

PRODUCT DESIGN

Project: Course Court

Team: Group9

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Revision History

Version	Date	Description	Author
1.0	23/9/2023	Class diagram	Prathima Chowdary Sudalagunta Prathyusha Jampala
	23/9/2023	ER diagram	Prathyusha Jampala Prathima Chowdary Sudalagunta
	23/9/2023	Sequence diagrams(1-5)	Manasa Karumanchi
	23/09/2023	Sequence diagrams(6-10)	Siva ManiKanta Lakumarapu
	23/09/2023	Information Architecture diagram	Priyanka Chirumamilla Manasa Karumanchi
	26/09/2023	Document composition	Prathima Chowdary Sudalagunta Prathyusha Jampala Siva ManiKanta Lakumarapu Manasa Karumanchi Priyanka Chirumamilla
1.1	24/09/2023	Class diagram extension	Prathima Chowdary Sudalagunta Prathyusha Jampala
	24/09/2023	Sequence diagrams check and extensions	Siva ManiKanta Lakumarapu Manasa Karumanchi
	24/09/2023	UI mock ups design process analysis	Priyanka Chirumamilla Prathyusha Jampala Prathima Chowdary Sudalagunta
1.2	25/09/2023	UI mock-ups icons and pictures collection	Siva ManiKanta Lakumarapu Manasa Karumanchi
	25/09/2023	UI mock-ups(1-10)	Priyanka Chirumamilla Prathyusha Jampala

			Prathima Chowdary Sudalagunta
	25/09/2023	Design rationale	Prathima Chowdary Sudalagunta Prathyusha Jampala
1.3	26/09/2023	Check of class diagram, ER diagram and Information Architecture system	Siva ManiKanta Lakumarapu Manasa Karumanchi Priyanka Chirumamilla
	26/09/2023	Check of Sequence diagrams, UI icons and pictures	Priyanka Chirumamilla Prathyusha Jampala Prathima Chowdary Sudalagunta
	26/09/2023	Finalization of UI mock-ups and logo	Siva ManiKanta Lakumarapu Manasa Karumanchi Prathyusha Jampala Prathima Chowdary Sudalagunta
	26/09/2023	Document composition	Prathima Chowdary Sudalagunta Prathyusha Jampala Siva ManiKanta Lakumarapu Manasa Karumanchi Priyanka Chirumamilla

Class Diagram

- **Registration :**

Registration contains the information like First name ,Last name,Date of Birth, Email_id ,user_id,password of the new user.here new user will create the account to the portal using registration.

- **User :**

This class maintains the information like Email_id ,password of the users who are registered and this also contain the list of courses the user enrolled for and user can Login and Logout from the system.

- **Admin:**

Users with admin role will also be part of the courses.They will add/delete/update the contents of the course.Based the requirement ,the admin will perform these three operations on the system and also admin can be able the manage the user accounts as well.

- **Courselist:**

This contain the information regarding the courses.These will have courseid,coursename for identification and admin will have access to add/delete/update the courses the in the courselist.

- **Course :**

This course class contain the courseid,course description,content of the course, textbook (course related) and quiz for the self assessment of the users. and admin will have the access to create, update, and delete a course.

- **Quiz:**

This quiz class will contain the quiz_id,user_id,course name,courseid and .Users will take the quiz under each course section and admin has the access to add/delete a quiz.

- **Queries**

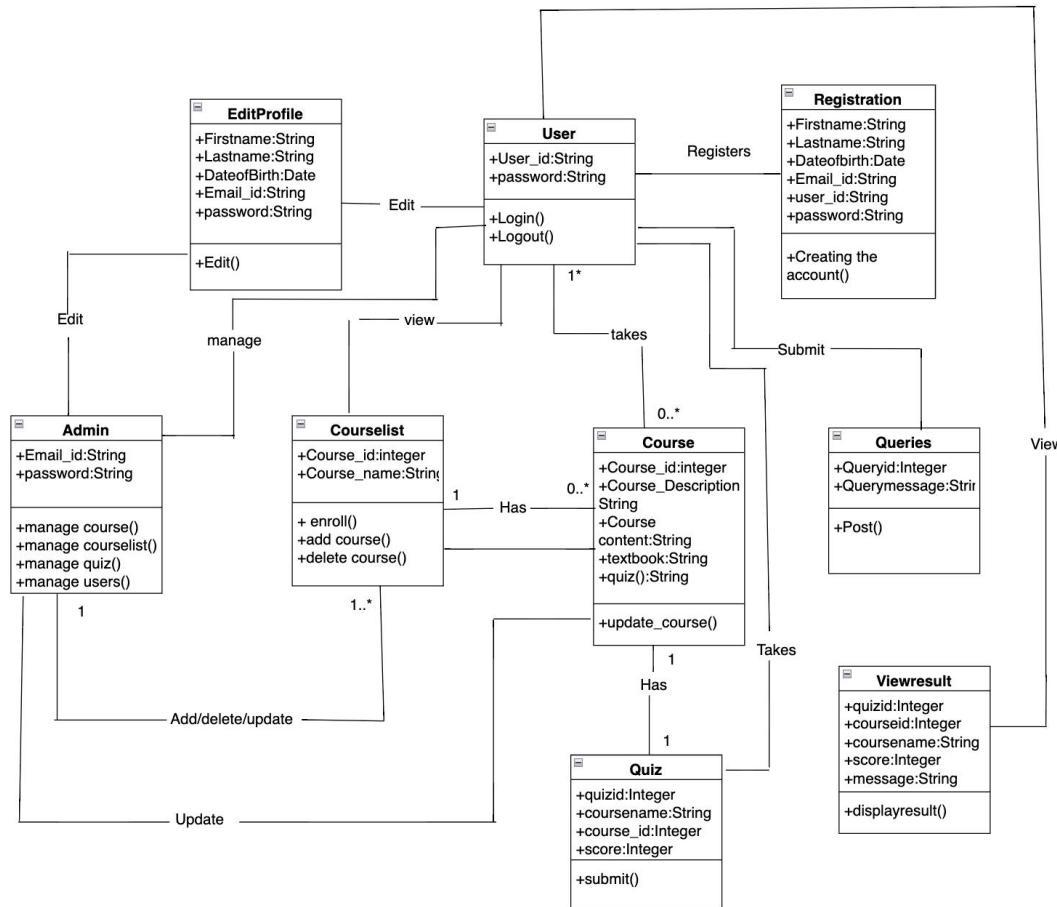
This will have the query-id, query message and Submit method which allows the user to their queries where users can make their queries regarding the portal.

- **View Result :**

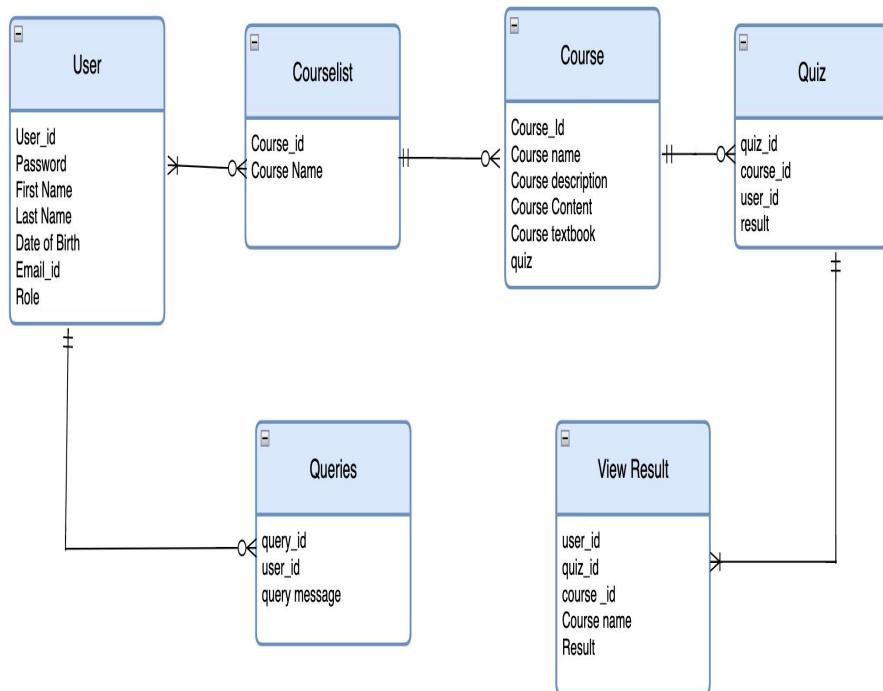
This class will hold information of results of the quizzes attempted by the user under each course.

- **Edit profile :**

This class contains the information users individual information like First name ,Last name,Date of Birth, Email_id ,user_id, password and an edit() method which allow sthe user to edit their personal information.

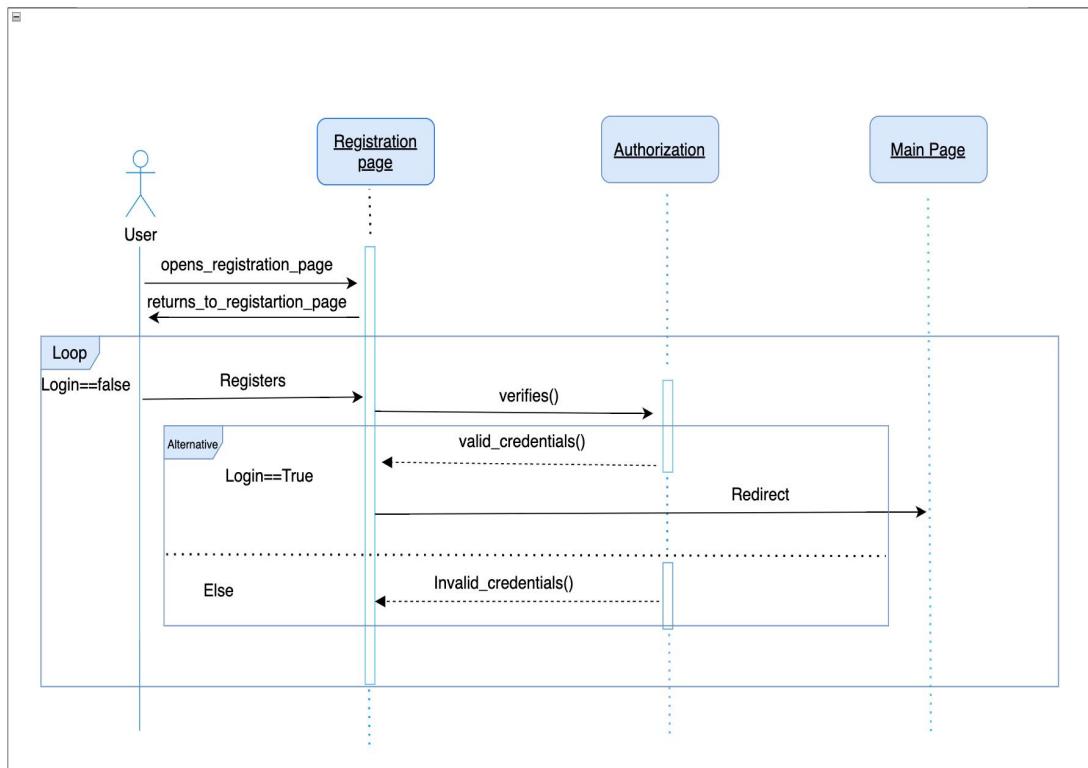
Class Diagram:

ER Diagram(s)

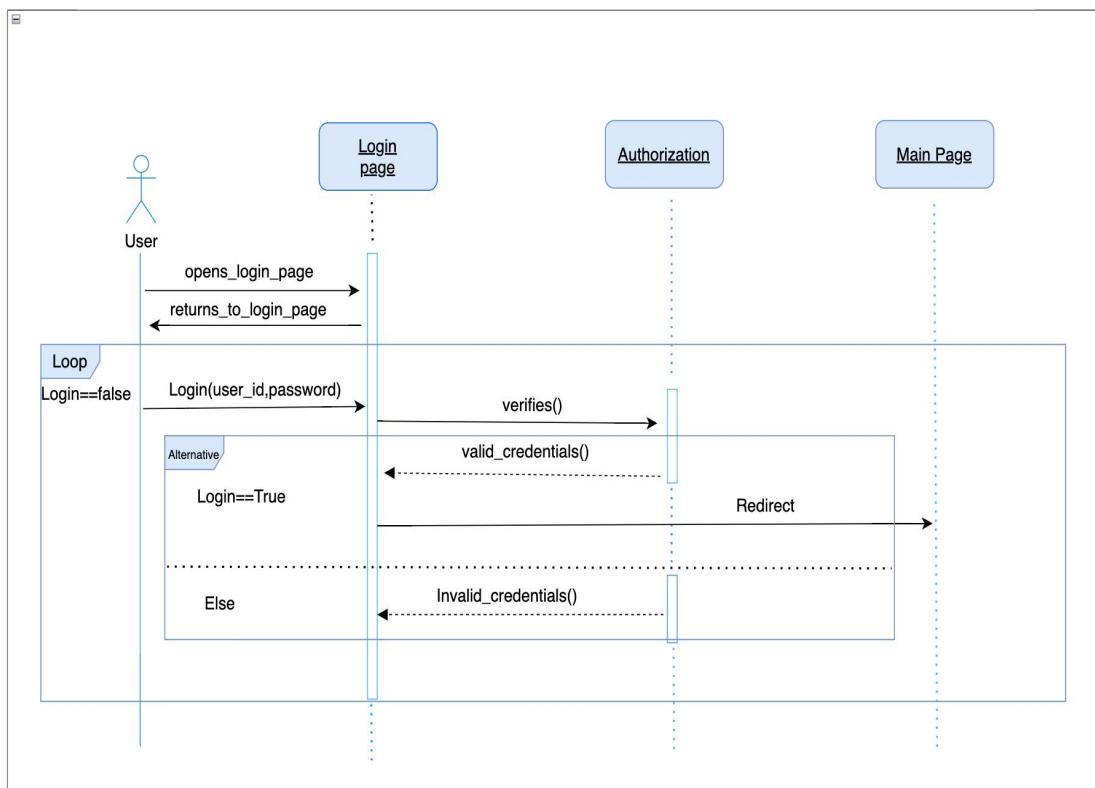


Sequence Diagram(s)

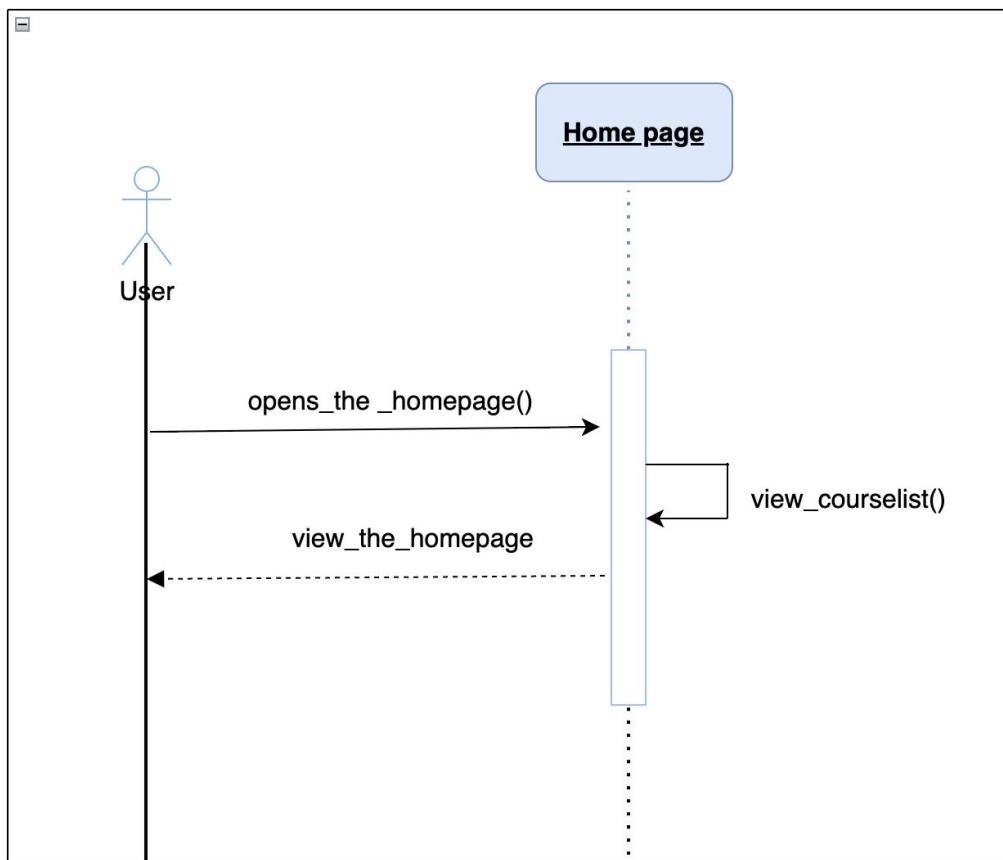
1. Registration



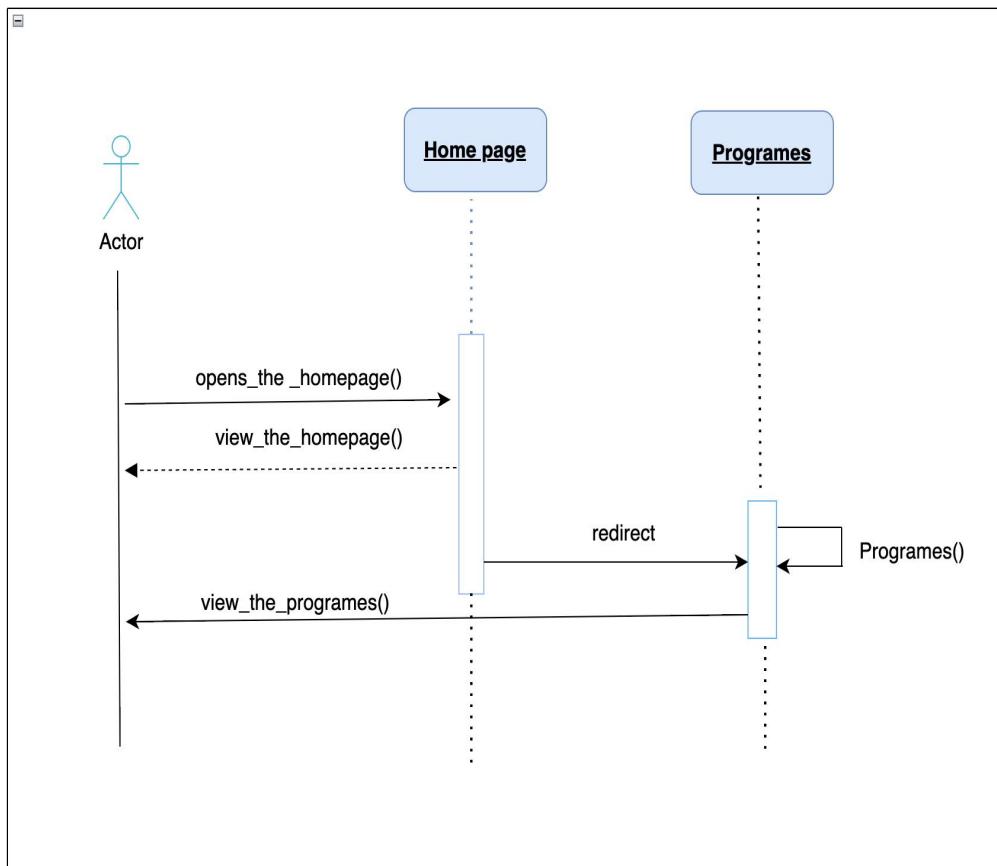
2. Login



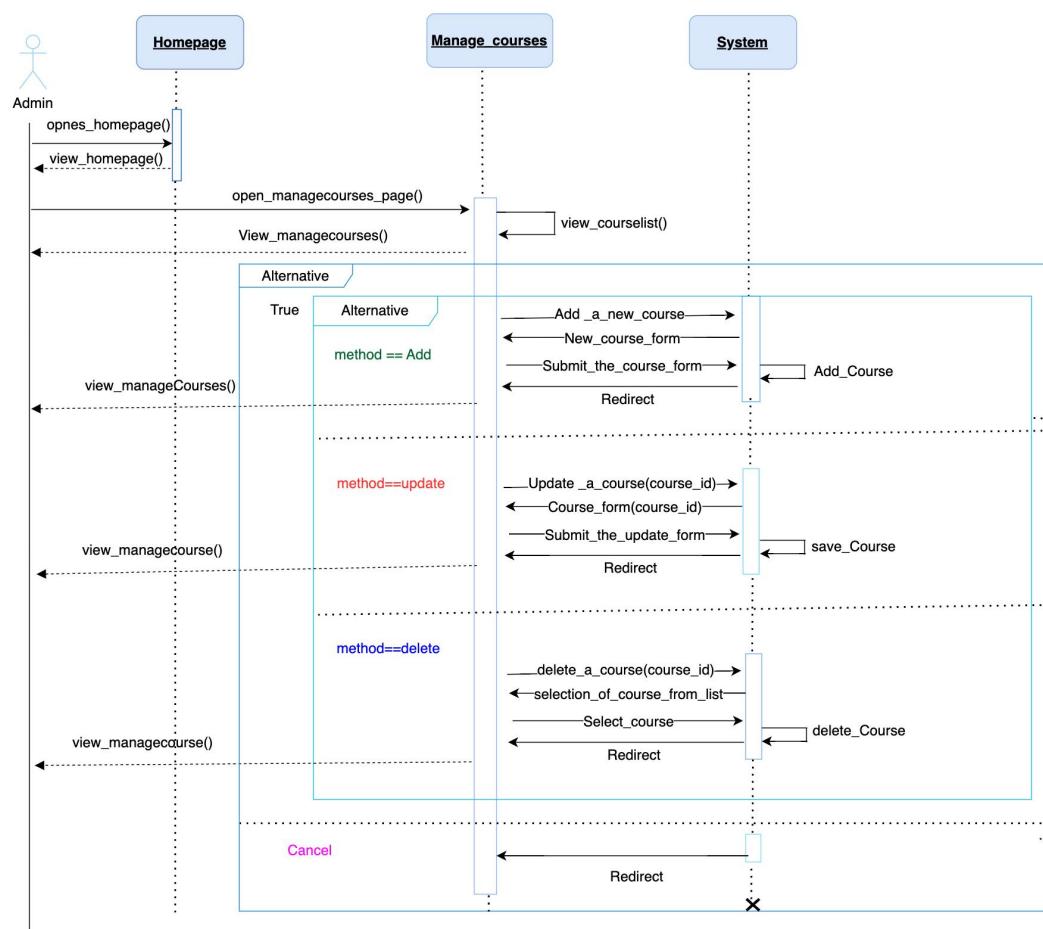
2. View Courselist



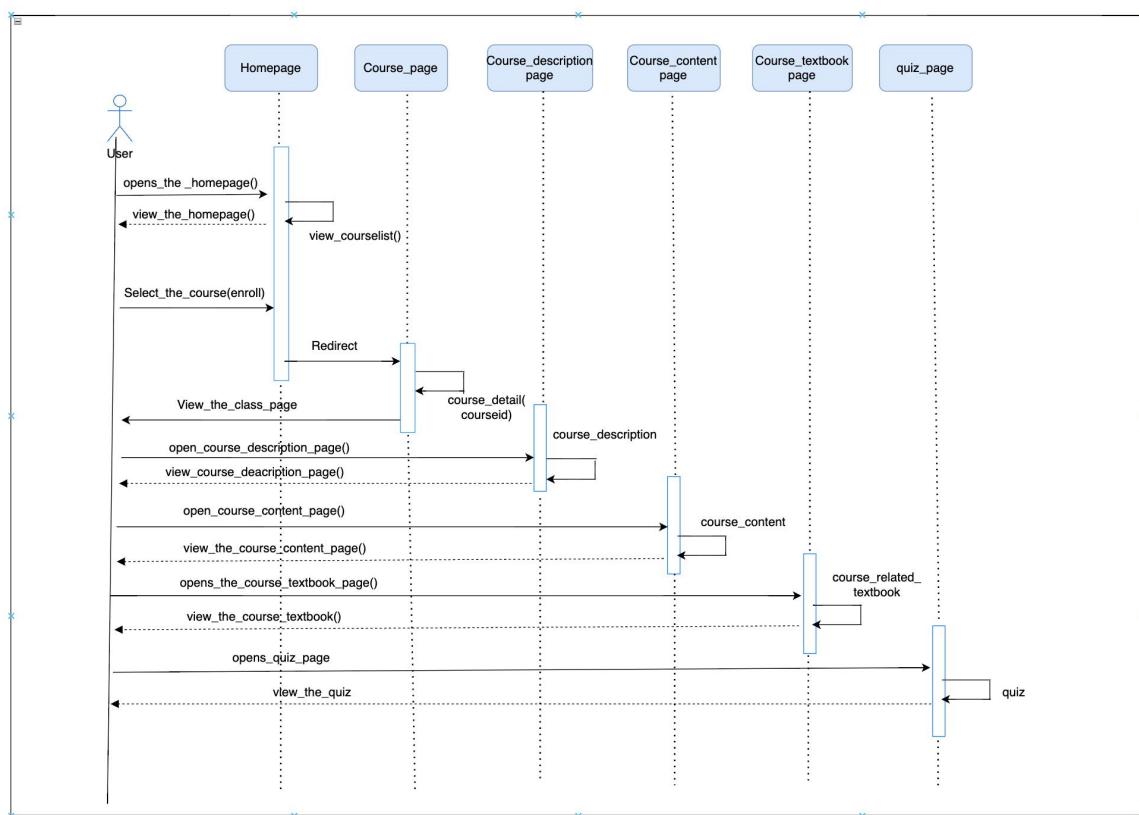
4. View Programs:



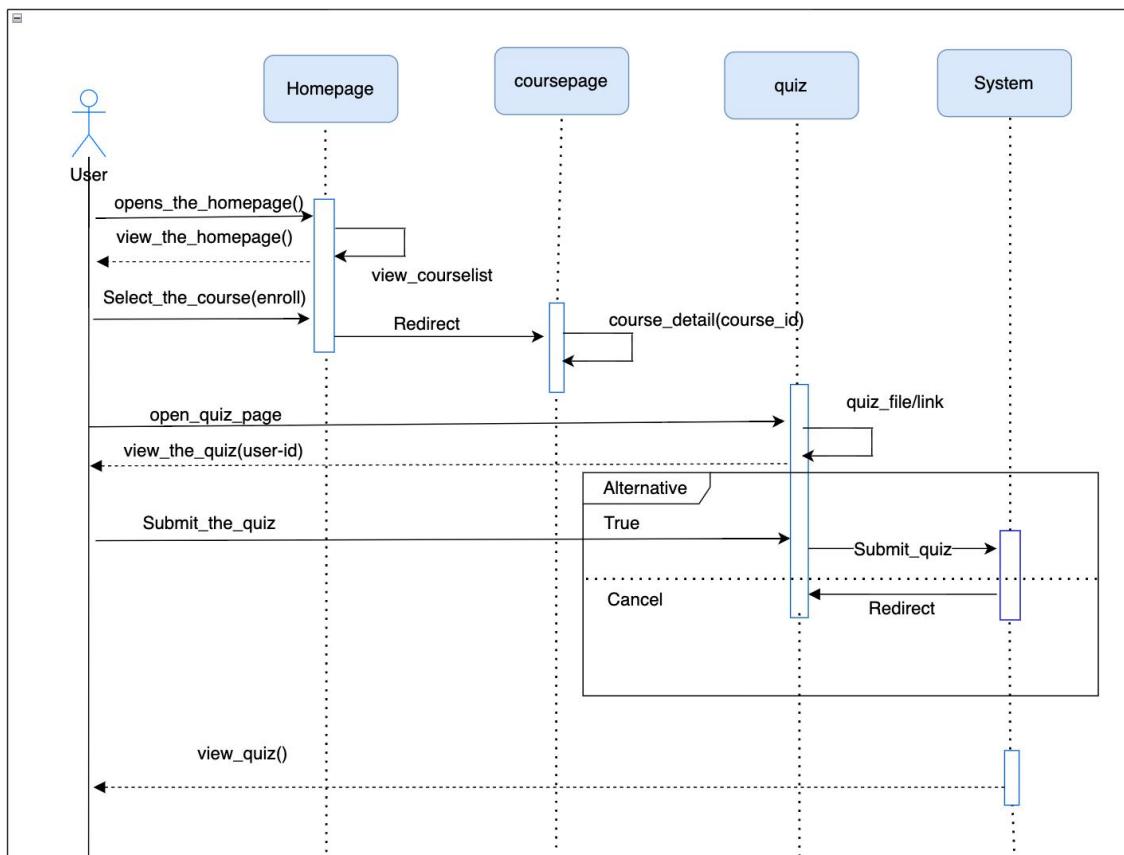
5. Manage Courses:



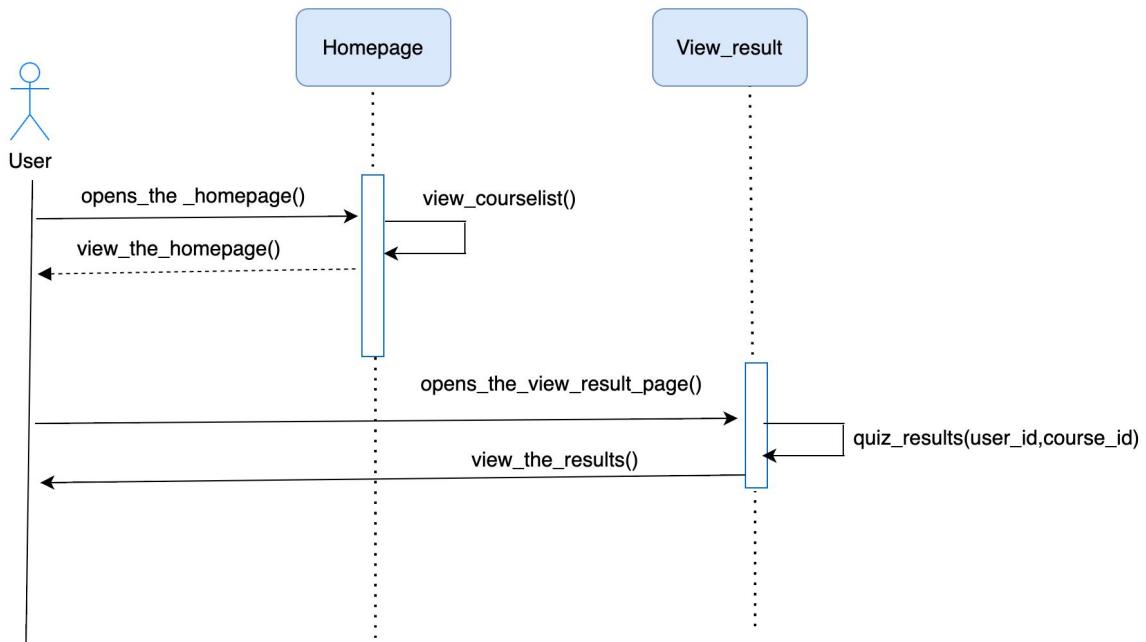
6 .Coursepage:



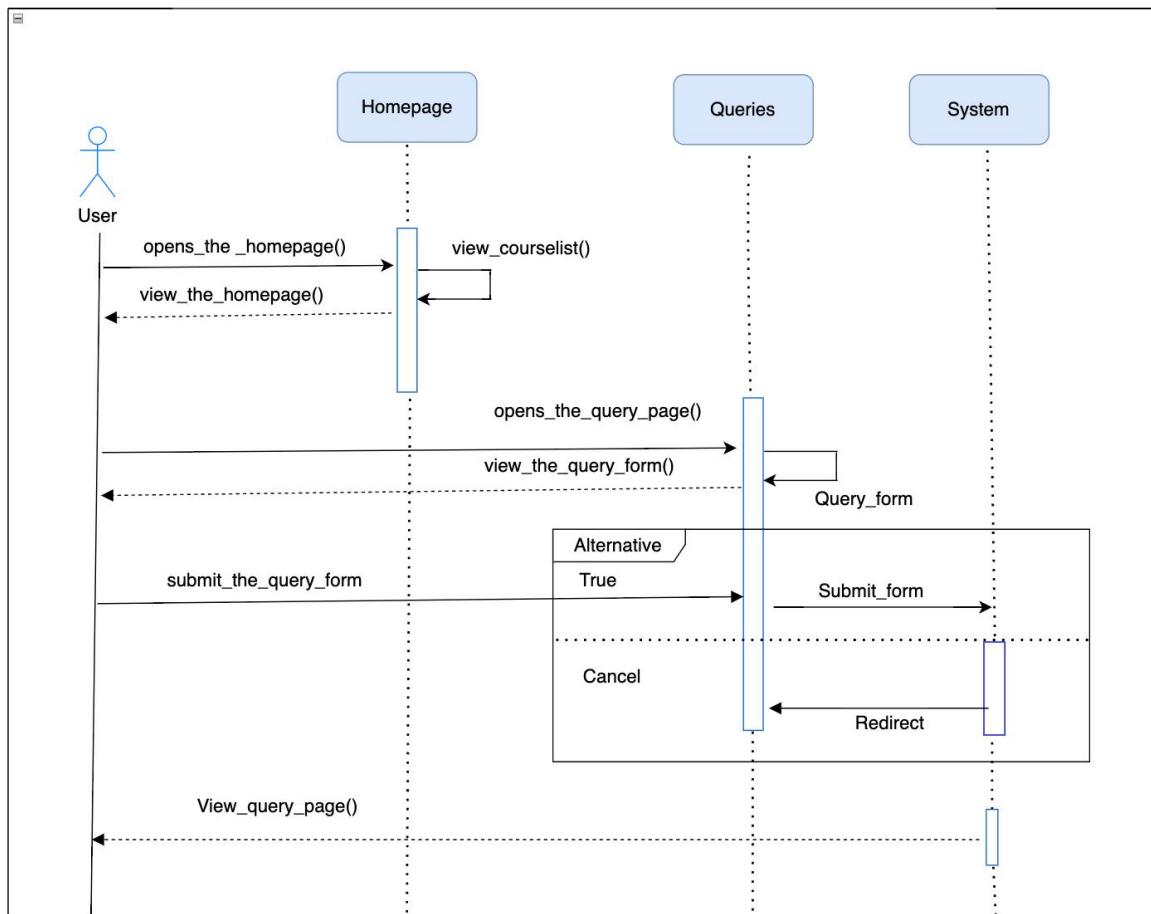
7. Quiz



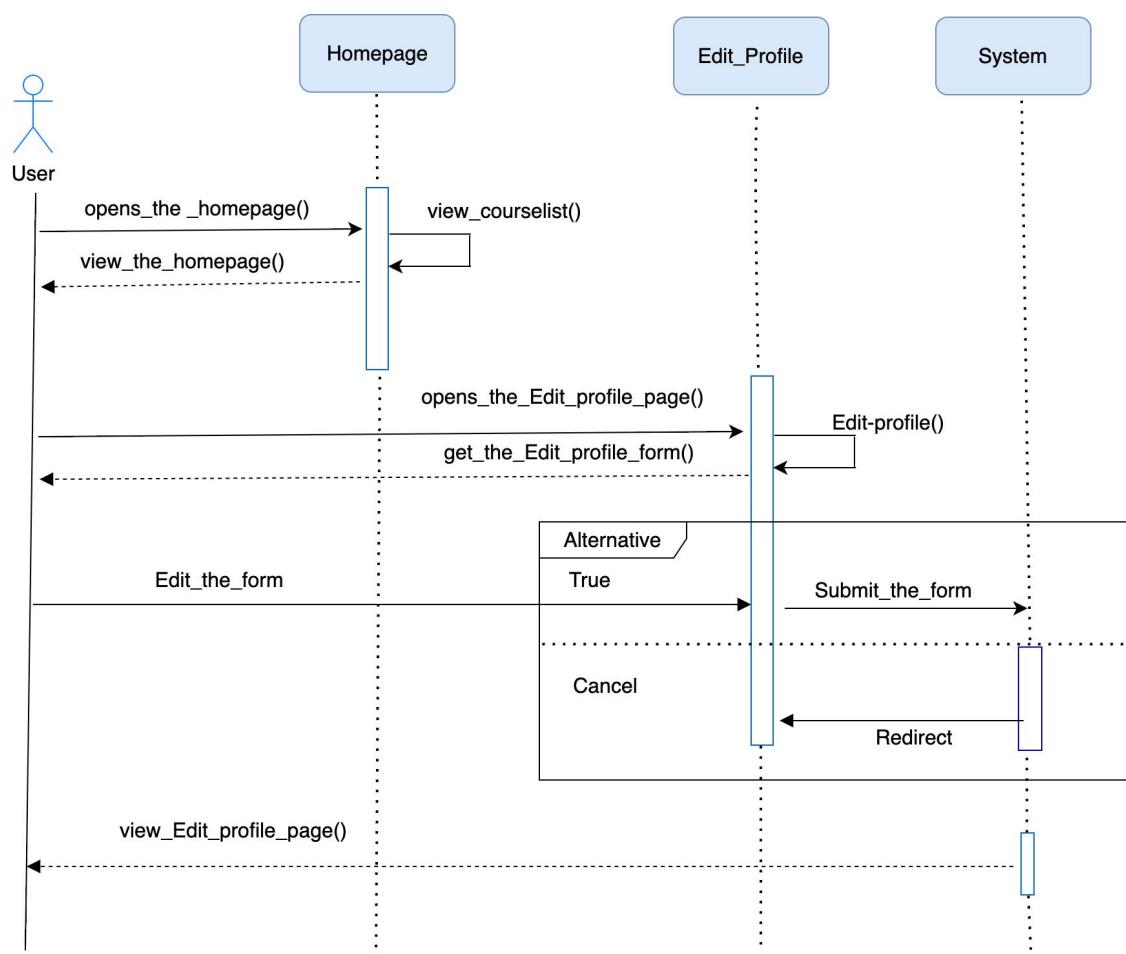
8. View Result:



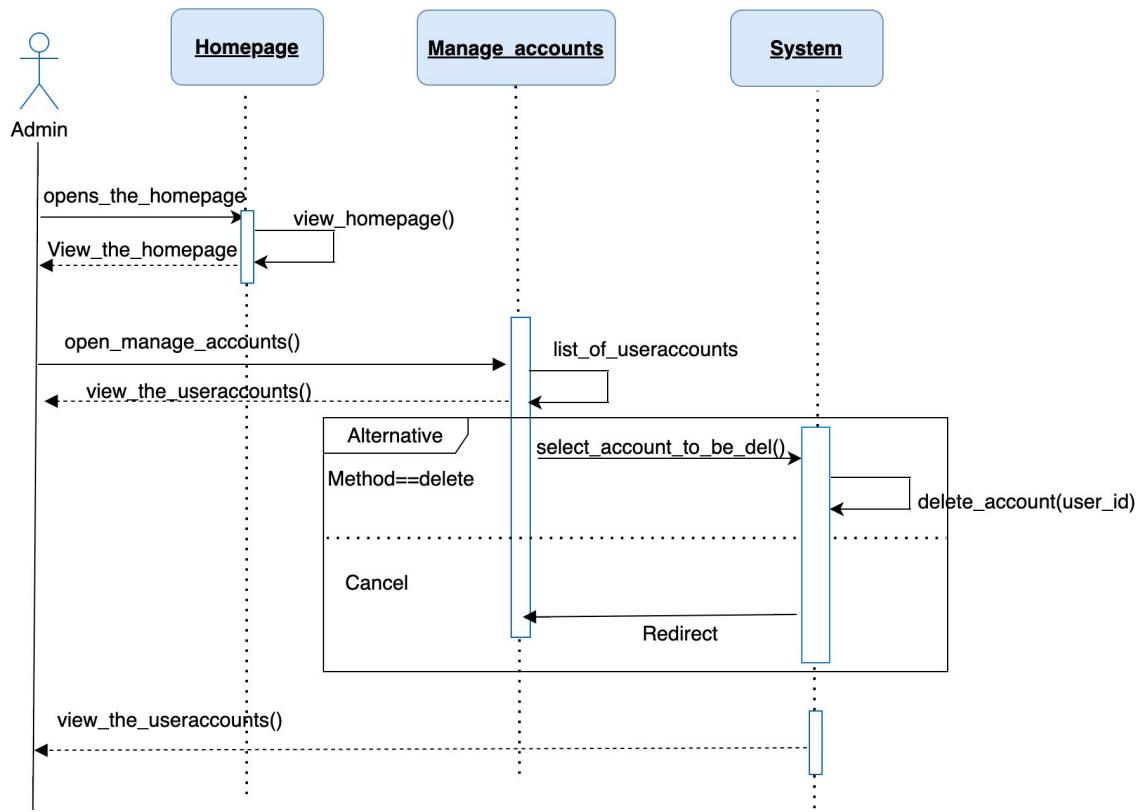
9. Queries:



10. EditProfile:



11. Manage accounts:



Design Rationale

The design for our Education web page starts with registration/login pages for making the portal easier for the user while accessing the features. The first page of the portal represents logo of the portal ,registration and a login option. If the user has an account he can choose the login option where the user has to fill the registered email_id and password. If the user does not have the account then the user has to choose the “Registration” option where he/she has to enter the details (Firstname, Lastname, Date of Birth, email_id, user_id and password) and then create an account. After that the system will allocate the user either as an user or the admin. If the user has already registered with the portal then he would just login into the portal by providing the accurate credentials.

User:

Once the user login to the portal,then he /she will be able to see a simple navigation bar with various features and each feature is assigned with a simple logo representing that feature and then a list of courses that are available in the portal are displayed on the home page.and the home page maintains a scroll-bar to display the various courses in the portal when we scroll down the scroll bar.

The home page is designed with a simple user friendly interface and a educational related image on the background and the portal is designed with effective colors and features which makes the user comfortable for using the portal.

The navigation bar is most important aspect in the portal which is here designed simply and provide good accessibility to the user.In this portal the navigation bar contains the features like Programs,view results,editprofile,queries and then logout features.Each feature has its own meaning.If user click on the “Programs “ option then it will display the information about the portal and programs that the portal is offering, when the user clicks on the “Results” then it will display the list results of the quizzes that the user has taken while doing the courses.After that the navigation contains the “Edit profile” ,by clicking on that the user will be able to edit their personal information like Firstname, Lastname, Date of Birth, Email_id and password and if the user do not want to edit their profile then he/she can simply click on the “Cancel” option on profile page then the user will automatically redirect to the home page.

After that we have “query” option on the navigation bar ,If the user has any queries regarding the portal he/she can click on this option and after clicking on that user will get a form to fill their queries and have submit option to submit their queries and if the user decides not to post the query then he/she can just simply click on the “Cancel” option.

And Lastly we have “sign-out” option .This is performed by the user when the user wants to logout from the portal.Just by clicking on sign-out option on navigation, the user will automatically signs out from the portal which leads to the First page of the portal with login and register options.

After the navigation bar,in the home page we have multiple courses list displayed on the home page under the navigation bar.User can select the course based upon their interest among those multiple courses and can enroll to the course just by clicking in the enroll sign on the course.

Once the user click the enroll option,then it will automatically navigate to that course page and display the option like course description,course content,course textbook and a quiz for self assessment of the user.If the user clicks on the course description option, then the user will get the description of that course .if the user clicks on the course content he will get access to the content of the course .If the user clicks on the “course textbook” option the the user will get the course related textbook and user can view it.And if the user click on the “quiz” then the user will be asked to take a quiz which is related to the course that he/she has done and then submit the quiz after answering the quiz.This course page features are similar for all the other courses on the website as well.

Admin:

Admin is the one who has control over the entire website means that means he/she can manage all the courses and content of the portal.For doing all those operations ,First admin has to the login into the website with admin credentials by clicking on the login option on the first page of the portal.After clicking on the login option then admin will enter the admin’s credentials and if the credentials or accurate then admin log in to the home page.

After login to the portal ,then admin page will open and then admin can see to features.One is “Manage courses” and “Manage User accounts” and “logout” option. If the admin click on the “Manage courses” then he/she will be able to see the options “Add a Course”,”Delete a Course” and “Update a Course options”.If the admin wants to add the course then he/she should click on add option ,if the admin wants to delete a course from the portal and then the admin has to the click on the “Delete a course” and if the admin wants to update the course, then admin has to click on the “Update a course” to update any content on the course that already exist on the portal.

If the admin click on the “add a course” option ,them admin will see a form that contains related blanks to add the course such as “Course name”,”Course description”,”Course textbook” and “quiz” .The admin has to enter all these details in order to add a course to the

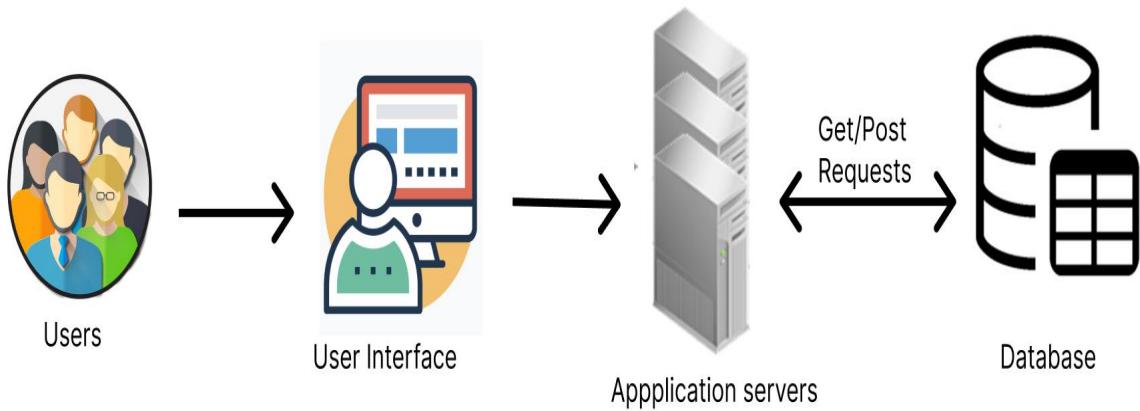
portal.If the user fills all those details and then click on the “ Save” on the add course page then the added will be displayed on the courselist on the home page of the user panel.If the admin do not want to add a course then admin can simply click on the “ Cancel” option beside the “Save” option which will redirect to the home page of the admin.

If the admin click on the “delete a course”,then the system will provide the list of courses available in the portal and then admin has to select the course that admin wants to the delete .After selection of course that has to be deleted,then if the admin click on the “delete” option on the “Delete” option then course will be deleted from the portal.If the admin do not want to delete a course then admin can simply click on the “Cancel” option beside the “Delete” option which will redirect to the home page of the admin.

if the admin click on the “update a course”,then the system will provide the list of courses available in the portal and then admin has to select the course that admin wants to the update .After selection of course that has to be updated,then the admin will get access to edit the course and course content.After Updation if the admin click on the “update” option, then course will be updated in the portal.If the admin do not want to update a course then admin can simply click on the “ cancel” option beside the “Update” option which will redirect to the home page of the admin.

If the admin click on the “Manage accounts” options ,then admin will get access to the list of user accounts listed in a table and then admin has to select the user that has to be deleted .After the selection of the user account,if the admin click on the “Delete” option, then selected user will be deleted from the database and that user will no have access to the content of the portal.Finally if the admin do not want to manage any of the courses or accounts then just by clicking in the “sign-out” option admin will be logged out the admin page.

Information Architecture Diagram



User Interface Wireframe(s)/Screenshot(s)

- Color

Primary



Secondary



- Stylesheet

We are going to use *Bootstrap* to style the UI.

- Logo



1. Website page

This following mock up represents the initial page of the website and This Page shows the website name and provides register and login buttons for the user.



2. Registration page:

This page allows new users to register to the website.

Desktop - 2

The image shows a registration form titled "Register" on a yellow background. The form includes fields for First Name, Last Name, Date of Birth, Email, User-id, and Password, each with a corresponding input box. At the bottom are "Register" and "Cancel" buttons. To the right of the form is a cartoon illustration of a man with brown hair, wearing a white shirt and blue tie, holding a stack of books. The background of the entire image is light gray.

First Name
Last Name
Date of Birth
Email
User-id
Password

Register Cancel

3. Login:

This page allows the user to sign-in to the website by entering their credentials.



4. Home page - Course list

This page allows the user to access the list of courses on the website.

Desktop - 4

The screenshot shows the Course Court home page with a yellow header bar. The header contains the logo 'Course Court' and several navigation icons: 'Programs' (info icon), 'Edit Profile' (person icon), 'Results' (person with star icon), 'Query' (question mark icon), and 'Signout' (signout icon). Below the header, there are three course cards, each featuring a small image and an 'Enroll' button. The first card shows two people at a desk, the second shows two people in a classroom, and the third shows a person at a desk. Each card is labeled 'Course-1', 'Course-2', or 'Course-3' respectively.

Course-1 Course-2 Course-3

5. Nav - Edit Profile

This page allows user to change/update their personal details and password for the website.

Desktop - 5

The screenshot shows a desktop view of the Course Court website. At the top, there's a navigation bar with icons for Programs, Edit Profile, Results, Query, and Signout. The main content area has a yellow header "Edit Profile". Below it are five input fields: "First Name", "Last Name", "Date of Birth", "Email", and "Password". At the bottom are two buttons: "Edit" and "Cancel". To the right of the form is a cartoon illustration of a boy holding a stack of books.

6. Nav - Programs

This page shows the information about the “course court” website and contact details of the website.



7.Nav - Results

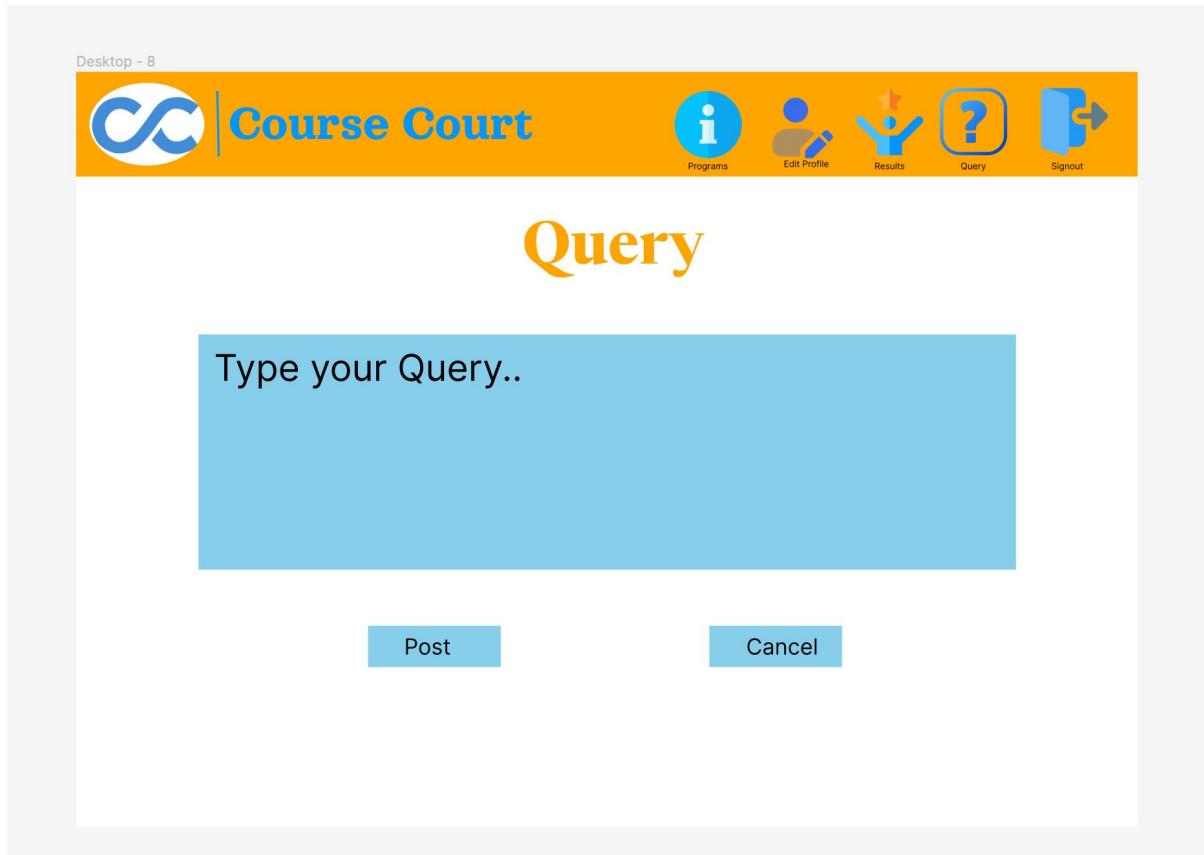
This page allows user to view the results of the quiz they have taken for different courses.

The screenshot shows a desktop application window titled "Desktop - 7". The main header bar is orange with the "Course Court" logo on the left, which consists of a stylized blue infinity symbol followed by the text "Course Court". To the right of the logo are five icons with labels: "Programs" (blue circle with white "i"), "Edit Profile" (user icon), "Results" (blue person with a star icon), "Query" (blue square with a question mark icon), and "Signout" (blue square with a right-pointing arrow icon). Below the header is a large yellow banner with the word "Results" in bold black font. Underneath the banner is a table with three columns: "Course", "Score", and "Message". The table has 6 rows, but all cells are currently empty.

Course	Score	Message

8. Nav - Query

This page allows user to submit any queries they have about the website.



9. Course page

This page appears after you enroll into a course on course list page which shows overview on the course.

Desktop - 9

The screenshot shows a desktop application window titled "Course Court". At the top, there is a navigation bar with icons for "Programs", "Edit Profile", "Results", "Query", and "Signout". On the left side, there is a sidebar with links for "Description", "Content", "Textbook", and "Quiz". The main content area features a large image of a woman smiling and writing in a notebook. Overlaid on the image is the title "Python Programming Overview" in large orange text. Below the title, there is some placeholder text: "ajhsdgajkshdhgkjasadnsasnasmn ajhsdgajkshdhgkjasadnsasnasmn ajhsdgajkshdhgkjasadnsasnasmn ajhsdgajkshdhgkjasadnsasnasmn".

10. Course description- detail

This page shows the description of the particular course user has enrolled.

The screenshot displays the Course Court application interface. At the top, there is a navigation bar with icons for Programs, Edit Profile, Results, Query, and Signout. The main content area features a large image of a person working at a desk with a laptop and a notebook. Overlaid on this image is the title "Python Programming". To the left of the main content, there is a sidebar with links for Description, Content, Textbook, and Quiz. The "Description" link is highlighted in blue. The main content area contains a "Description" section with the text "Python programming" repeated five times.

Link	Description
Description	Python programming Python programming Python programming Python programming Python programming
Content	Python programming
Textbook	Python programming
Quiz	Python programming

11. Course- content - detail

This page allows user to access the content of the course he/she has enrolled.

The screenshot shows a web-based application titled "Course Court". The header features a logo with a stylized 'C' and 'S' intertwined, followed by the text "Course Court". To the right of the header are five navigation icons: "Programs" (info icon), "Edit Profile" (user icon), "Results" (person with star icon), "Query" (question mark icon), and "Signout" (sign-out icon).

The main content area displays course information for a "BEGINNERS PYTHON" course. The course title is prominently displayed in large blue letters. Below the title is a thumbnail image of a man holding a Python logo. A video player interface is overlaid on the thumbnail, showing the title "Python for Beginners Tutorial", a description, and a YouTube URL: <https://youtu.be/b093aqAZiPU?si=-6EYLqwh1LRX2gYE>. The video player also shows a progress bar at 7:28 PM and a play button.

On the left side of the main content area, there is a vertical sidebar with four menu items: "Description", "Content" (which is highlighted in blue), "Textbook", and "Quiz".

In the background, there is a blurred image of a person working on a laptop.

12. Course - Textbook

This page allows user to access the textbooks related to the course.

The screenshot shows a web-based application with a yellow header bar. On the left, there's a sidebar with four items: "Description", "Content", "Textbooks" (which is highlighted in blue), and "Quiz". The main content area has a blue background and contains the text "Link for the Textbook" followed by a blue link: <https://wiki.python.org/moin/PythonBooks>. The background of the main content area features a photograph of a person writing in a notebook while sitting at a desk with a laptop.

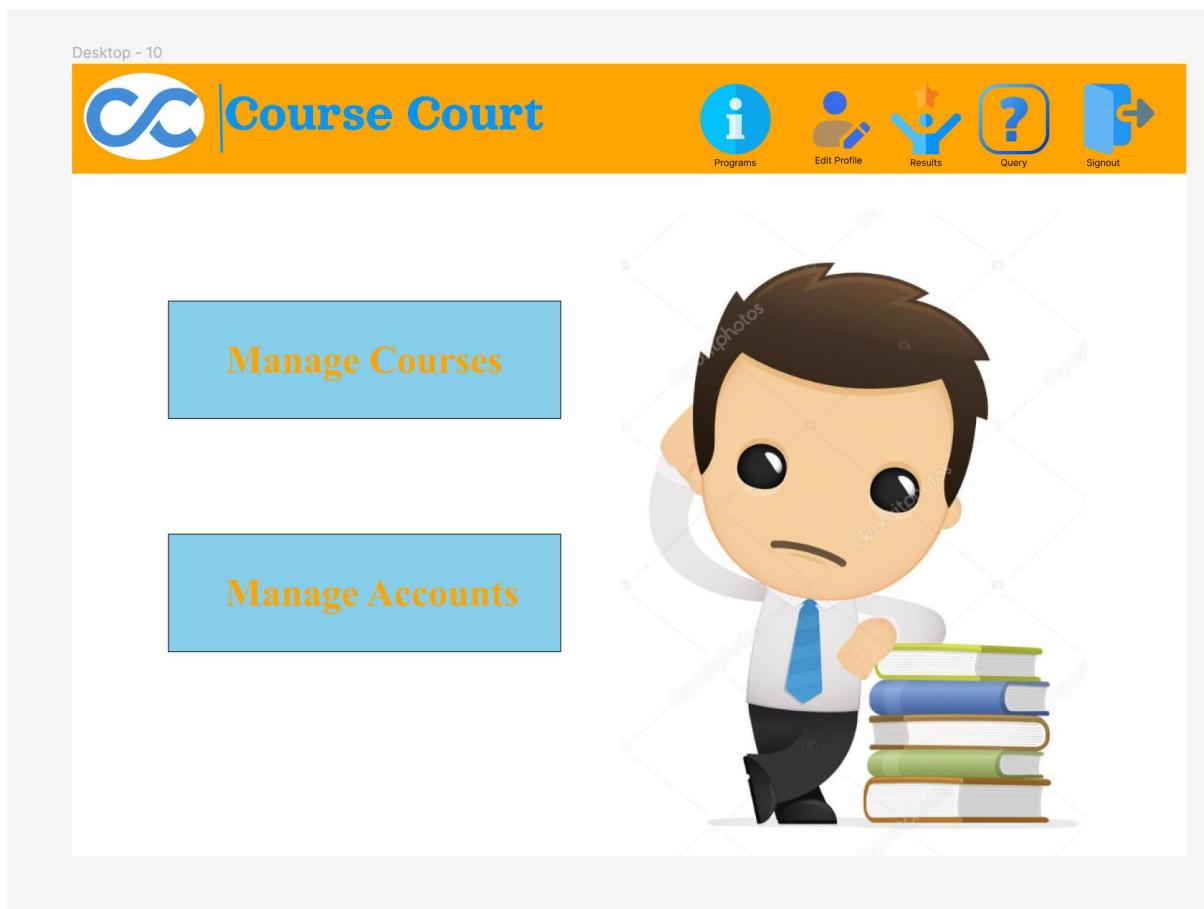
13. Course - Quiz

This page allows user to take the quiz after he/she has enrolled and finished the course.

The screenshot shows a web application interface for 'Course Court'. At the top, there's a navigation bar with icons for Programs, Edit Profile, Results, Query, and Signout. Below the navigation bar, there's a large orange sidebar on the left containing links for Description, Content, Textbooks, and Quiz. The main content area is a blue box containing the text 'Link for the Quiz' and a URL: <https://www.w3schools.com/quiztest/quiztest.asp?qtest=PYTHON>. In the background, there's a blurred image of a person working at a desk with a laptop and a notebook.

14. Admin profile

The page allows admin to manage courses and users in the database.



15. Manage courses - Admin

This page allows admin to manage the course and allows him to perform add, delete and update operations on the courses.

Desktop - 11

The screenshot shows a desktop application window titled "Course Court". The header bar is orange with the logo "Course Court" and several icons: a blue circle with an "i", a user profile, a person with a star, a question mark, and a signout arrow. Below the header, the main content area has a light gray background. On the left, there are three yellow rectangular buttons with black text: "Add Course", "Delete Course", and "Update Course". To the right of these buttons is a cartoon illustration of a man with brown hair, wearing a white shirt and a blue tie, holding a stack of five books (green, blue, white, green, brown). The overall theme is educational management.

16. Manage courses - Add course- Admin

This page allows admin to add a course into the website.

Desktop - 12

The screenshot shows a web application interface for managing courses. At the top, there is a navigation bar with icons for Programs, Edit Profile, Results, Query, and Signout. The main header is 'Course Court'. On the left, there are three buttons: 'Add Course' (highlighted in blue), 'Delete Course' (highlighted in orange), and 'Update Course'. A central modal window titled 'Add Course' contains fields for Course Name, Description, Contents, Textbook, and Quiz. At the bottom of the modal are 'Save' and 'Cancel' buttons. The background features a faint illustration of a person sitting at a desk with books.

Add Course

Course Name

Description

Contents

Textbook

Quiz

Add Course

Delete Course

Update Course

Save Cancel

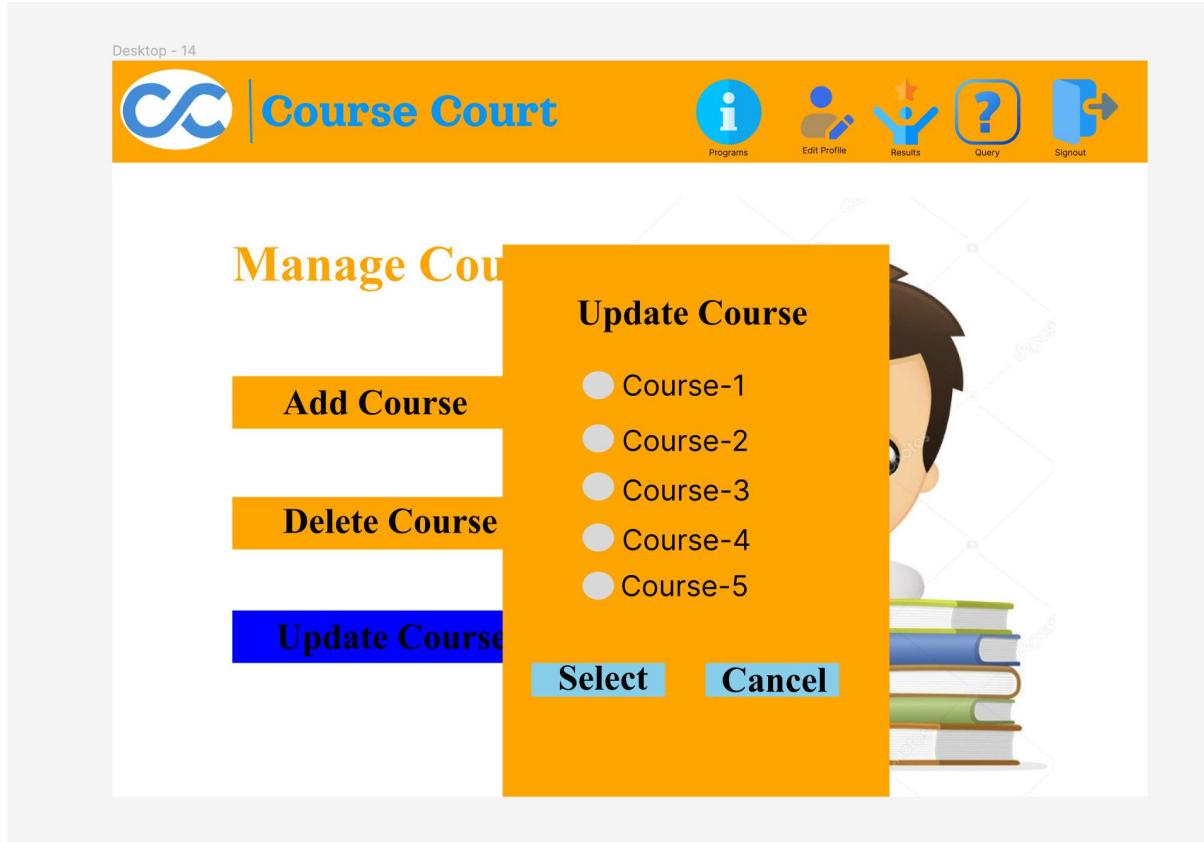
17. Manage courses -Delete course- Admin

This page allows admin to delete a course from the website.



18. Manage courses -Update course- Admin

This page allows admin to update a course content, textbooks or quiz



19. Manage users -Admin

This page allows admin to delete users from the database.



[Figma Link:](#)

<https://www.figma.com/file/JiwwgAiIrBfItouVcUjAUU/Prathyusha?type=design&node-id=0%3A1&mode=design&t=UFCoR9k3eWmO6oJ0-1>

Individual Contributions:

Student ID	Team member	Contribution
11648909	Prathyusha Jampala	Responsible for designing ER diagram with all required entities, attributes and relationships between entities along with helping in creating UI mock-ups.
11662604	Prathima Chowdary Sudalagunta	Responsible for designing class diagram with required classes, attributes and operations required in the system and also helped with design rationale.
11644490	Siva Manikanta Lakumarapu	Responsible for creating sequence diagrams and helped with collecting icons and pictures for UI mock-ups of our website.
11642687	Manasa Karumanchi	Responsible for creating sequence diagrams by identifying actors, lifelines, messages and design of information architecture diagram.
11646710	Priyanka Chirumamilla	Responsible for creating UI mock-ups of the website using figma.