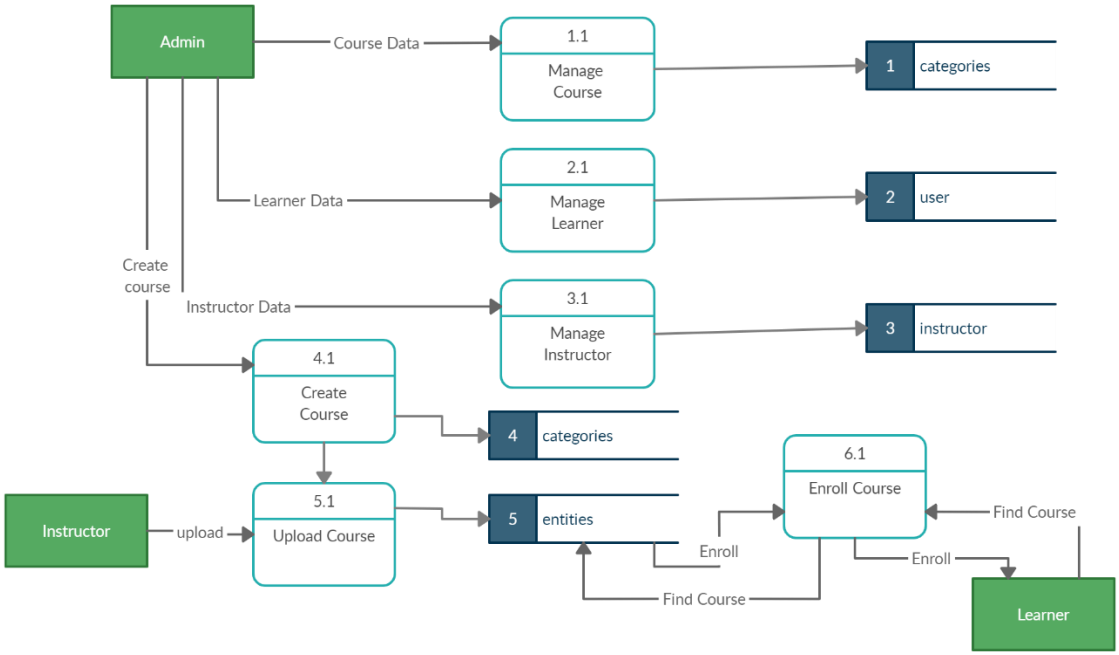
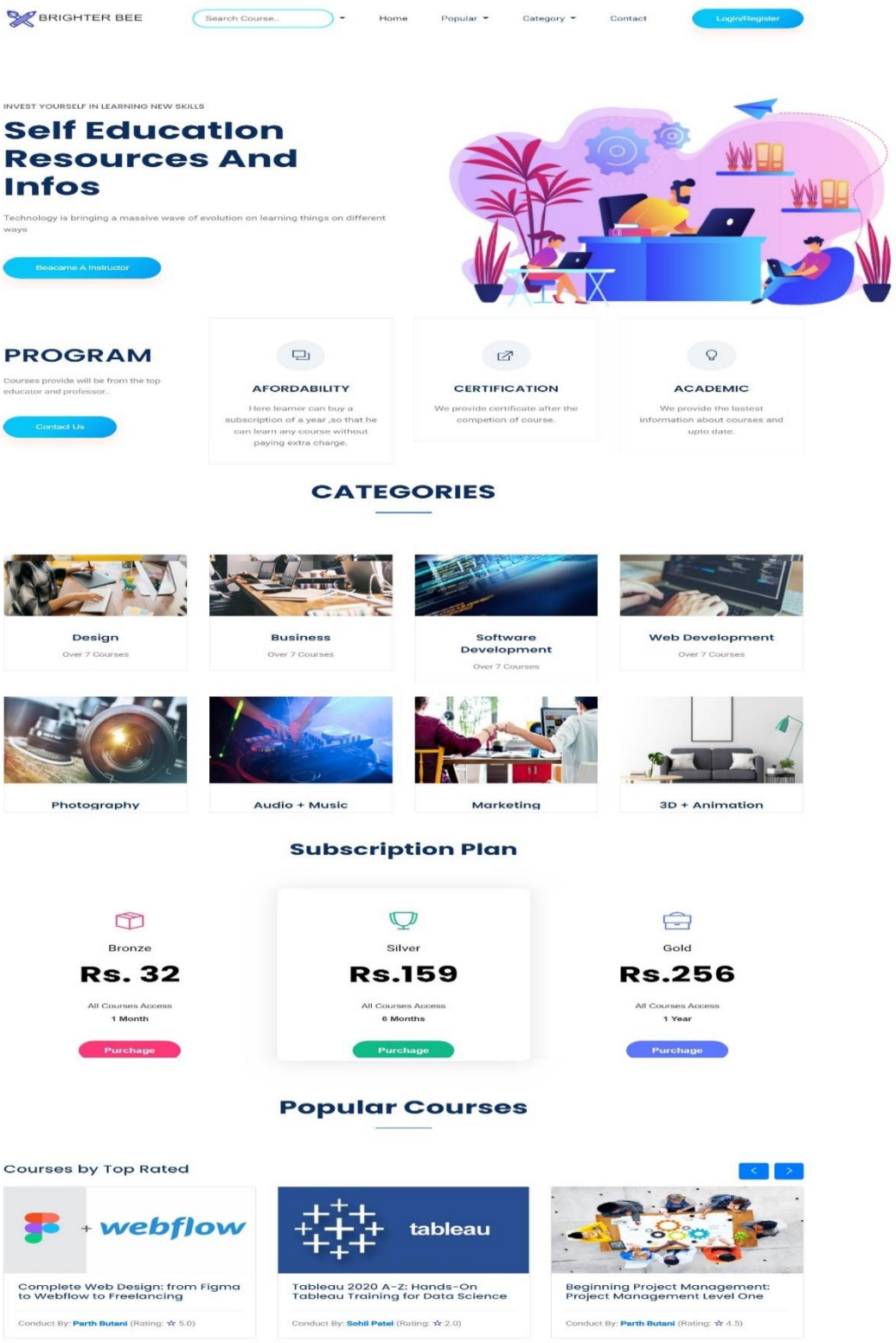


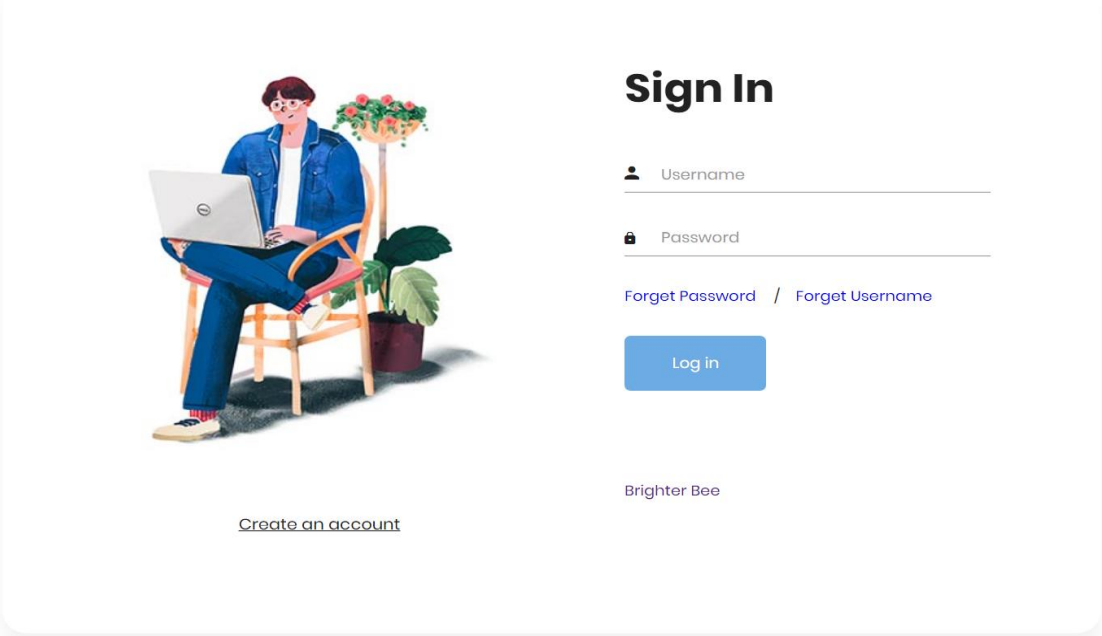
Figure 3.7.2: Data Flow Diagram(Level 1)

Chapter 4 Implementation and Testing

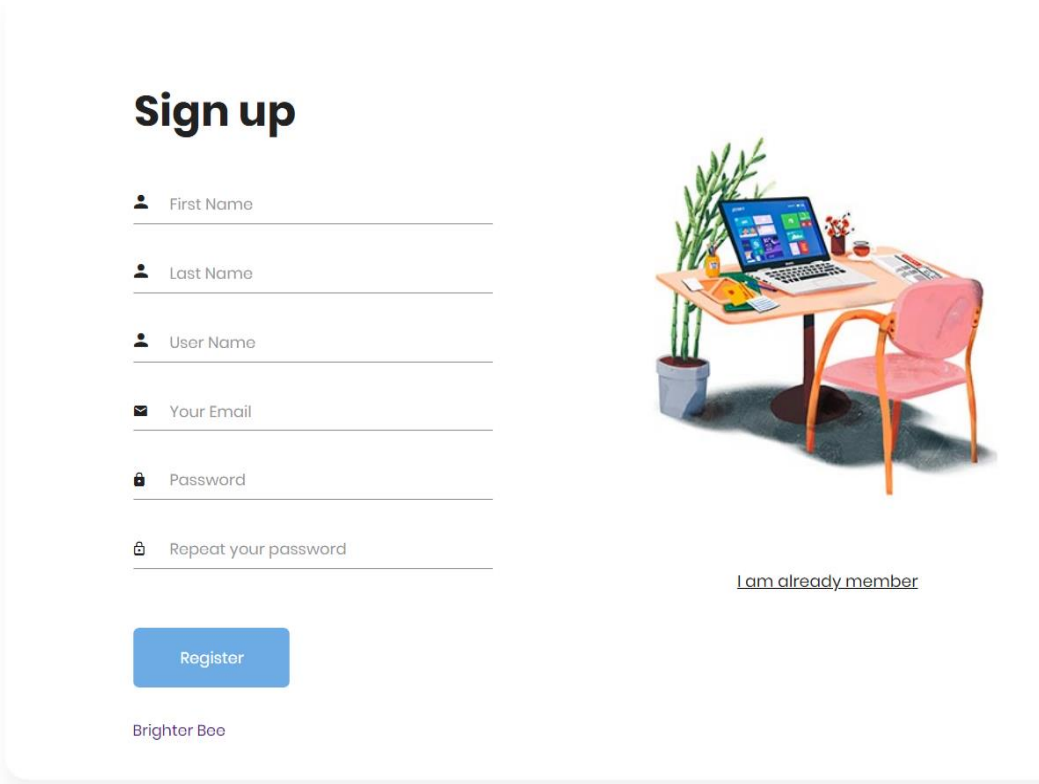
4.1 Snapshots



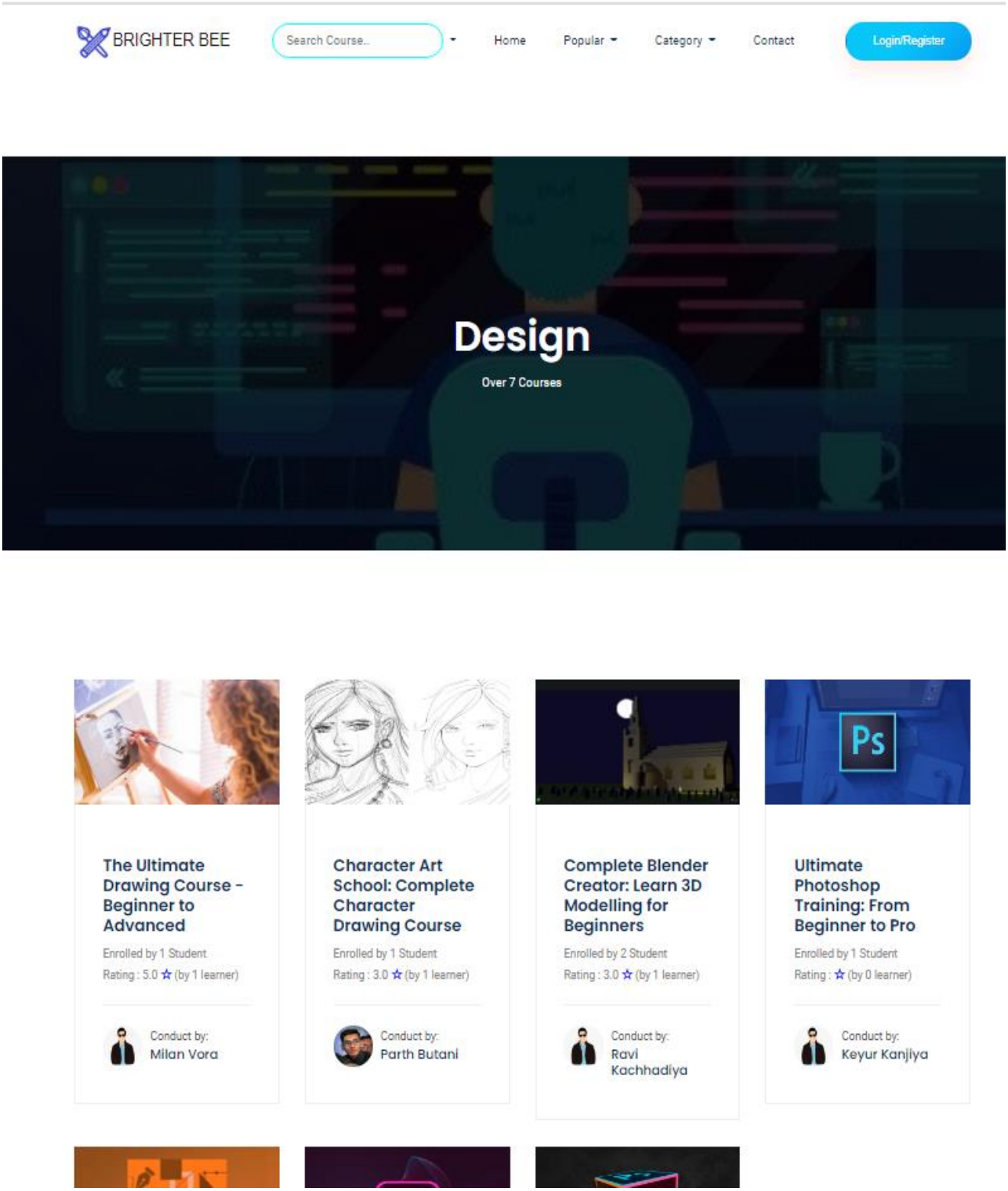
4.1.1 Landing Page



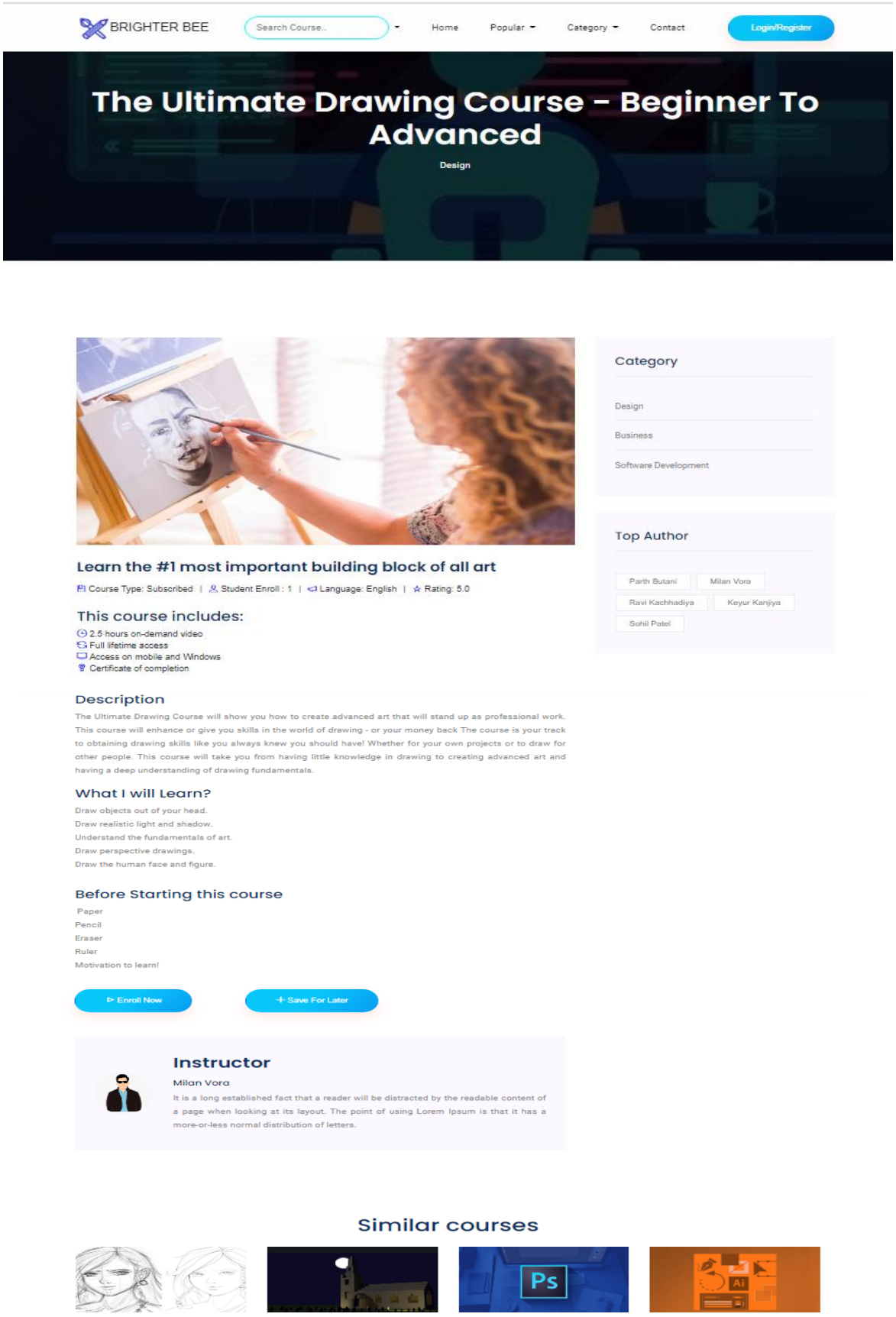
4.1.2 Sign In



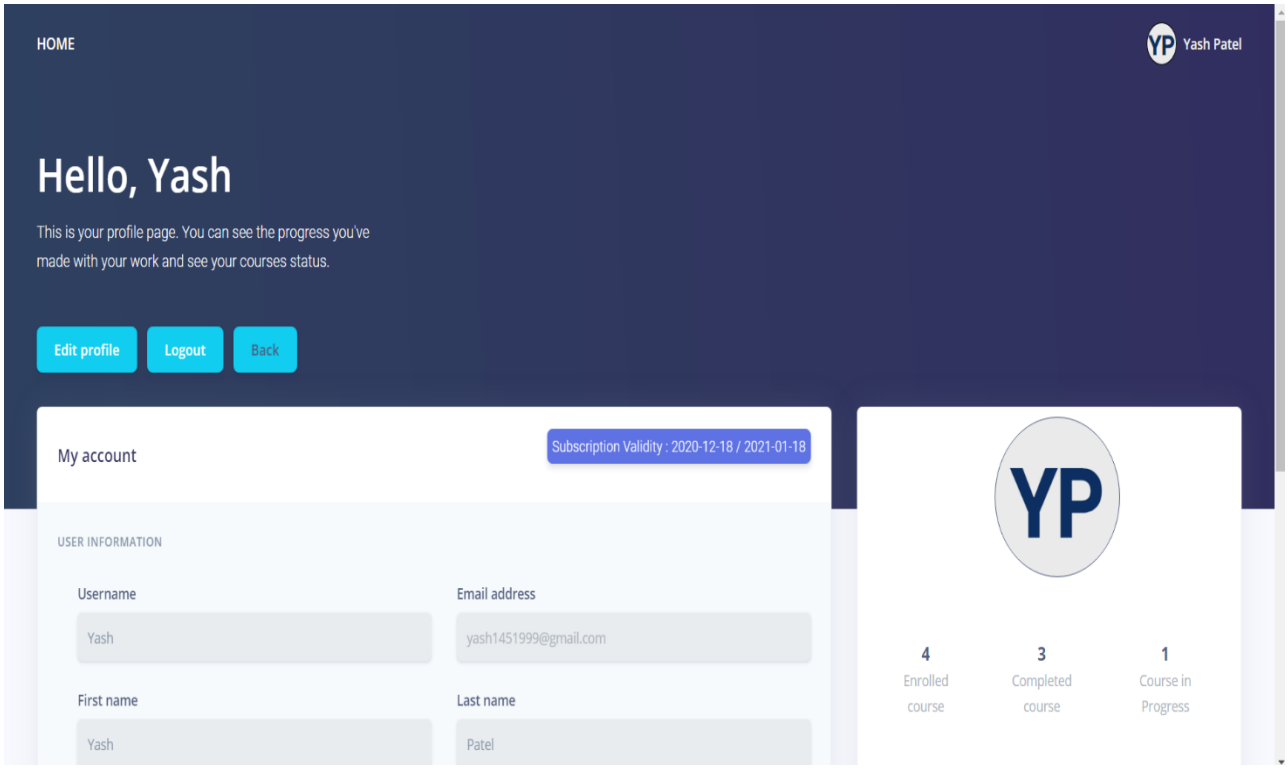
4.1.3 Create Account



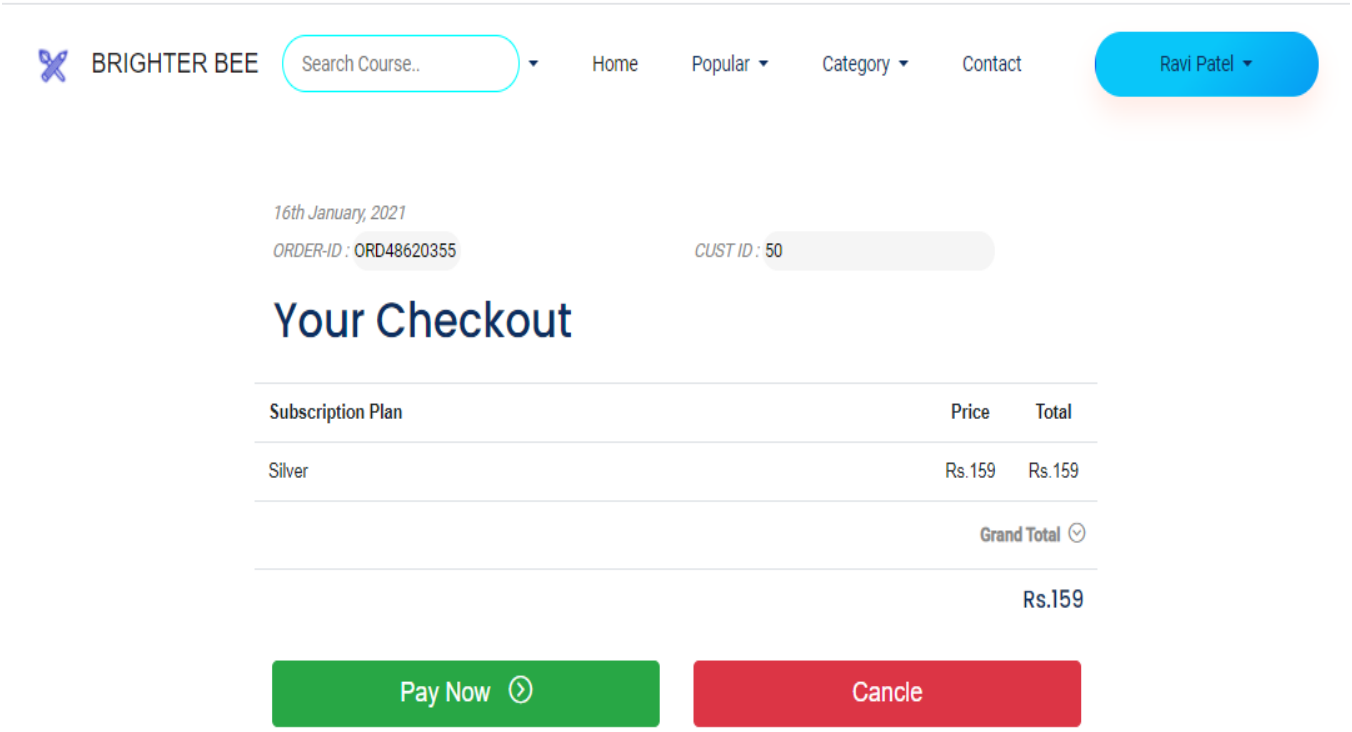
4.1.4 Single category



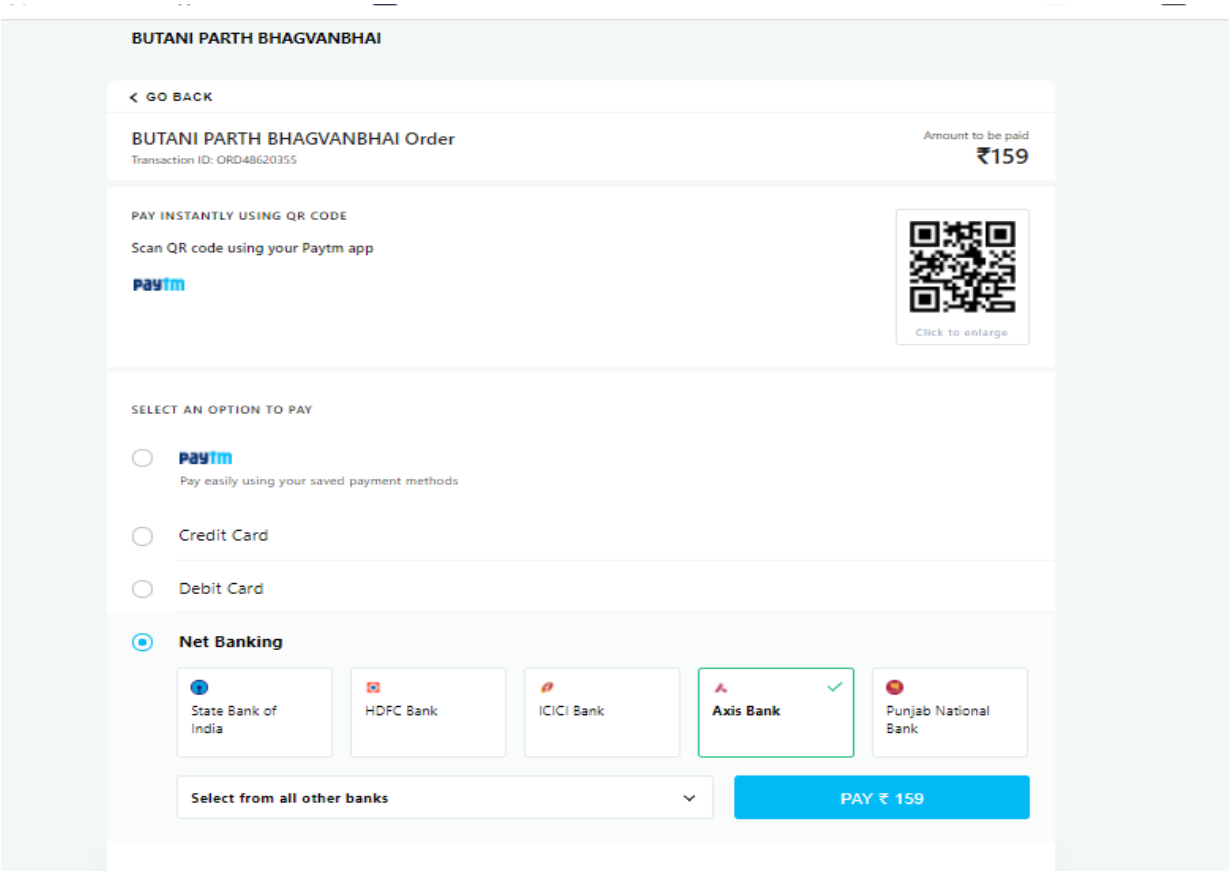
4.1.5 Single course



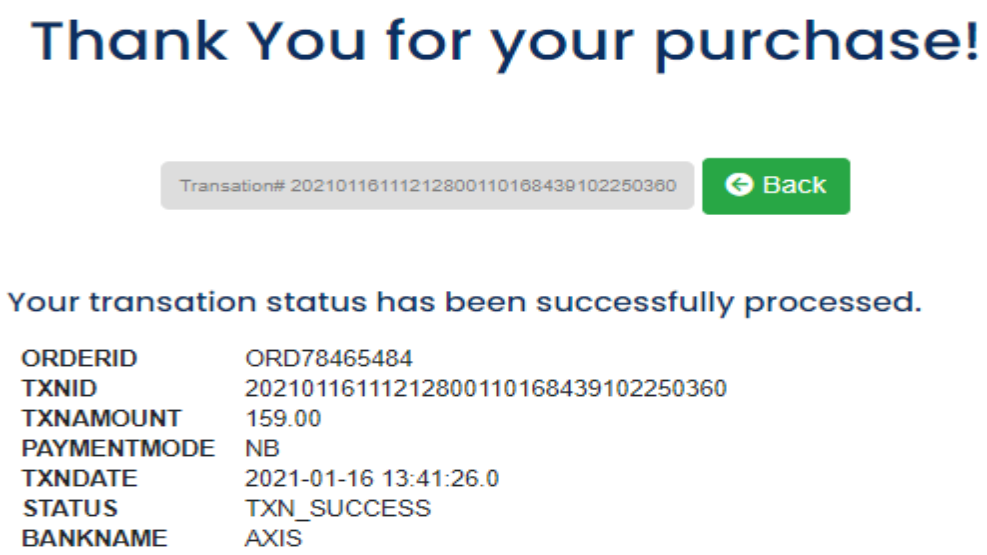
4.1.6 Profile page (learner)



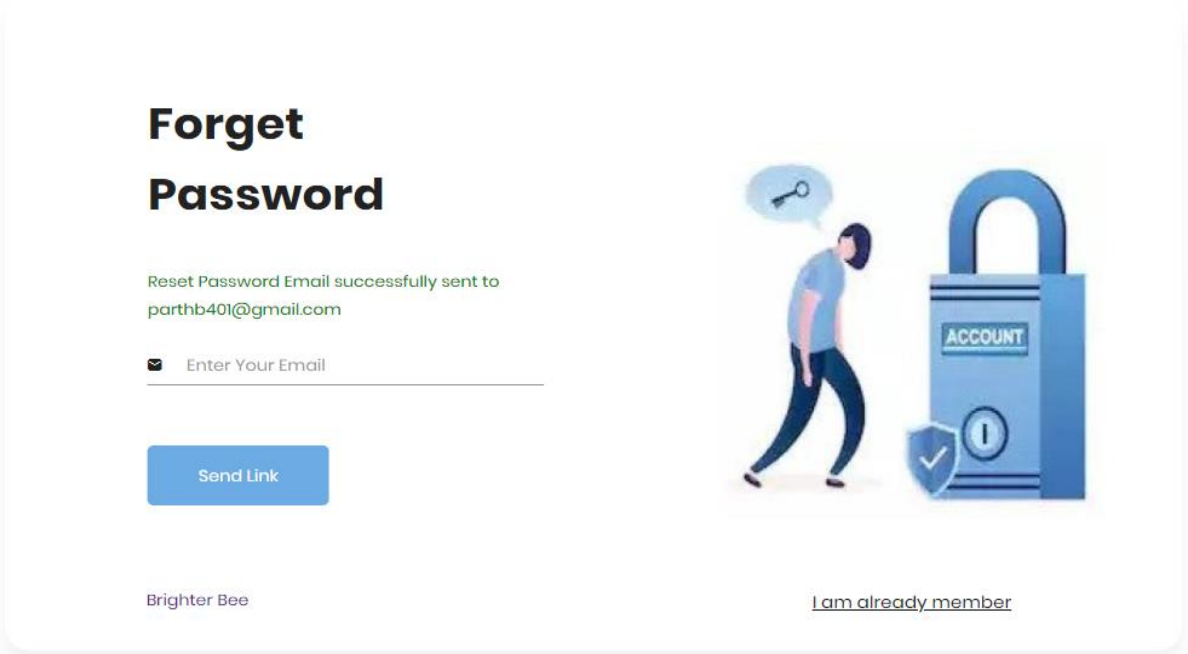
4.1.7 Checkout



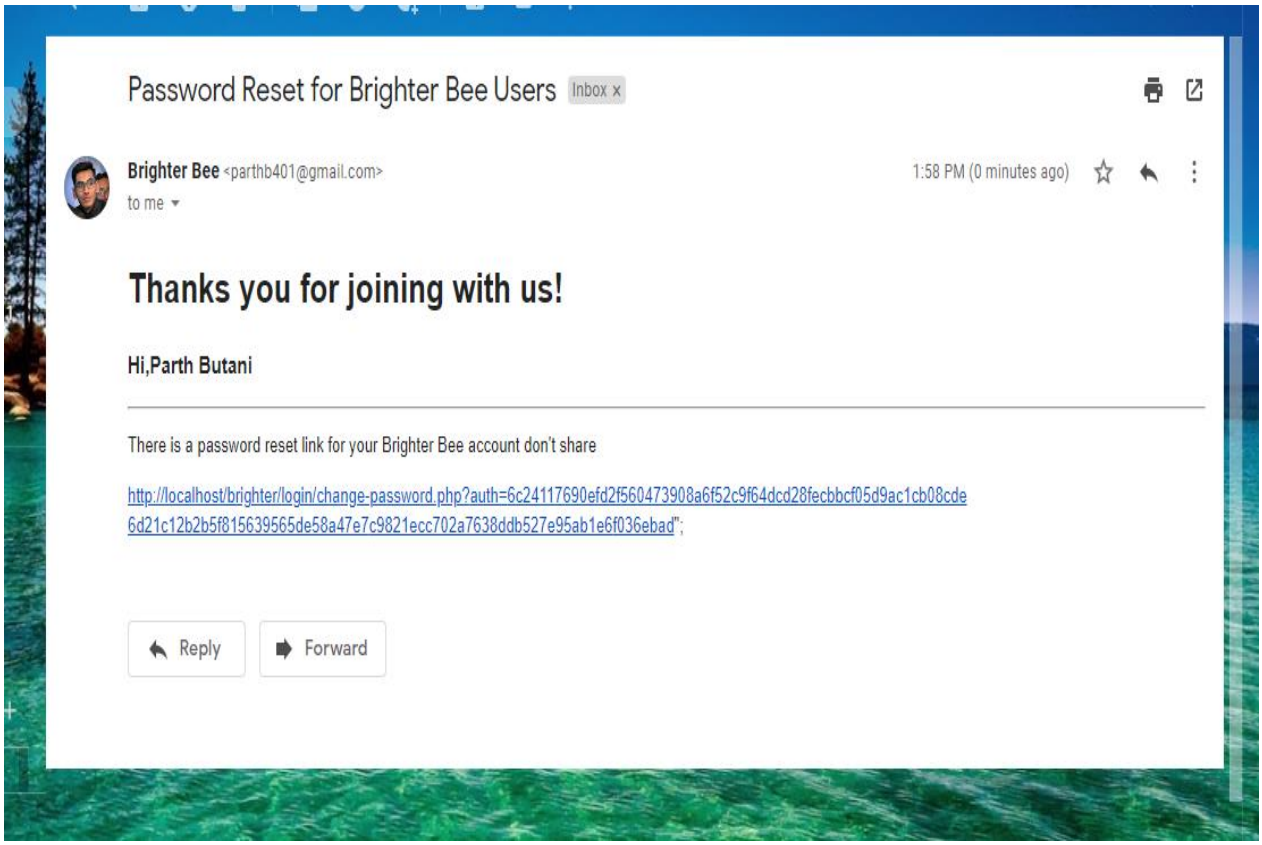
4.1.8 Payment ways



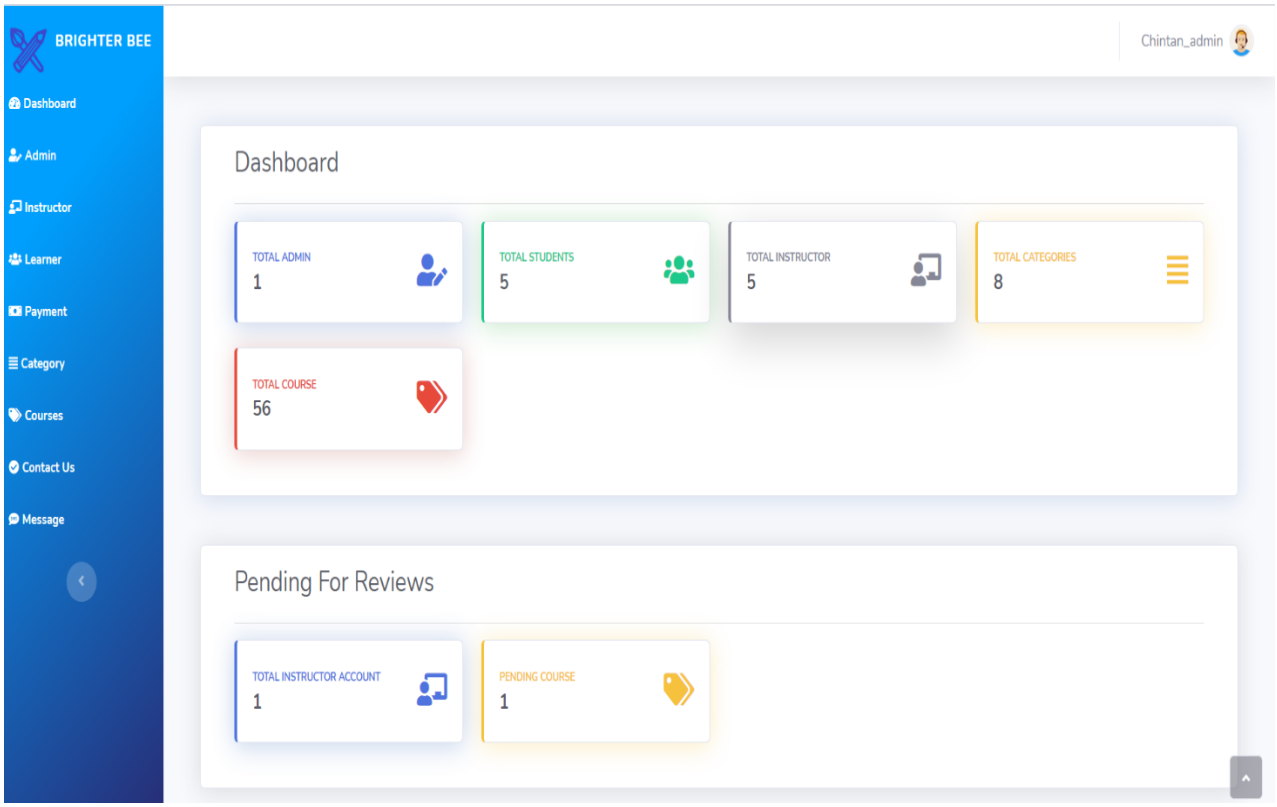
4.1.9 Transaction detail



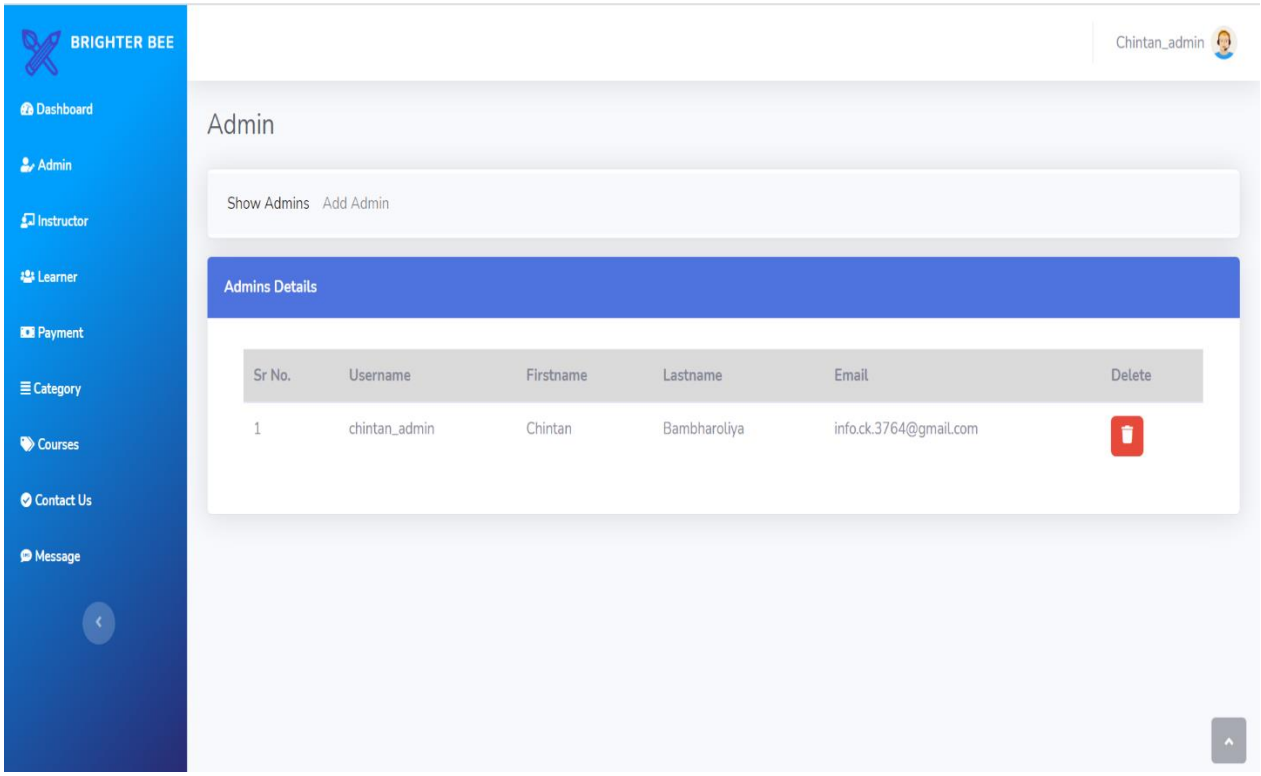
4.1.10 Forget password



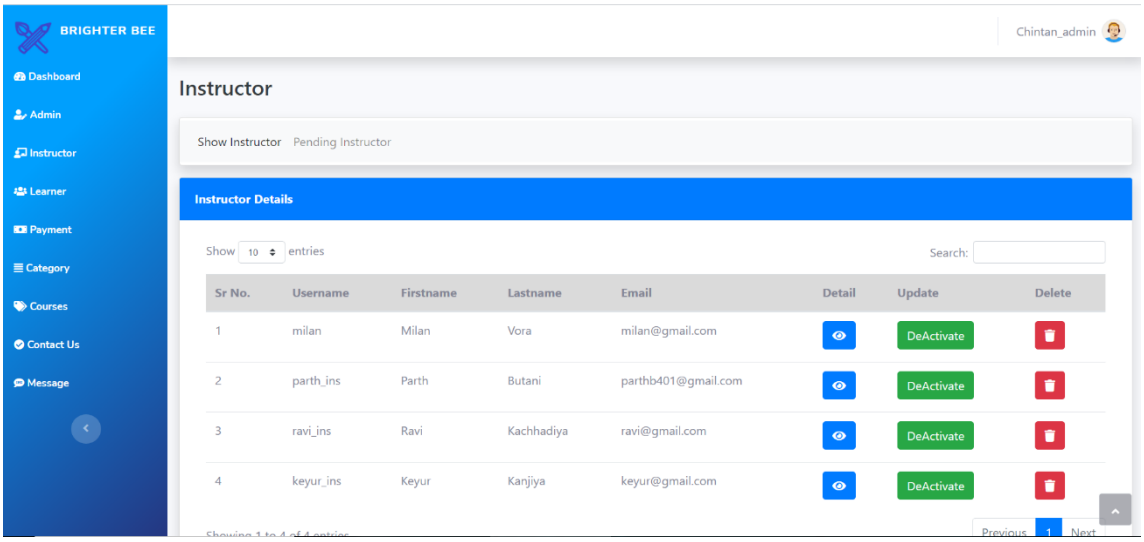
4.1.11 Link of reset password in mail



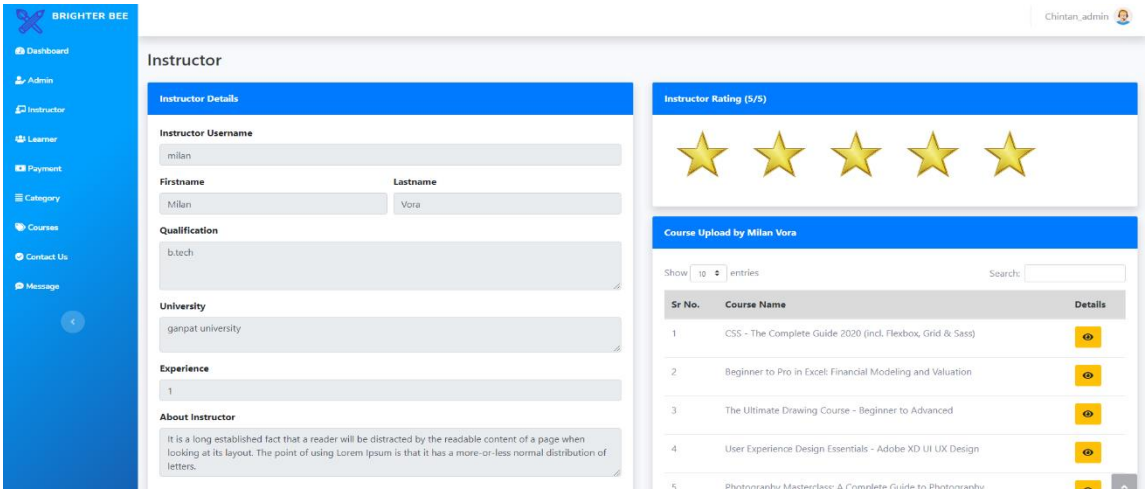
4.1.12 Admin dashboard



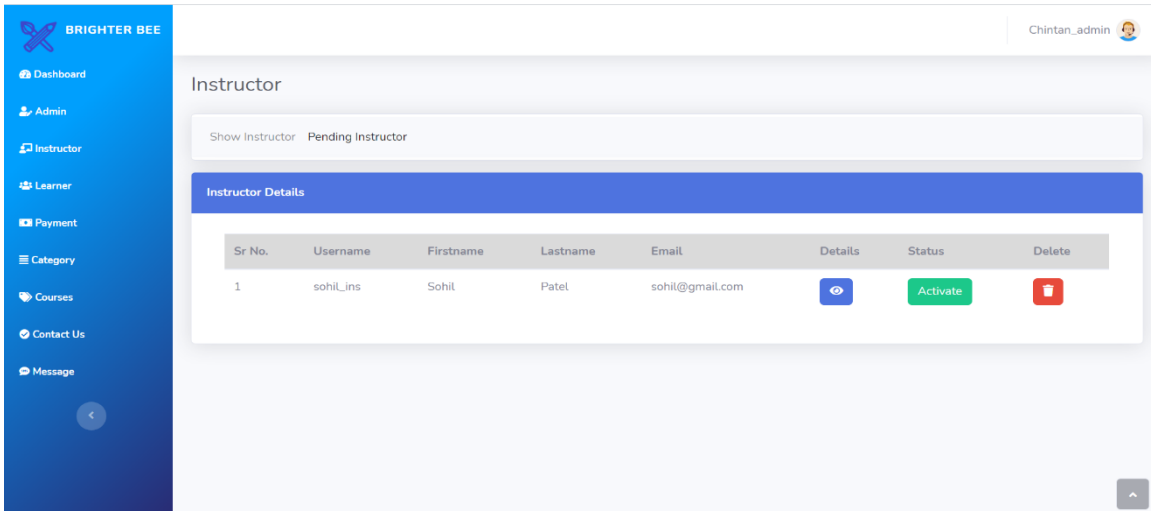
4.1.13 Admins details



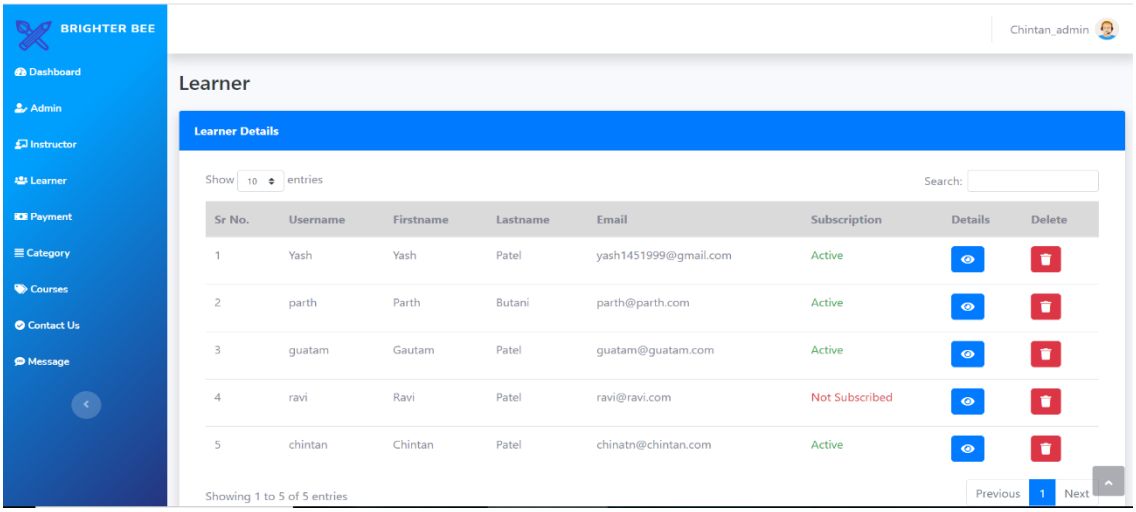
4.1.14 No. of instructor



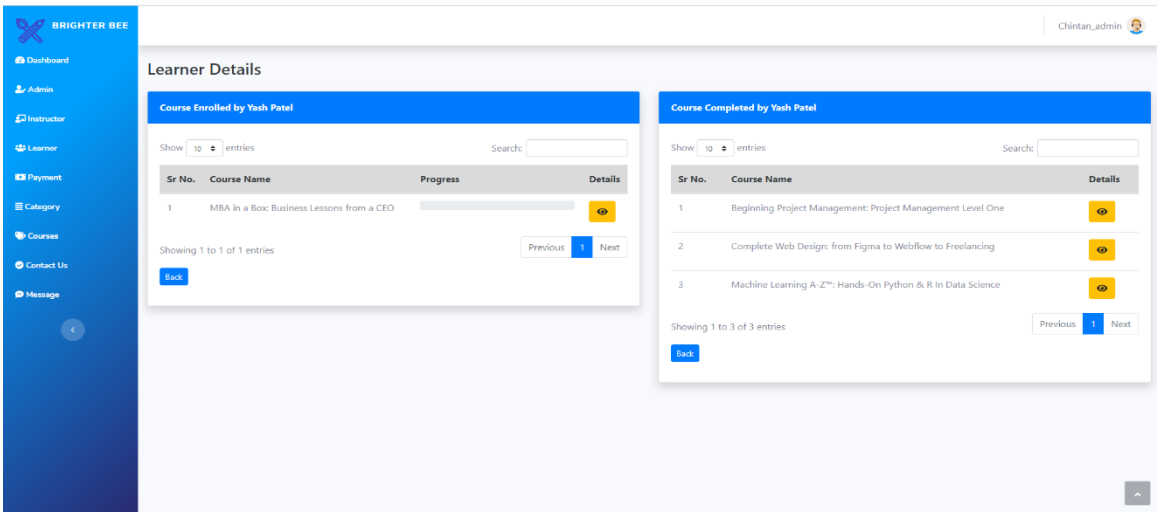
4.1.15 Instructor details



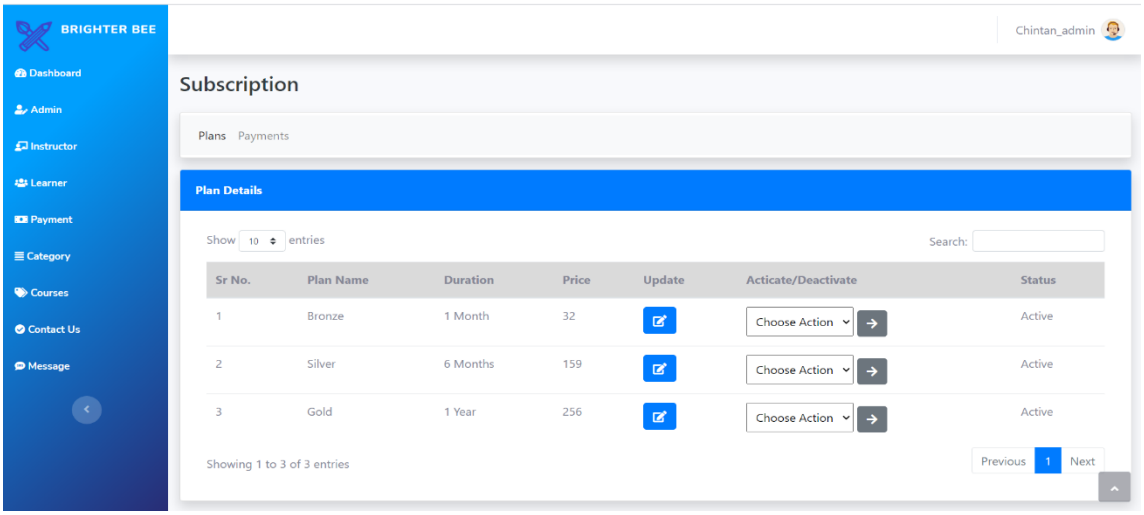
4.1.16 Pending instructor



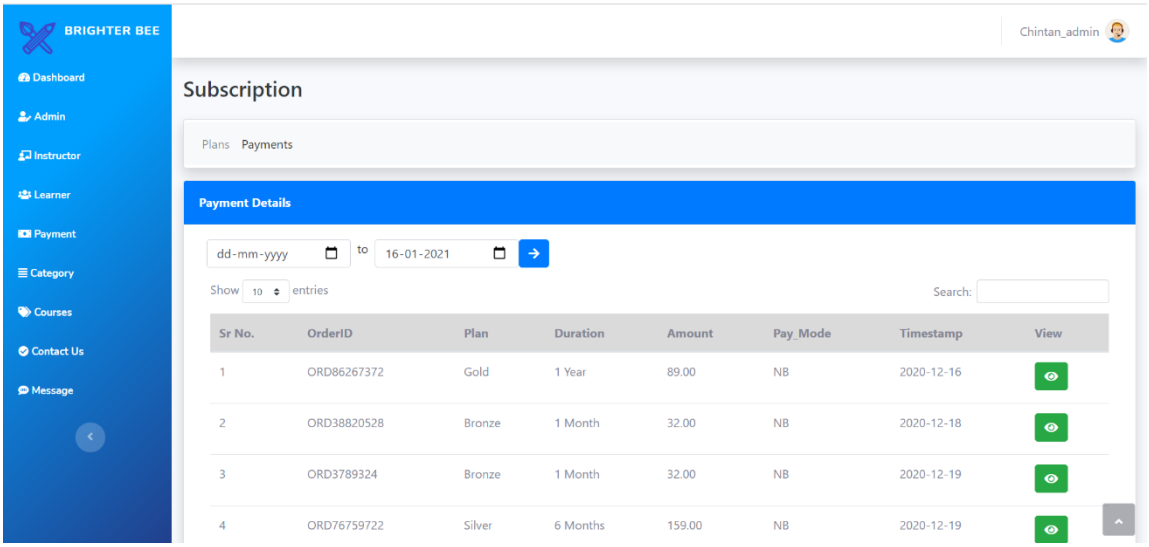
4.1.17 No. of learners



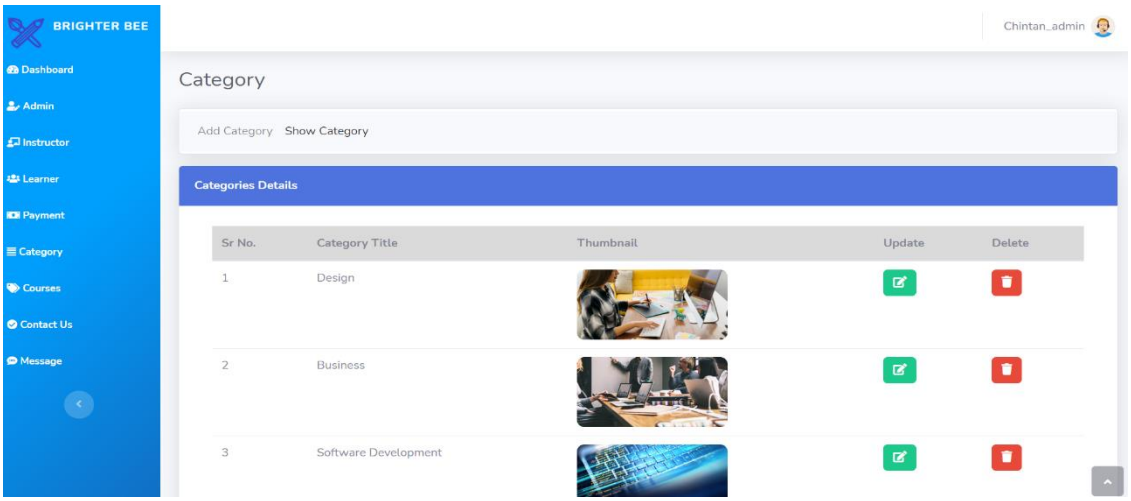
4.1.18 Learners details



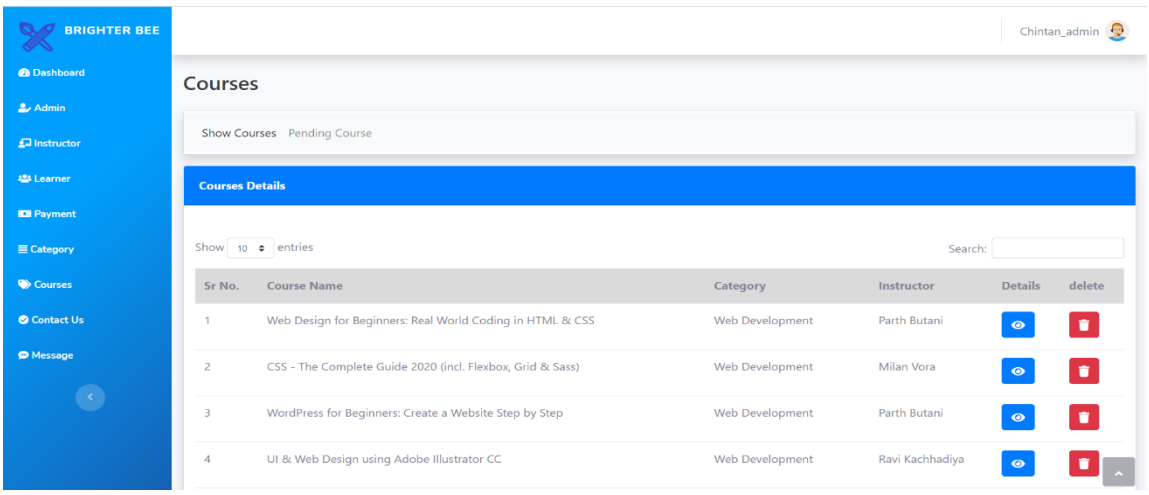
4.1.19 subscription plans details



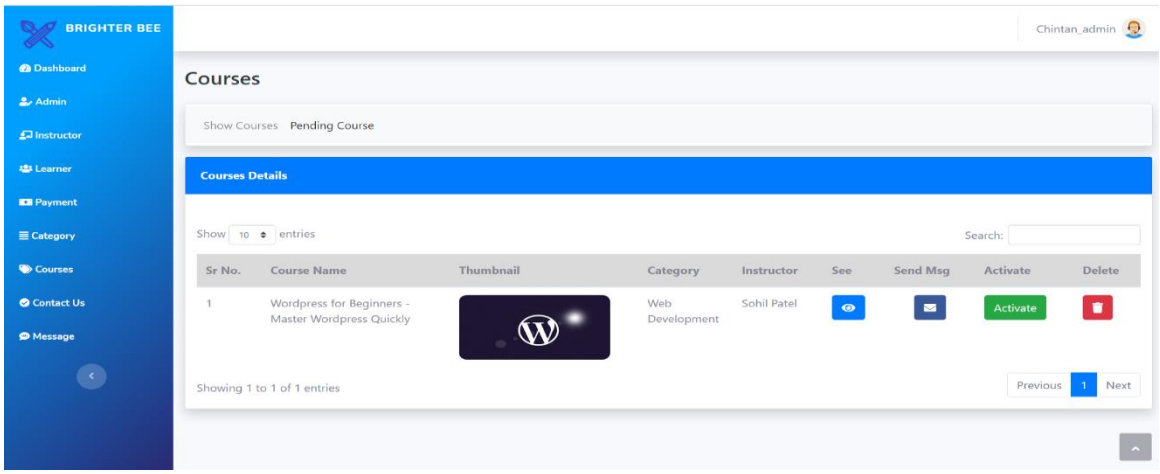
4.1.20 payments (done by learners)



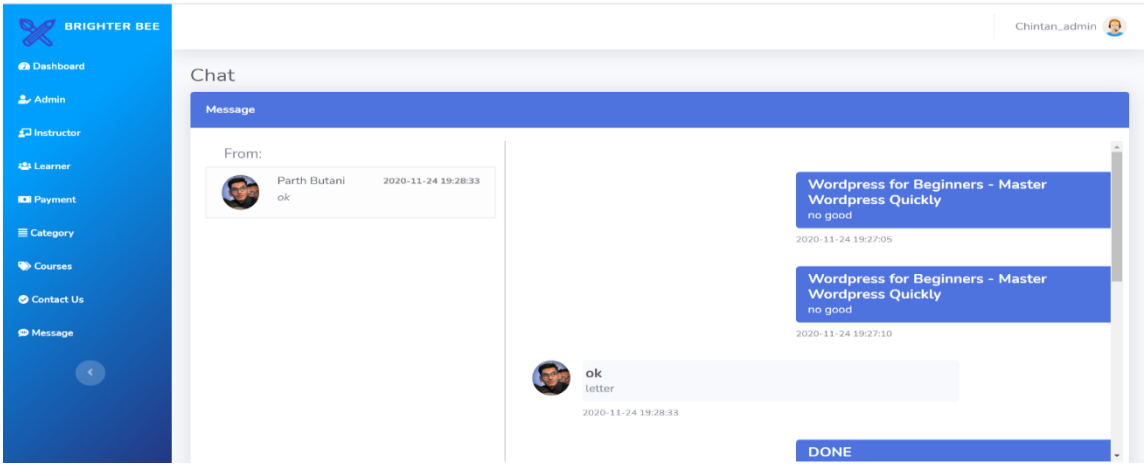
4.1.21 No. of categories



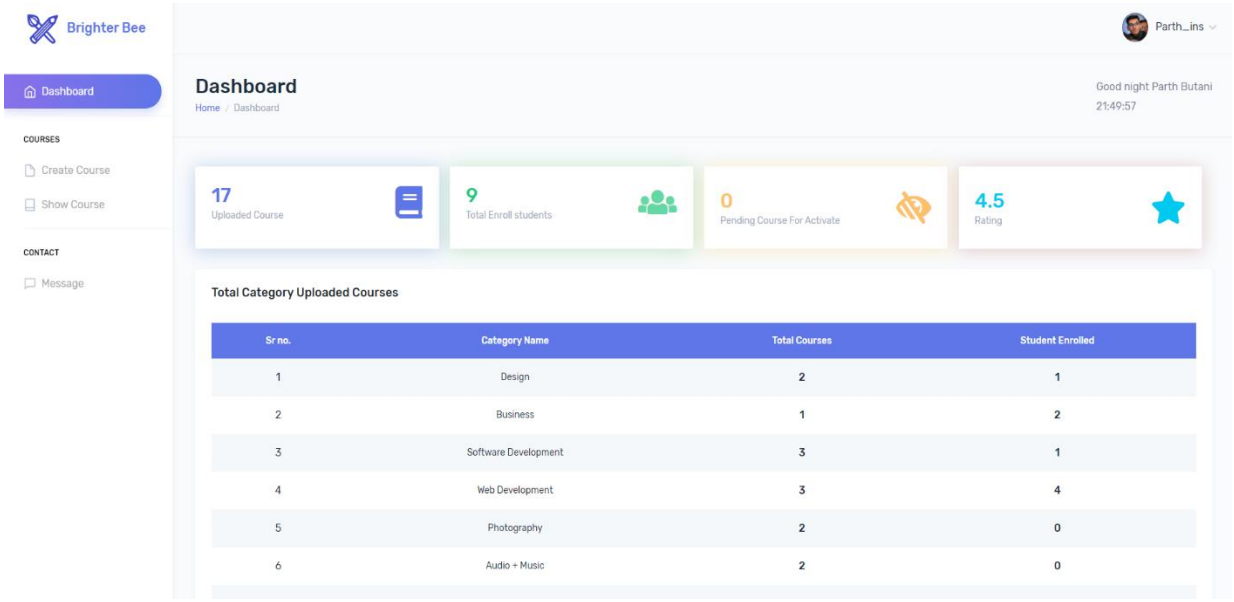
4.1.22 Courses details



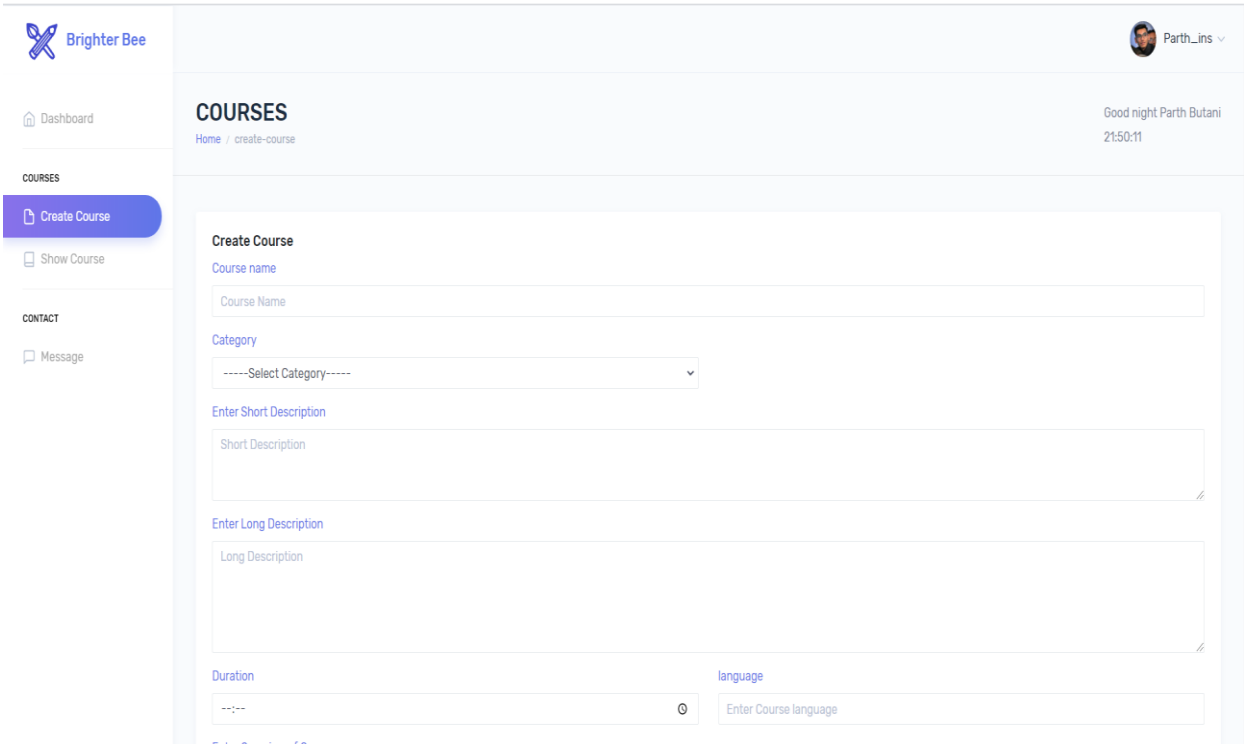
4.1.23 Pending courses



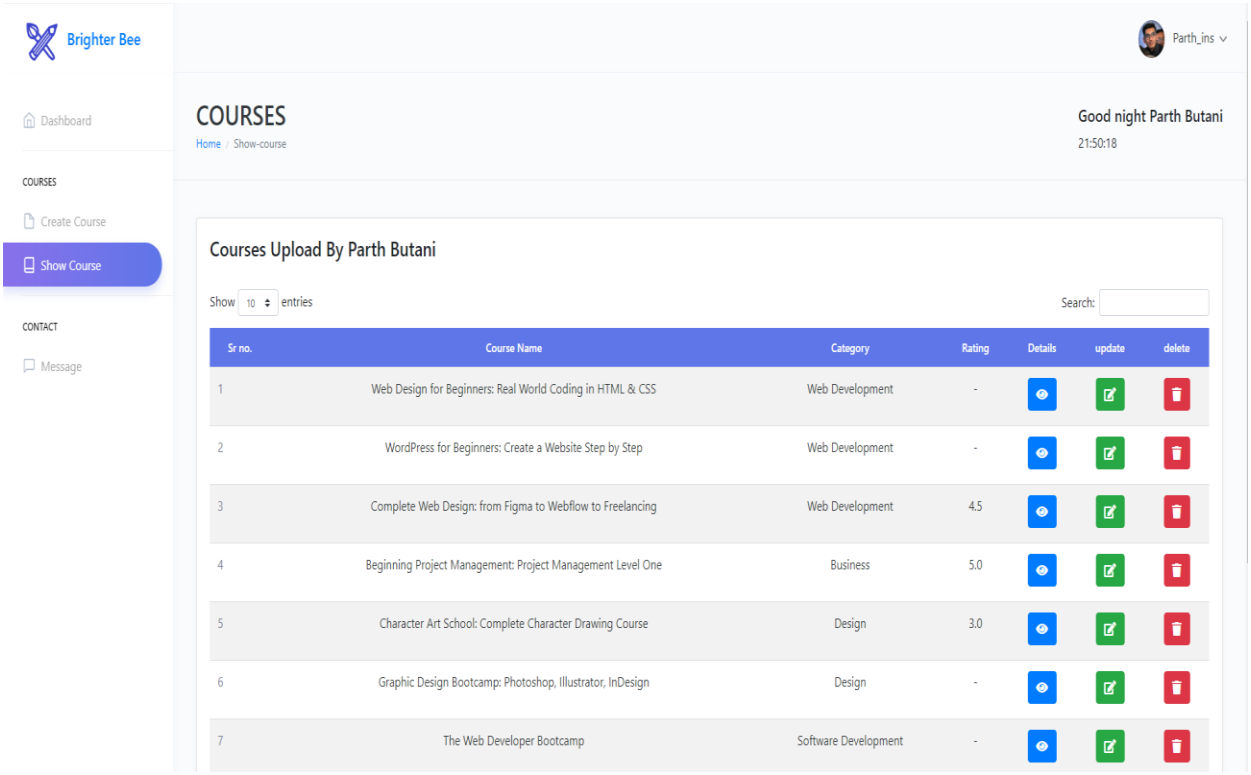
4.1.24 Message from admin to instructor



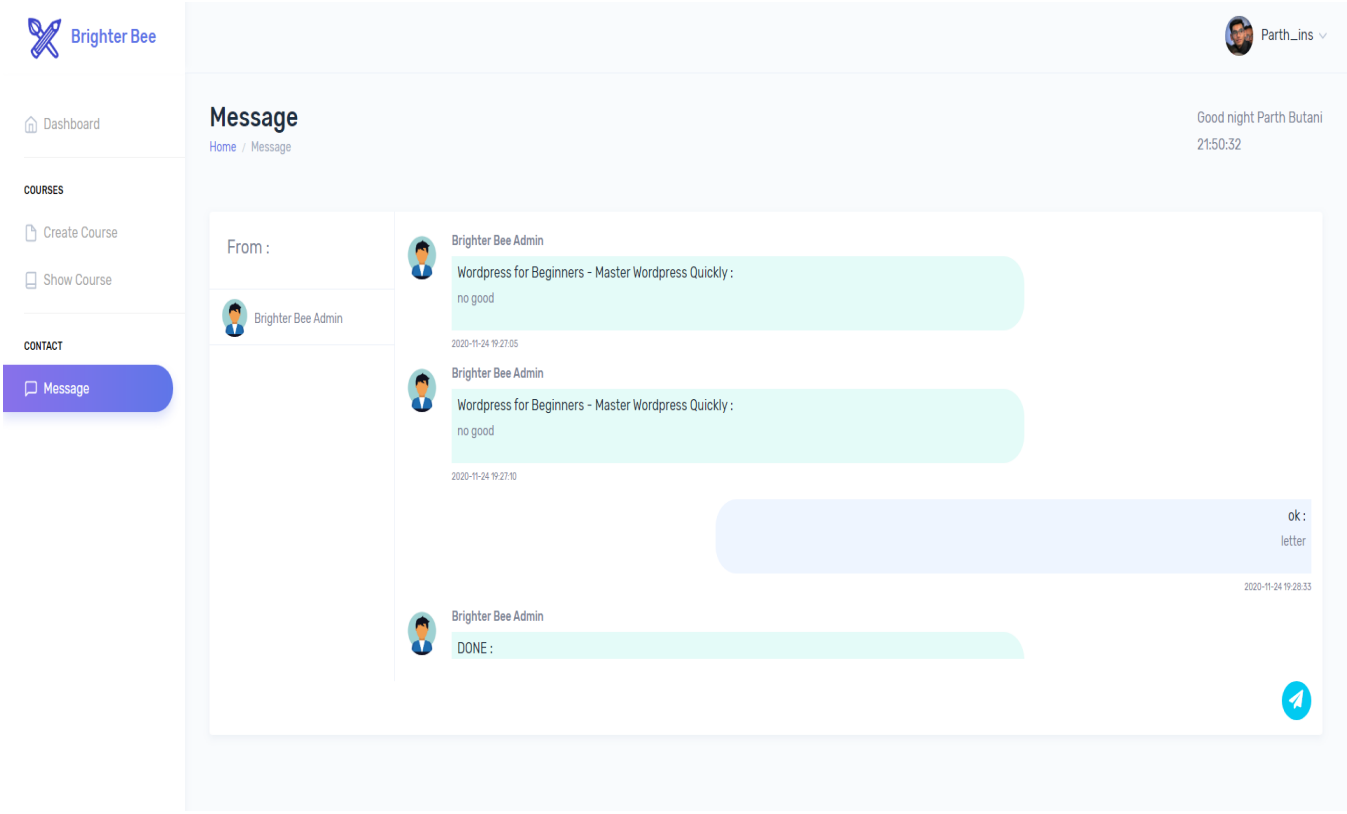
4.1.25 Instructor dashboard



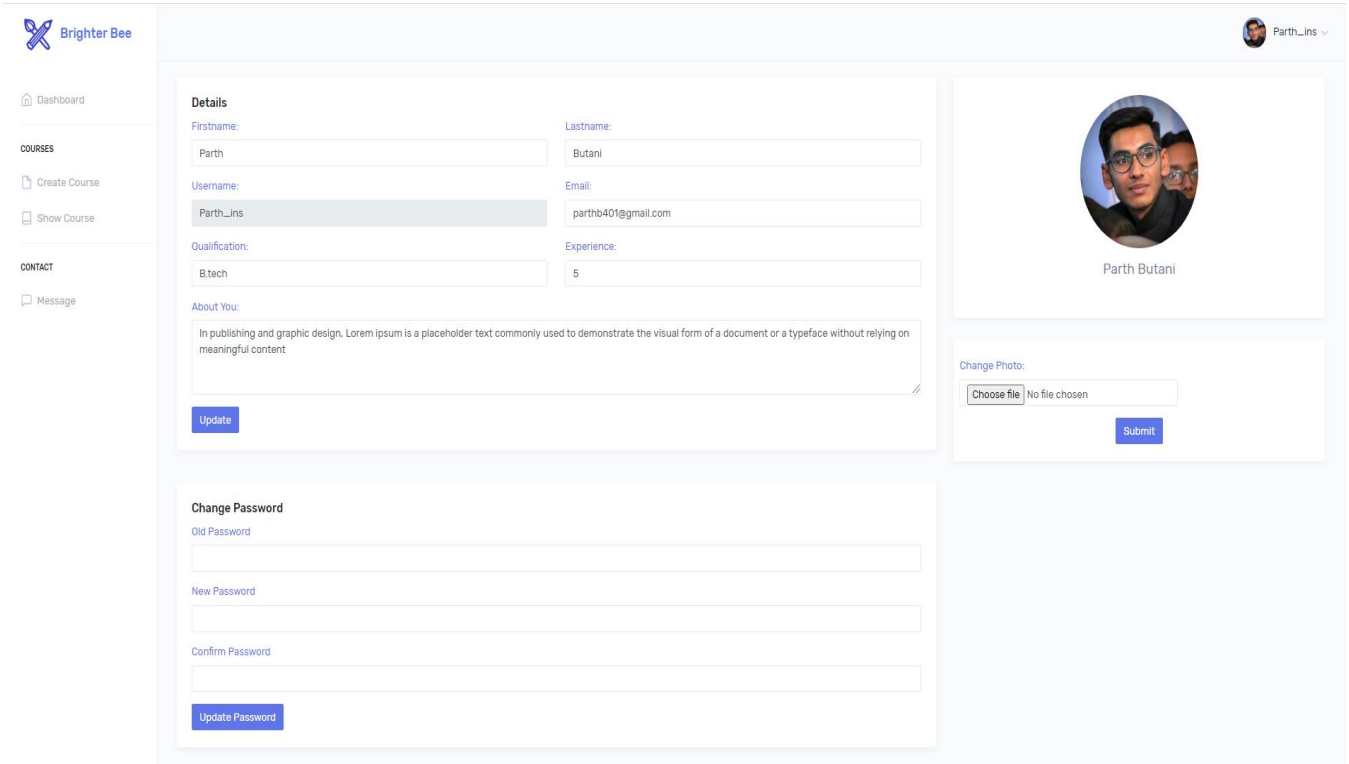
4.1.26 Create course



4.1.27 No. of courses



4.1.28 Message from instructor to admin



4.1.29 Profile (instructor)

4.2 Test Cases

Table 4.2.1 : Test Cases Table

Test ID	Case	Test Data	Expected Result	Actual Result	Pass/Fail
1	Login	- Internet Connectivity - Login ID - Password	If Login ID & password is empty or invalid and No Internet connectivity then dispay Error message otherwise Login sucessfully	If Login ID & password is empty or invalid and No Internet connectivity then dispay Error message.	Pass
2	Check Subscription	- Check payment details	If payment details verified then learner can enroll any courses otherwise can’t enroll.	If payment details verified then learner can enroll any courses.	Pass
3	Certificate Validation	- Internet Connectivity - Reference ID	If any Certificate found with this reference ID then it shows Verified otherwise shows Not verified and that certificate not provided by Brighter bee	Certificate found with this reference ID then it shows Verified	Pass
4	Update user data	- User details	User data will update	User data was updated successfully and new data	Pass

				display into profile screen.	
5	Instructor Account Status	-Registration details	If Instructor's account is activated then he/she can login and upload course otherwise can not login.	Instructor's account is activated then he/she can login and upload course.	Pass
6	Forgot password	- Email id	If email id is valid & Authorized then reset password link will be sent to email .	Reset password link will be sent if the email id is authorized and valid.	Pass
7	Logout	- Select logout	User should logout of the website and redirected to login page.	User get logout of the website and redirected to login page.	Pass

Conclusion and Future Scope

This website can access from anywhere and any time. Learner can enroll any course by taking subscription and get certificate after completion of course. The instructor can also provide their course which can be uploaded and can give knowledge to others to develop their skills.

In future, try to develop application of this website to support platform such as Android, iOS.

References

Web references

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[2] [Online] https://www.php.net/

[3] [Online] https://www.w3schools.com/xml/ajax_intro.asp

[4] [Online] https://datatables.net/manual/index