A Project Report On

Unsung Angels - A Web Application For Specially Abled Children

By

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Under the guidance of

Internal Supervisor

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Department of Master Of Computer Application
Sardar Patel Institute of Technology
Autonomous Institute Affiliated to Mumbai University

2020-21

CERTIFICATE OF APPROVAL

This is to certify that the following students

Payal Save (2021510060)
Vyankatesh Wable (2021510067)

Have satisfactorily carried out work on the project entitled

"Unsung Angels- A Web Application For Specially Abled Children"

Towards the fulfilment of project, as laid down
by
Sardar Patel Institute of Technology
during year
2021-22.

Project Guide:
Prof. Pallavi Thakur

PROJECT APPROVAL CERTIFICATE

This is to certify that the following students

Payal Save (2021510060)
Vyankatesh Wable (2021510067)

Have successfully completed the Project report on

"Unsung Angels - A Web Application For Specially Abled Children",

which is found to be satisfactory and is approved

at

SARDAR PATEL INSTITUTE OF TECHNOLOGY,
ANDHERI (W), MUMBAI

INTERNAL EXAMINER EXTERNAL EXAMINER

HEAD OF DEPARTMENT PRINCIPAL

Contents

Abstract

The Unsung Angels Web Application is a web application which caters to the needs of the students with special needs by providing them a platform to apply for various scholarship schemes.

It facilitates them with different scholarships schemes specially curated for them which in turn saves them from the hassle of finding authentic sites for scholarships.

With this web app, the users can efficiently create their profiles, search for particular scholarships, view the profile details, send feedback messages, apply for a specific scholarship, etc.

Objectives

The Web based application 'Unsung Angels Web App' is

- To provide the students with special needs a user friendly platform for the scholarship process.
- To provide a convenient and easy platform for the students with sound features.
- To provide a facility to create their profiles with the required details meant for the scholarships.
- To provide a platform to make them aware of the various scholarship schemes curated for them.

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1 Introduction

1.1 Problem Definition

To provide ease and convenience to the students with special needs to apply for various scholarship schemes curated for them thereby saving them from the hassle of visiting unauthentic sites regarding scholarships.

1.2 Objectives and Scope

1.2.1 Objectives

The Web based application 'Unsung Angels Web App' is

- To provide the students with special needs a user friendly platform for the scholarship process.
- To provide a convenient and easy platform for the students with sound features.
- To provide a facility to create their profiles with the required details meant for the scholarships.
- To provide a platform to make them aware of the various scholarship schemes curated for them.

1.2.2 Scope

The students with disabilities can provide his/her details required to create student profiles on the application for further process.

Through this application , the students can view various authentic scholarships schemes and search for their desirable one.

Our system is made to reduce their hassles and aims to provide them a user - friendly environment through which they can easily go through various scholarship schemes curated for them. It also provides them with instant gratifications through emails regarding the scholarships once they successfully apply for one.

1.3 Existing System

There are various sites on the internet that aim to offer scholarships for the students . However , there exists hardly any platform for the students with special needs regarding scholarships for their betterment. Each time they want to apply for a specific scholarship especially established for them , they have to go through a great deal of sites which might in some cases could be compromising. So , our system aims to eradicate these limitations.
Some of the disadvantages of existing system are as follows :

- Time consuming
  Going through a lot of sites on the internet can consume ample amount of the time of the students.
- Redundancy
  The students might land up on some sites which may provide them redundant information.
- Unauthenticity/Originality
  As there hardly exists any platform for the such scholarships , the students might end up dealing with some unauthentic sites which can prove to be compromisng.

1.4 Proposed System

The user is the student with special needs looking for new scholarship schemes to apply through this web application. The student can thereby provide his/her details to create new user profile on the system. The system will be equipped with all the authentic scholarship schemes especially curated for them. The user can search for a specific scholarship scheme by typing the specific keywords. The user can create their profiles and then apply for a specific scholarship by viewing its details. The user can get instant gratifications through emails once they are done with successfully applying for the scholarship.

The user initially has to register on the system by providing some details such as name , email , phone number , password , etc which all are mandatory fields. Then the user can easily login with the existing email and password to enter the further process. On successful login , the user would be taken to the create and view profile page where the name of the user would be mentioned signalling his/her login.

The user can view his profile details once done with filling the form and can edit some fields if he/she wants to. He/she can also delete the created profile if need arises. The user can view other user's profiles as well.

Some of the advantages of our system are as follows :

- User Friendly
  It provides attractive user interface for the students to effeciently interact with the system by providing easy navigations , pleasing colors , etc.
- Special scholarships under one roof
  Users can view and apply for various scholarships which are specifically curated for the students with special needs thereby providing them a secured platform where they get to view all the authentic scholarship schemes under one roof.

1.5 System Requirements

- Hardware Requirements on Server Side

Table 1.5.1: Hardware Requirements on Server Side

Processor	Dual Core Processor or Above
RAM	Minimum 4 GB RAM
Storage	Minimum 10 GB Hard Disk Space for smooth run

- Hardware Requirements on Client Side

Table 1.5.2: Hardware Requirements on Client Side

Device	Android Device with Touch Screen minimum 5” inch Display / Computer system / Laptop
Processor	Dual Core Processor or Above
RAM	Minimum 2 GB RAM
Storage	Minimum 250 MB Storage Space

- Software Requirements on Server Side

Table 1.5.3: Software Requirements on Server Side

Operating System	OS Independent
Database	Firestore

- Software Requirements on Client Side

Table 1.5.3: Software Requirements on Client Side

Operating System	Android/IOS Smartphone / Computer system / Laptop
Server	Not Required

2 Software Requirement Specification (SRS) and Design

2.1 Purpose

The purpose of our project is to develop a web application that can help the students with special needs to apply for various scholarship schemes specifically curated for them by providing them a sound platform for scholarships.
This can save them from the hassle of visiting a great deal of sites over the internet which might not provide them with authentic information. The project serves the purpose of providing all the scholarships under one roof which can prove to be highly beneficial for them. The project also aims to provide user-friendliness , ease and convenience to the user.

2.2 Definition

To build an application for the students with special needs to apply for scholarships specifically curated for them.

2.3 Overall Description

2.3.1 Product Functions

The product function includes:

1. Authentication: Users are required to register and login using their credentials. Failing to provide proper credentials during login will not let the user avail the further process.
2. Profile: The users can create their student profile by entering the required details asked in the form.
3. Apply: The users can apply for scholarships after creating the profile.
4. View Scholarships : The user can view different scholarships which the users can apply for.
5. Search Scholarships : The user can search for a particular scholarship by entering the familiar
6. Fill Details : Once the scholarship is chosen , the user is required to fill a small form for getting gratification through his/her email.
7. Send feedback message : The user can provide his/her valuable feedback messages.

2.3.2 User Characteristics

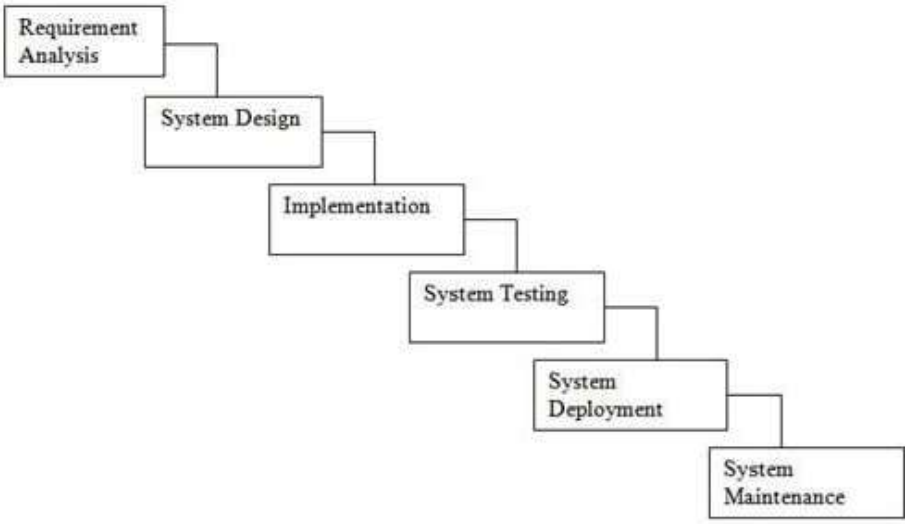
- Students with disabilities : The users of the platform are the students with disabilities who can easily apply for scholarships through this platform.
- Parents of students with disabilities : The users of the platform can be the parents of the students with disabilities who can apply for such scholarships on their behalf.
- Special school admins : The users of the platform can also be the admins of special schools who can apply for such scholarships on their behalf.

3 Project Analysis and Design

3.1 Methodologies Adapted

In Waterfall model, very less customer interaction is involved during the development of the product. Once the product is ready then only it can be demonstrated to the end users.

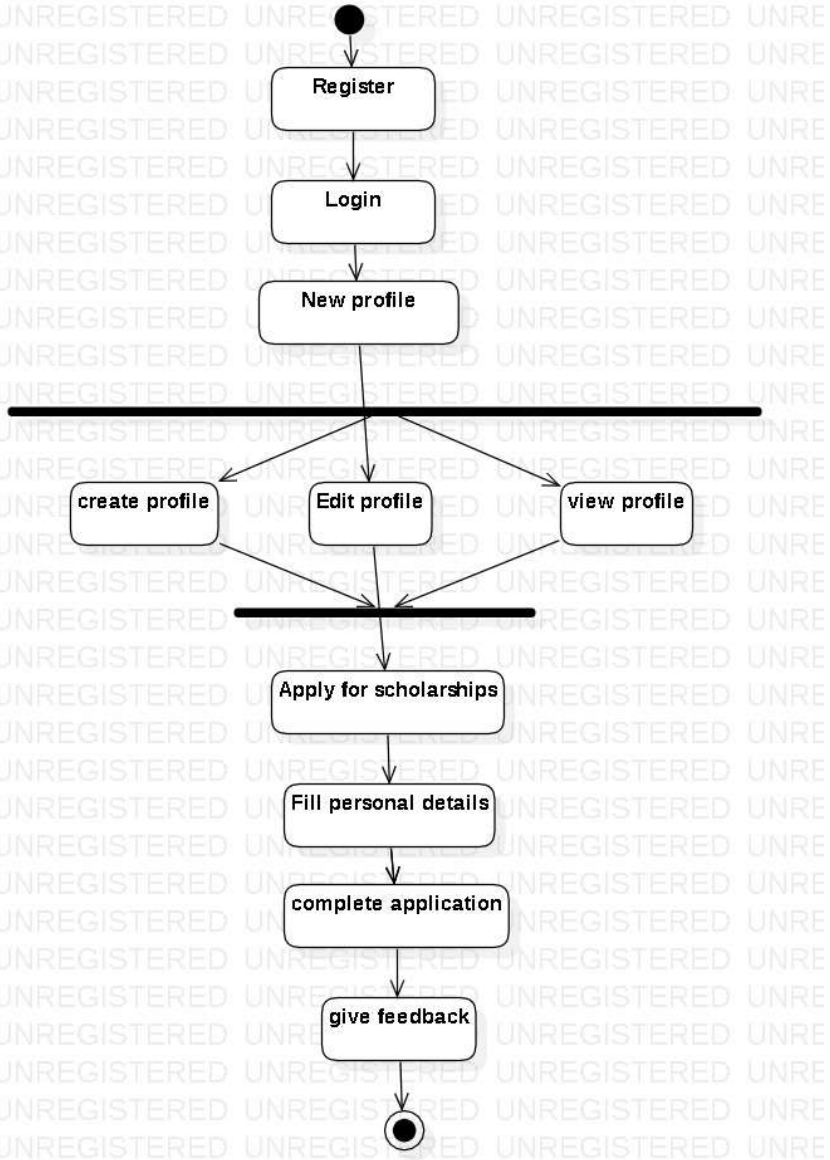
Once the product is developed and if any failure occurs then the cost of such issues is very high, because we need to update everything from document till the logic.



3.1.1: Diagrammatic Representation of Waterfall Model

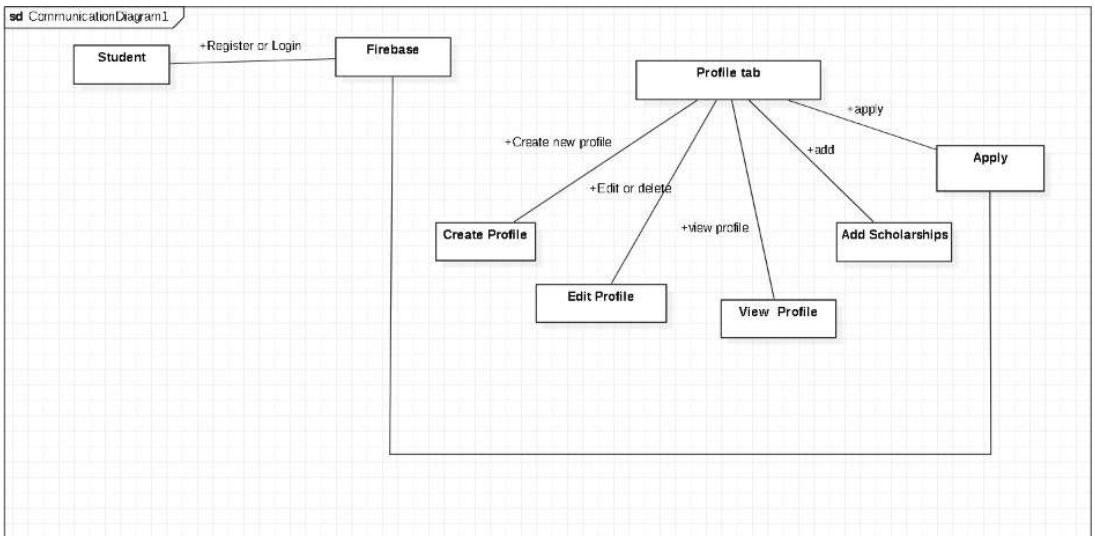
3.2 Modules

3.2.1 Activity diagram



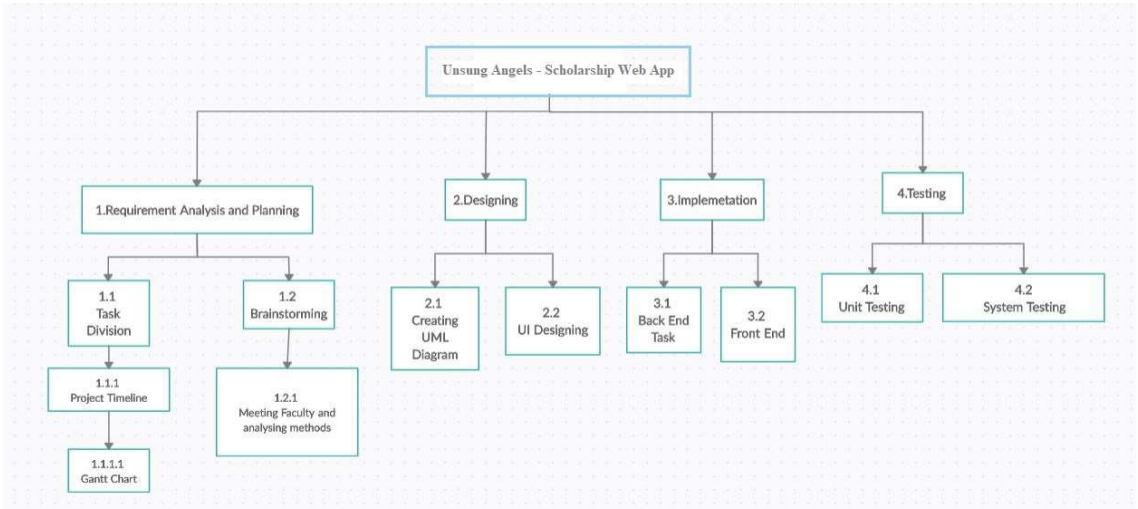
3.2.1: Activity Diagram

3.2.2 Communication Diagram



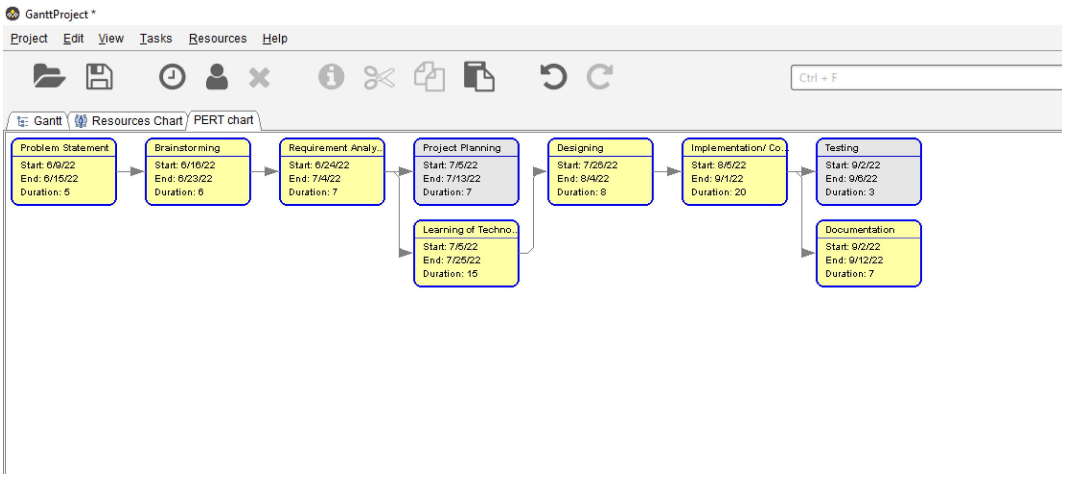
3.2.2: Communication Diagram

3.2.3 Work Breakdown Structure



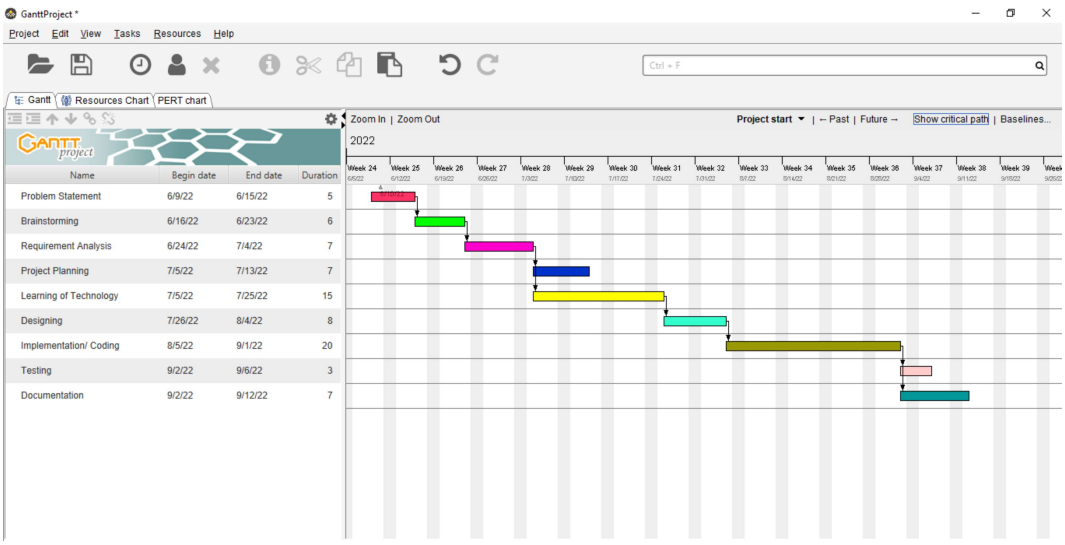
3.2.3: Work Breakdown Structure

3.2.4 PERT Chart



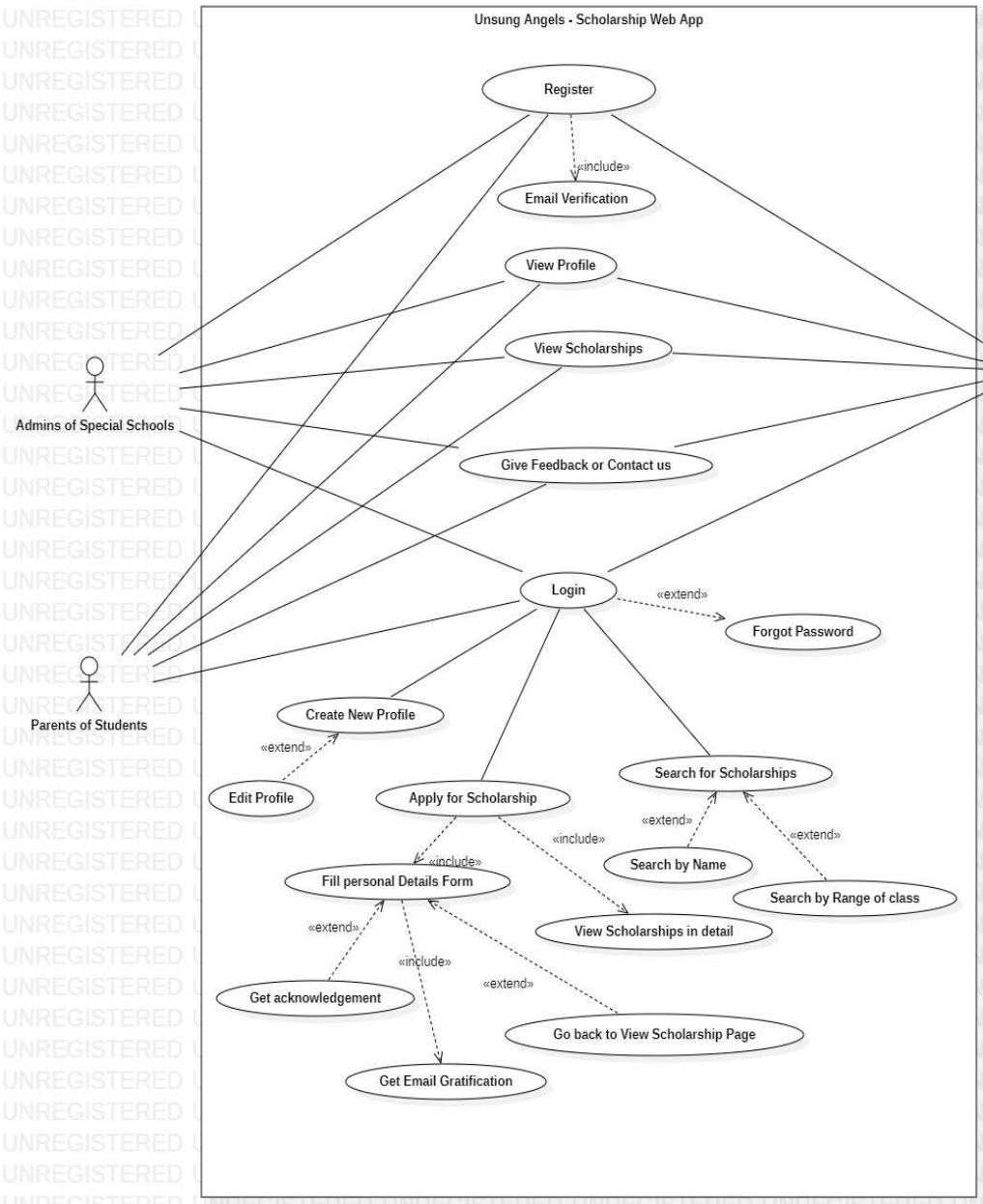
3.2.4: PERT Chart

3.2.5 Gantt Chart



3.2.5: Gantt Chart

3.2.6 Use-Case



3.2.6: Use-Case Diagram

Use Cases:

1. Register
2. Login
3. Create New Profile
4. Edit Profile
5. View Profile
6. Apply for Scholarship
7. View Scholarships
8. Search for Scholarships
9. Fill Personal Details Form
10. Get Acknowledgement
11. Get Email gratification
12. Give Feedback

Table 4.2.1: Use Case Table - Register

Use Case ID	1
Use Case Name	Register
Actor	Admin, Students and Parents
Pre-Condition	They must register themselves first
Post-Condition	User can login
Flow of events	Login,Register or Edit Profile and View Scholarships and Apply for the same

Table 4.2.2: Use Case Table - Login

Use Case ID	2
Use Case Name	Login
Actor	Admin, Students and Parents
Pre-Condition	They must register themselves first
Post-Condition	User can view its profile and Scholarships detail and can apply for Scholarships
Flow of events	Login,Register or Edit profile, Apply for Scholarships and view profile and scholarships

Table 4.2.3: Use Case Table - Create New Profile

Use Case ID	3
Use Case Name	Create New Profile
Actor	Admin, Students and Parents
Pre-Condition	They must register and login themselves.
Post-Condition	Users can create new profile with required details and can view his/her profile there.
Flow of events	Register , login, create new profile or edit profile, view scholarships, apply for the same.

Table 4.2.4: Use Case Table - Edit Profile

Use Case ID	4
Use Case Name	Edit Profile
Actor	Admin, Students and Parents
Pre-Condition	They must register and login themselves. They must create a new profile as well.
Post-Condition	Users can edit their existing profile if they want to make some changes.
Flow of events	Register , login , create new profile or edit profile

Table 4.2.5: Use Case Table - View Profile

Use Case ID	5
Use Case Name	View Profile
Actor	Admin, Students and Parents
Pre-Condition	They must register and login themselves. They must create or edit their profile.
Post-Condition	Users can view their created or edited profile there.
Flow of events	Register, login, create new profile or edit profile, view profile

Table 4.2.6: Use Case Table - Apply For Scholarships

Use Case ID	6
Use Case Name	Apply For Scholarships
Actor	Admin, Students and Parents
Pre-Condition	They must register and login themselves. They must create or edit their profile. They can view their profile.
Post-Condition	Users can apply for scholarships by clicking on the button on the profiles created.
Flow of events	Register, login, create new profile or edit profile, view profile,apply

Table 4.2.7: Use Case Table - View scholarships

Use Case ID	7
Use Case Name	View scholarships
Actor	Admin, Students and Parents
Pre-Condition	They need to click on the view scholarships tab
Post-Condition	Users can view different scholarship schemes curated for them
Flow of events	Open the web application and click on the view scholarships tab

Table 4.2.8: Use Case Table - Search for scholarships

Use Case ID	8
Use Case Name	Search for scholarships
Actor	Admin, Students and Parents
Pre-Condition	They need to visit the web application and click on view scholarships tab
Post-Condition	Users can search for a particular scholarship by entering a specific keyword in the search bar.
Flow of events	Open the web application and click on the view scholarships tab , search for scholarship

Table 4.2.9: Use Case Table - Fill personal details form

Use Case ID	9
Use Case Name	Fill personal details form
Actor	Admin, Students and Parents
Pre-Condition	Register, login themselves. They must create new profile or edit profile, view profile, apply for scholarships
Post-Condition	Users can fill out the personal details for completion of the application.
Flow of events	Register, login, create new profile or edit profile, view profile, apply for scholarships,fill personal details

Table 4.2.10: Use Case Table - Get Acknowledgement

Use Case ID	10
Use Case Name	Get Acknowledgement
Actor	Admin, Students and Parents
Pre-Condition	Register, login themselves.They must create new profile or edit profile, view profile, apply for scholarships, fill personal details, click on submit.
Post-Condition	Users can view the acknowledgement page once they have successfully completed the application.
Flow of events	Register, login, create new profile or edit profile, view profile, apply for scholarships, fill personal details, click on submit

Table 4.2.11: Use Case Table - Get email gratification

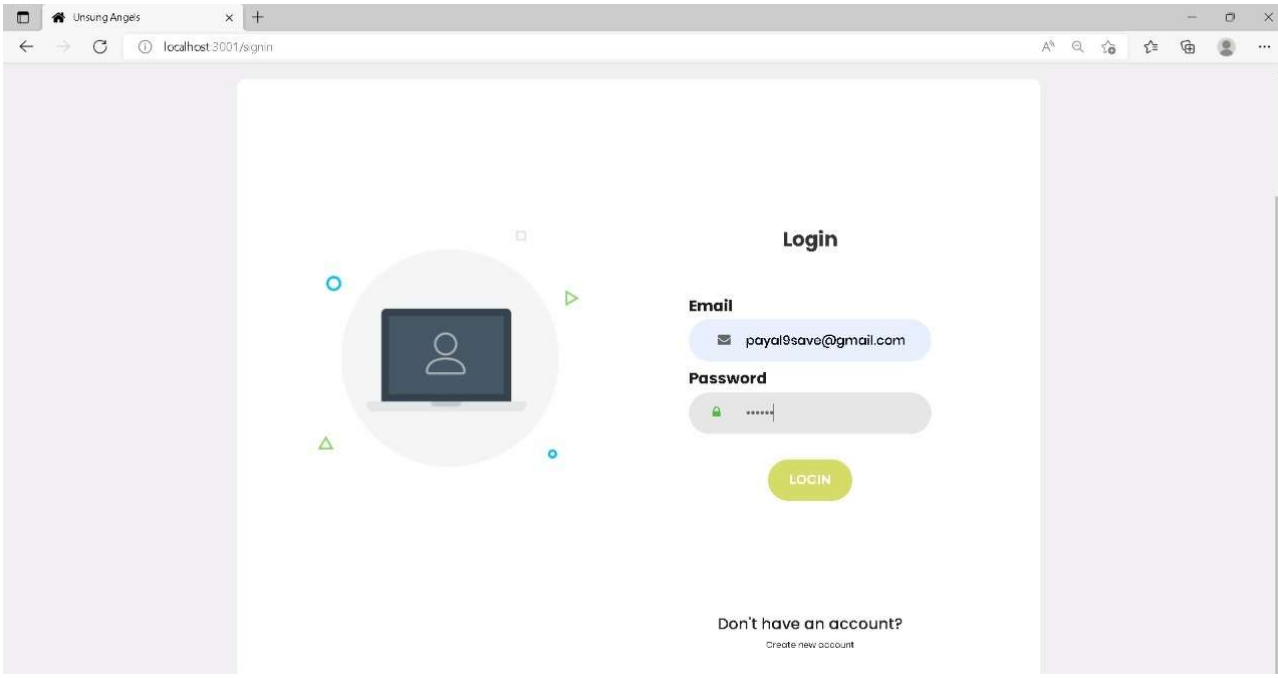
Use Case ID	11
Use Case Name	Get email gratification
Actor	Admin, Students and Parents
Pre-Condition	They must register and login themselves. They must create new profile or edit profile , view profile, apply for scholarships, fill personal details, click on submit
Post-Condition	Users can receive instant email gratification on the email id specified by them regarding their information which they have filled on the web application.
Flow of events	Register , login, create new profile or edit profile, view profile, apply for scholarships, fill personal details, click on submit

Table 4.2.12: Use Case Table - Give feedback

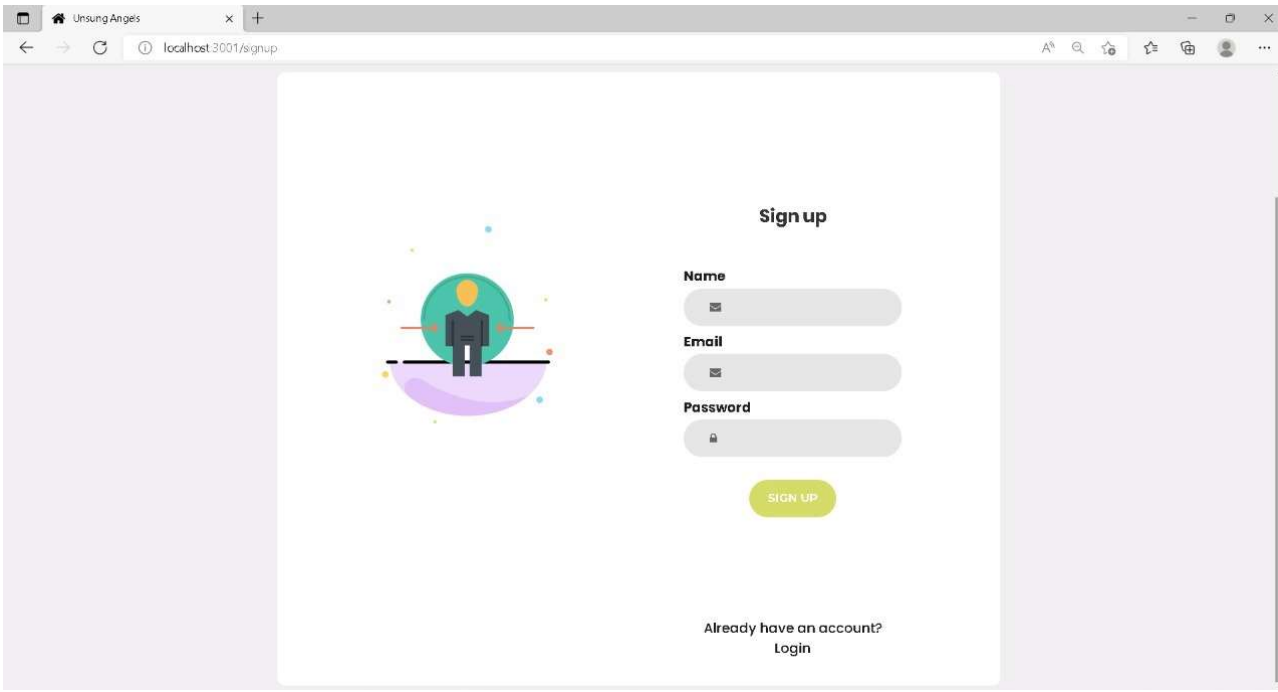
Use Case ID	12
Use Case Name	Give feedback
Actor	Admin, Students and Parents
Pre-Condition	They must visit the web application and click on contact us tab
Post-Condition	Users can give their feedback or send messages regarding scholarships.
Flow of events	Open the web application , click on contact us tab , fill the feedback form , click on submit

4 Project Implementation and Testing

4.1 Login and Register

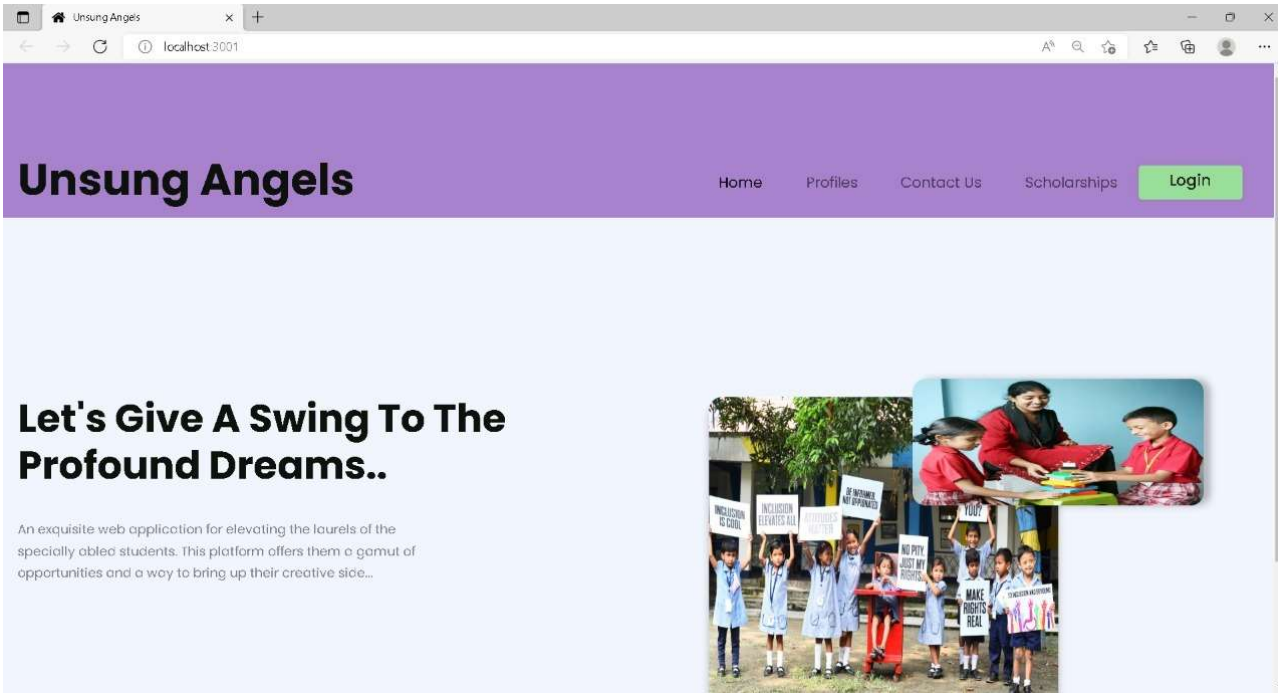


4.1.1: Login



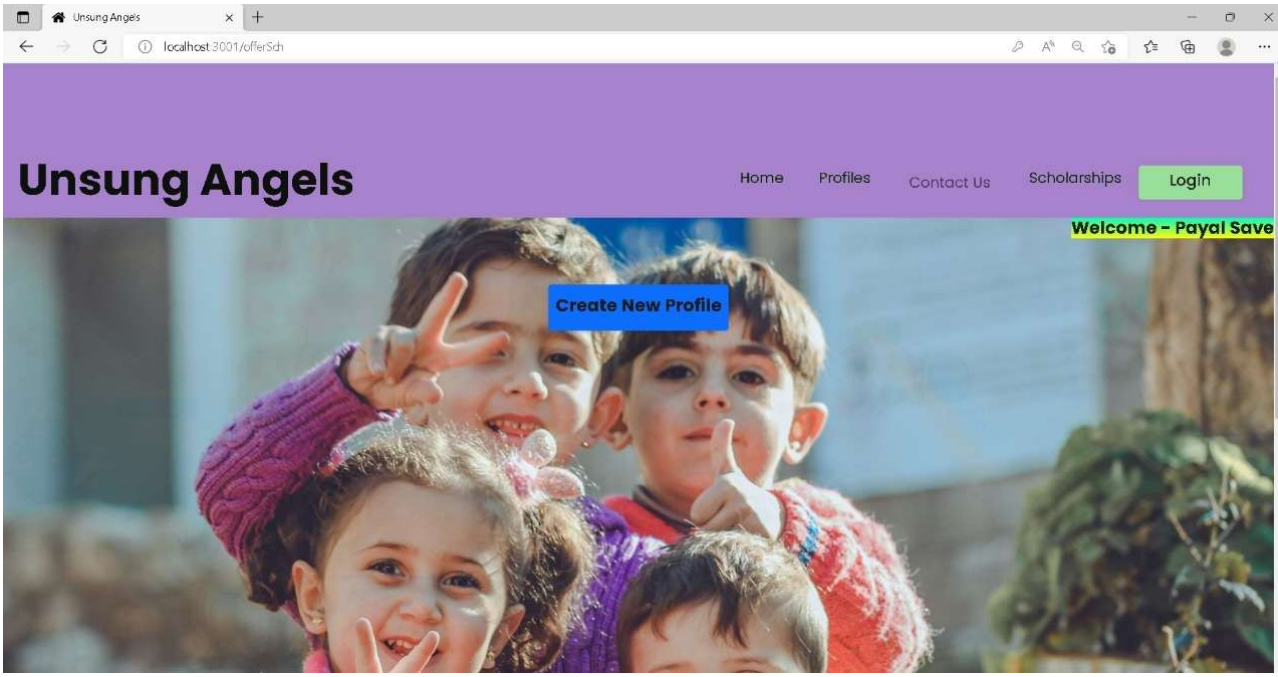
4.1.2: Register

4.2 Home - Landing View



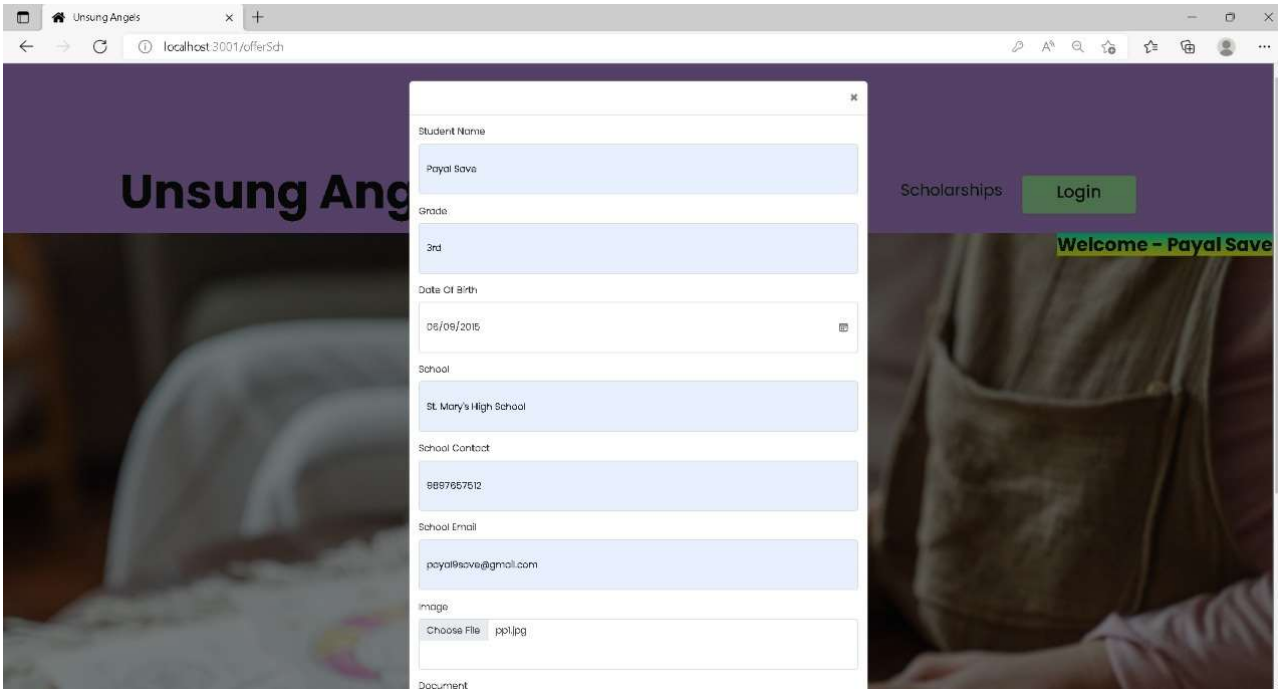
4.2.1: Home View

4.3 Create New Profile



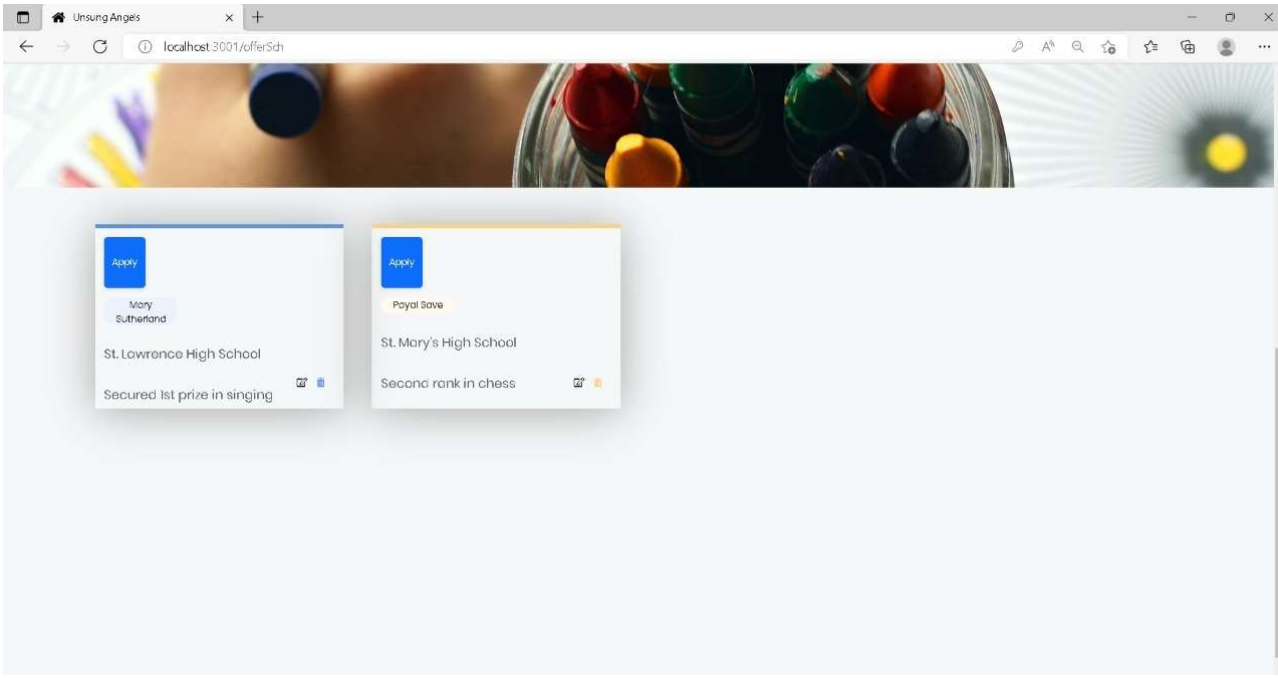
4.3.1: Create New Profile

4.4 Fill Profile details



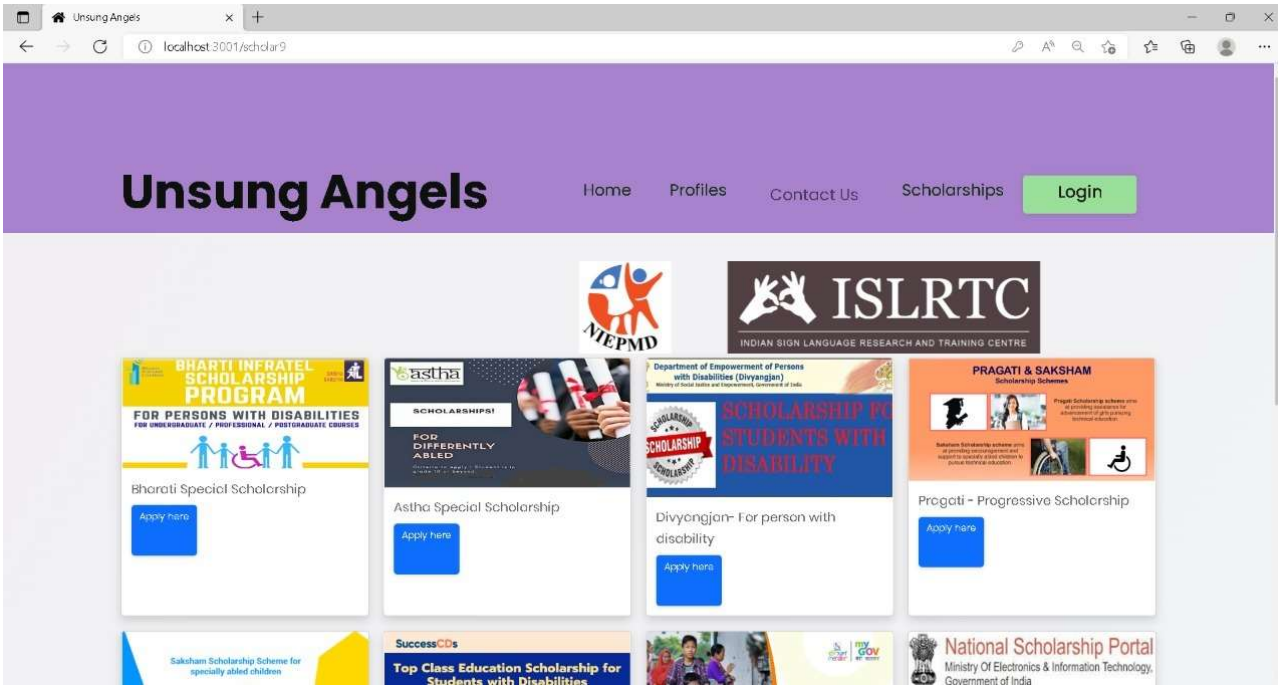
4.4.1: Profile Form

4.5 View Profile



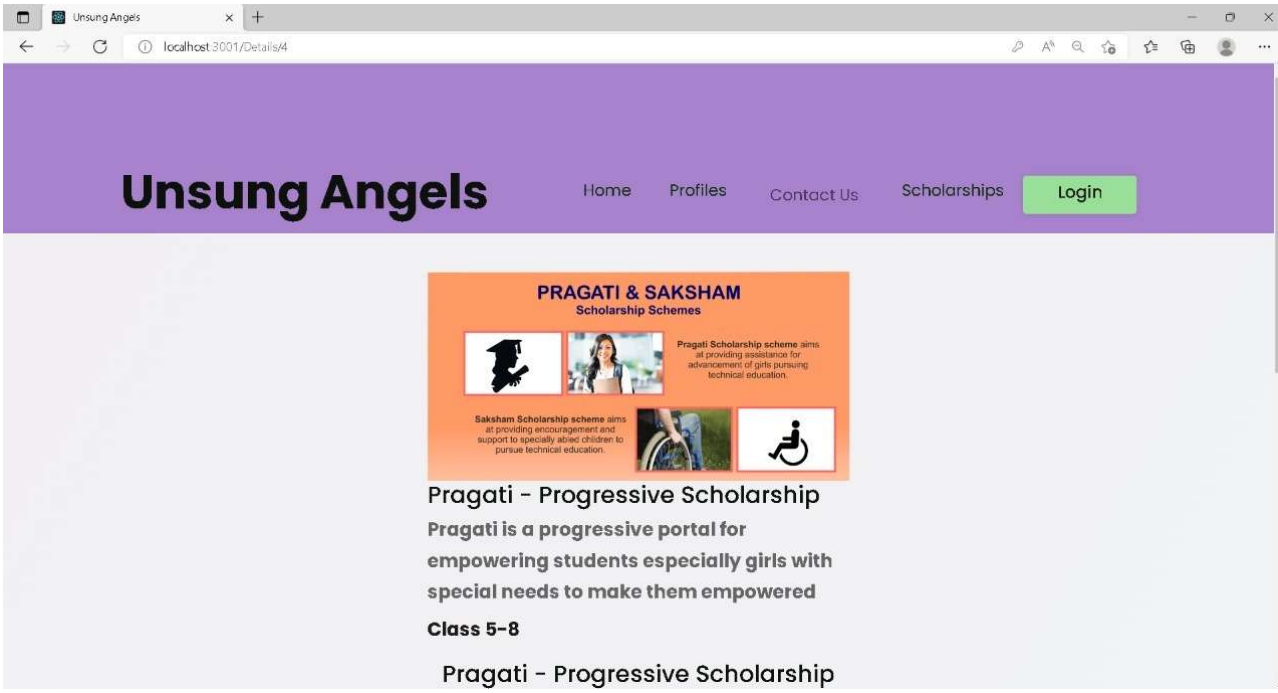
4.5.1: Profile View

4.6 Apply for Scholarships



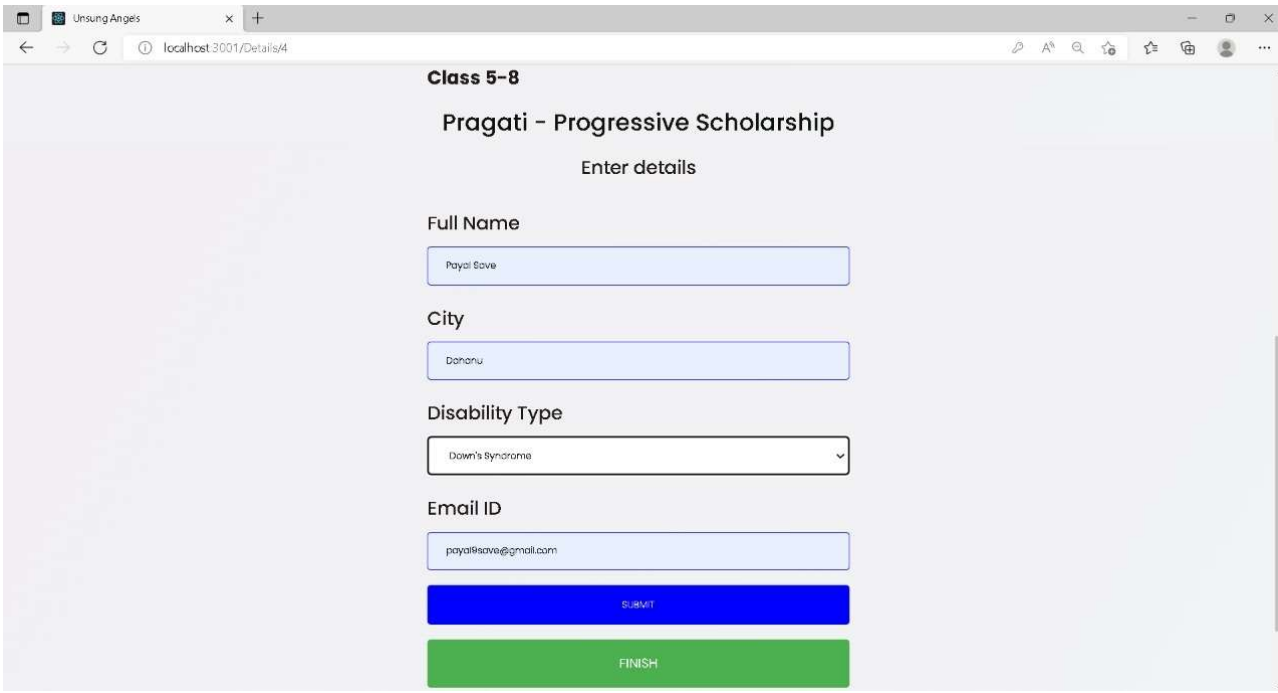
4.6.1: Apply for Scholarships Page

4.7 Scholarship Details



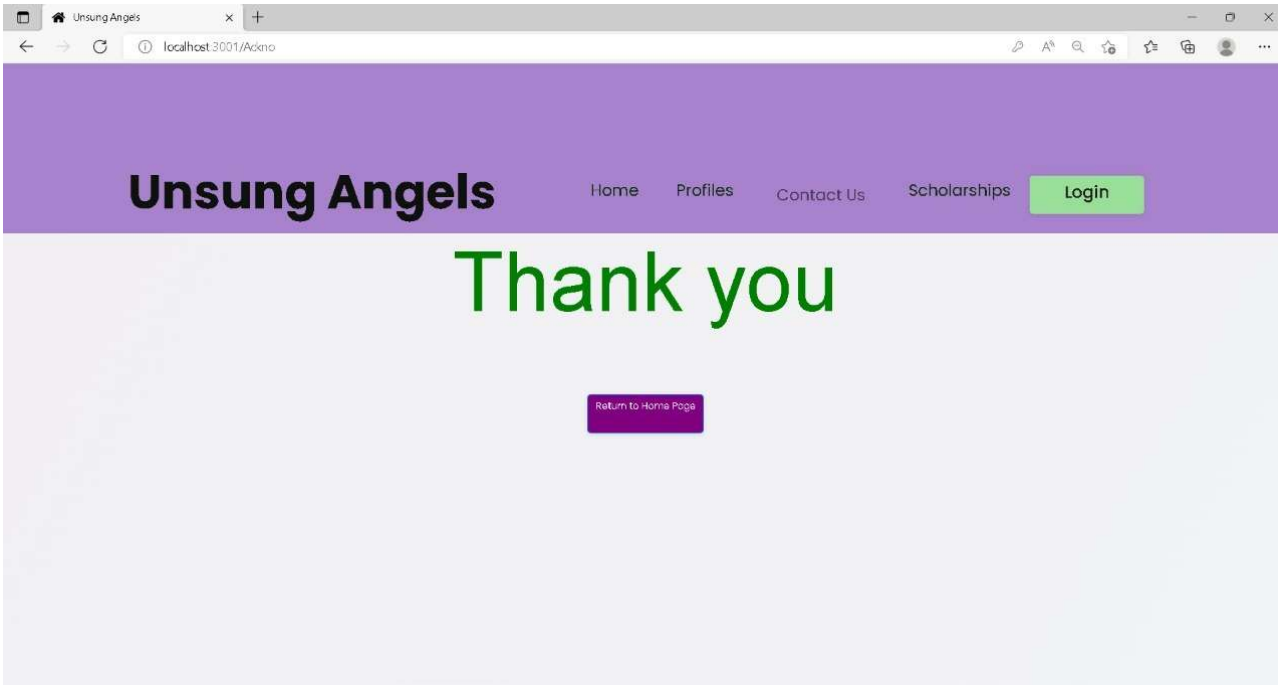
4.7.1: Scholarship Details View

4.8 Personal Details Form to Apply for Scholarship



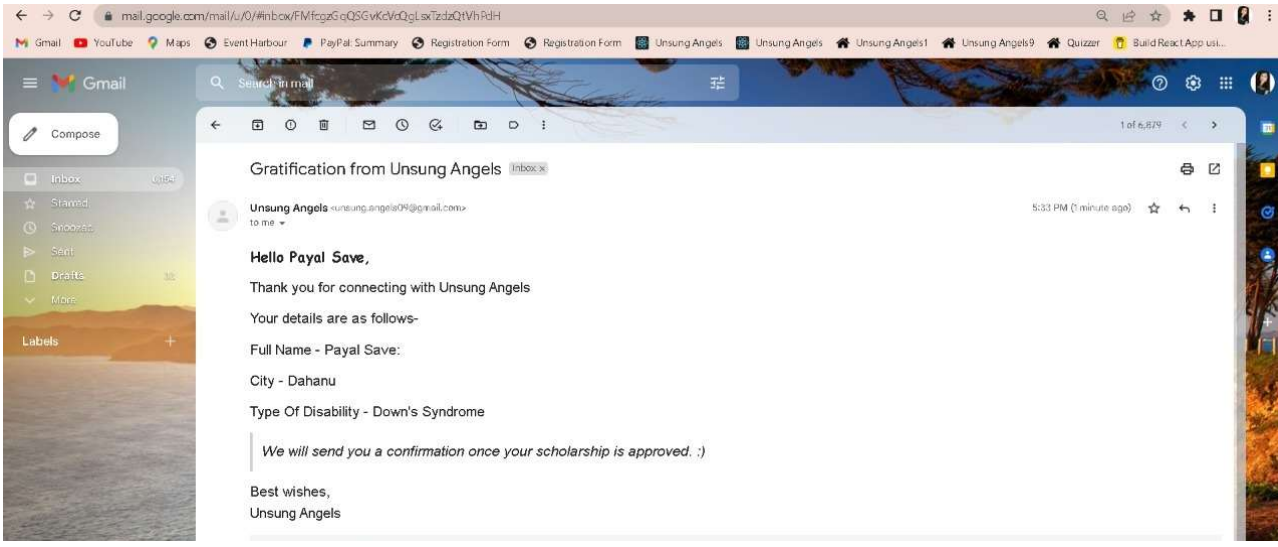
4.8.1: Personal Details Form to Avail Scholarship

4.9 Acknowledgement Page



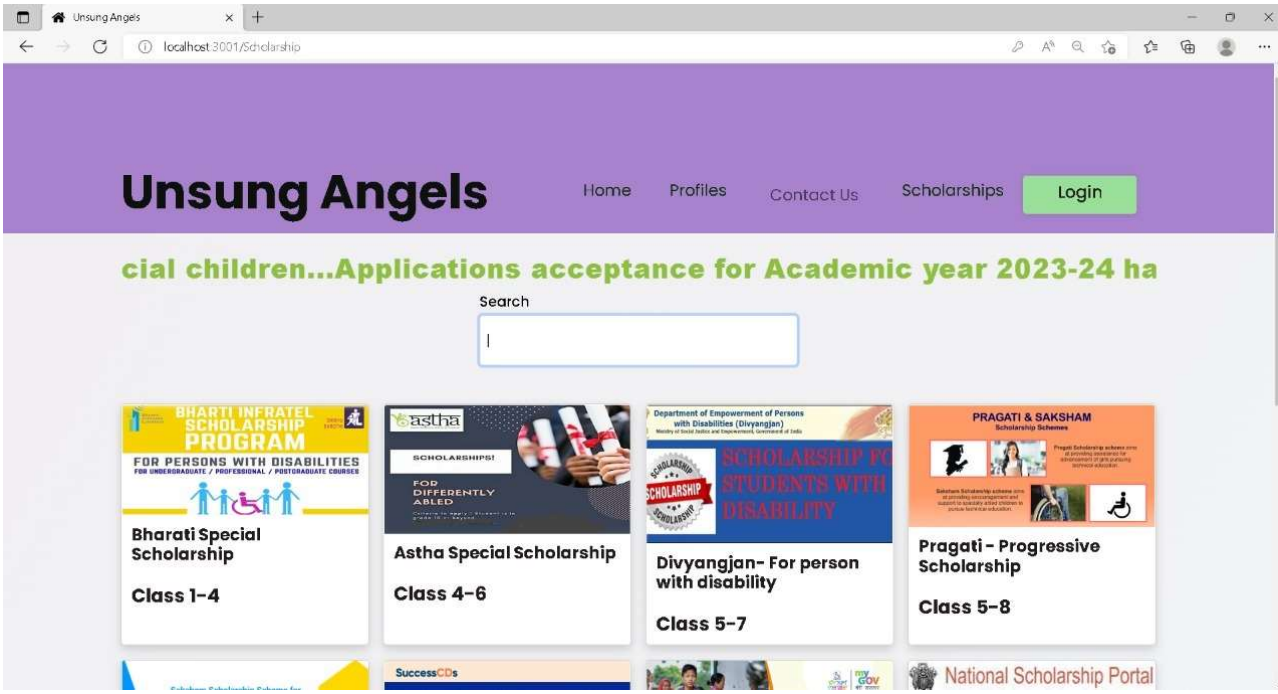
4.9.1: Acknowledgement Page

4.10 Email gratification



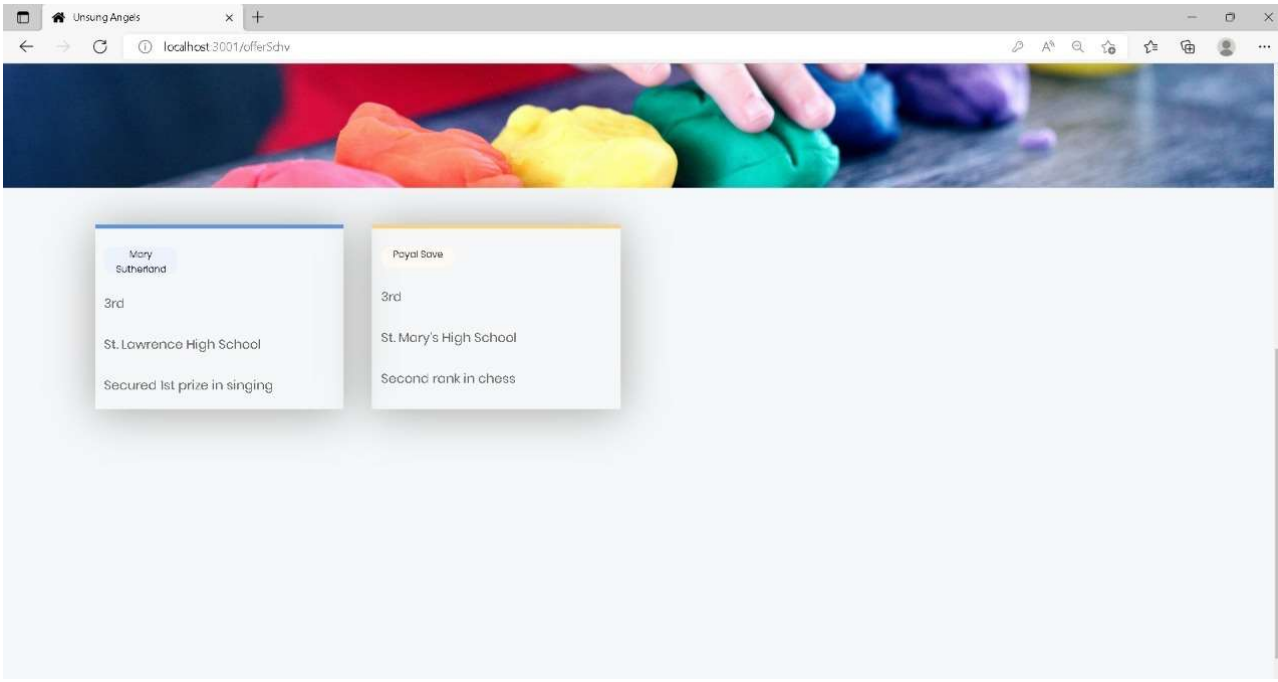
4.10.1: Email gratification Page

4.11 Search For Scholarships



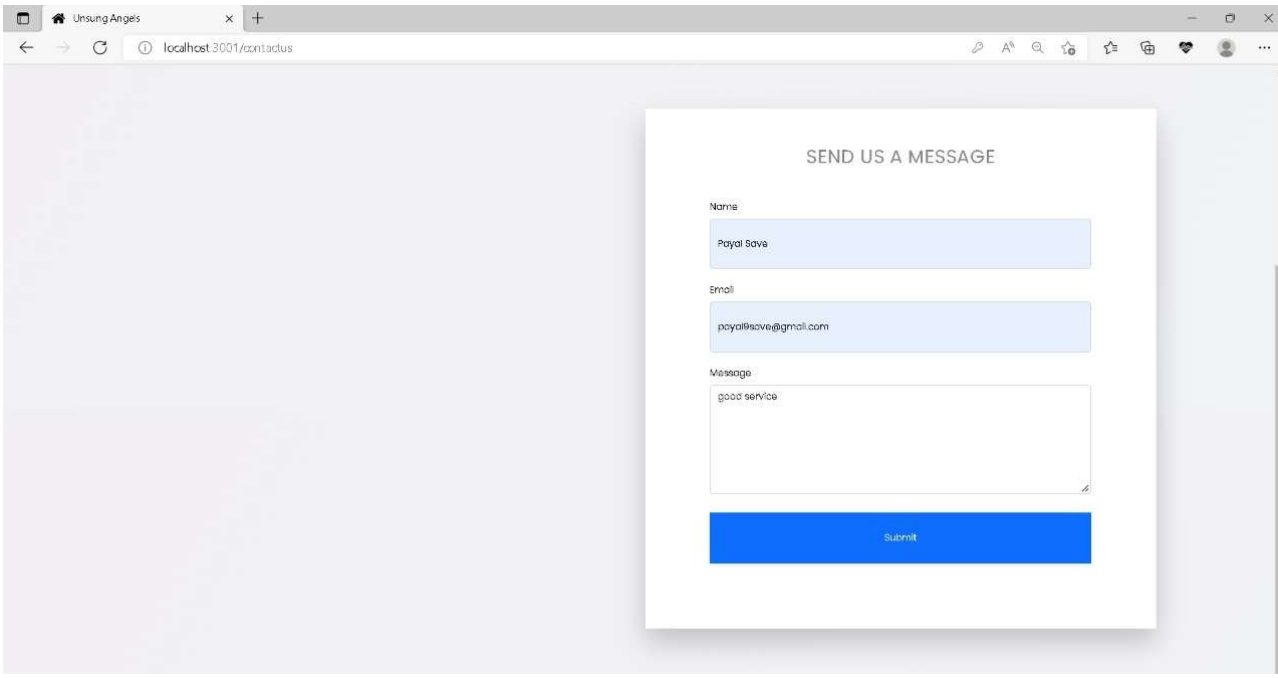
4.11.1: Search For Various Scholarships Using Search Bar

4.12 View Profiles



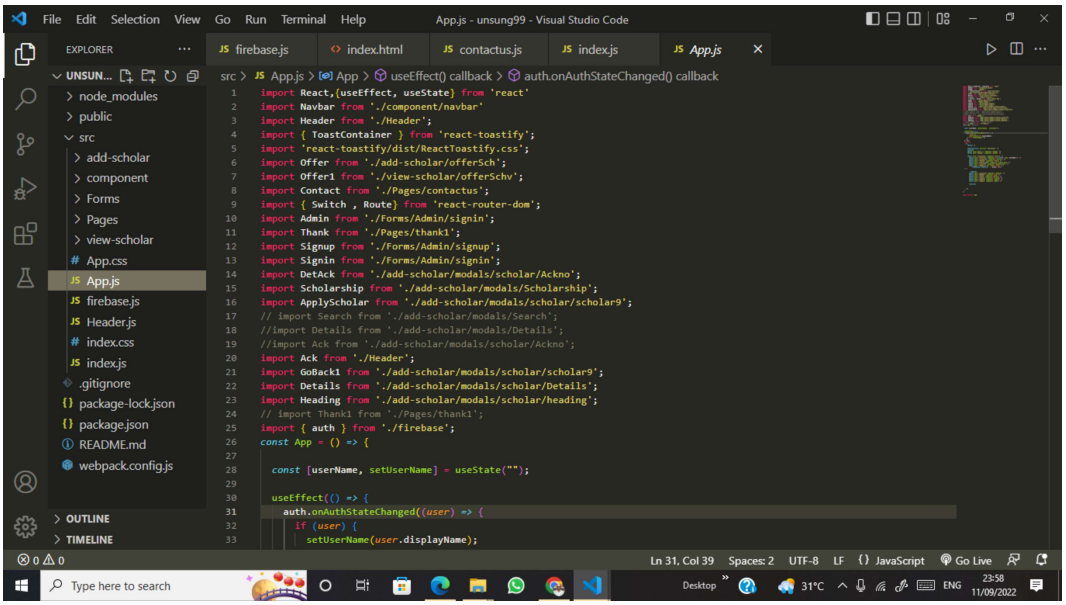
4.12.1: View Profile Page

4.13 Feedback form

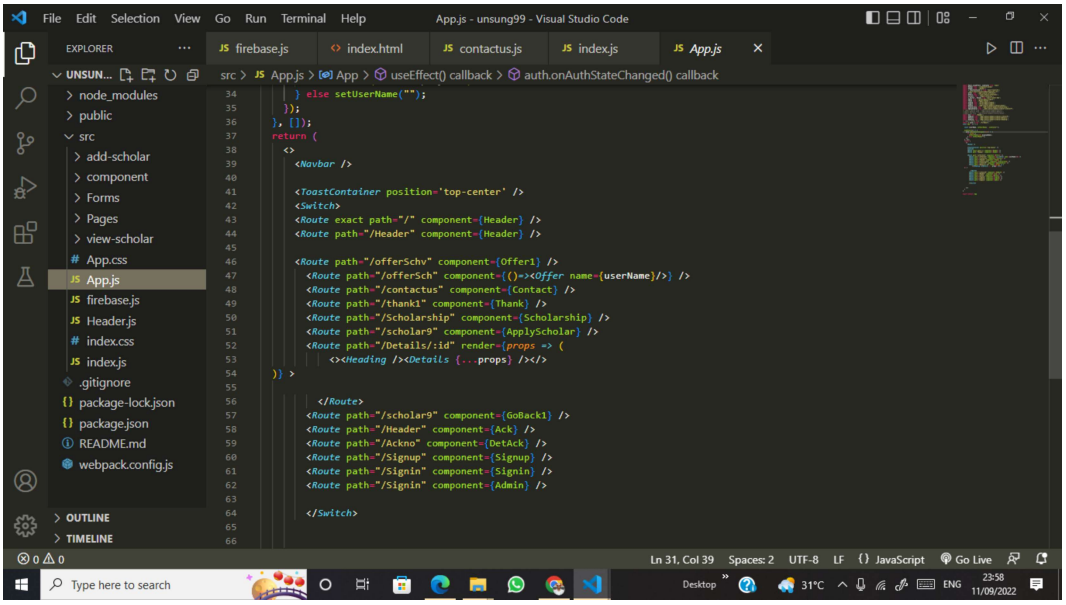


4.13.1: Feedback Page to get in touch with us

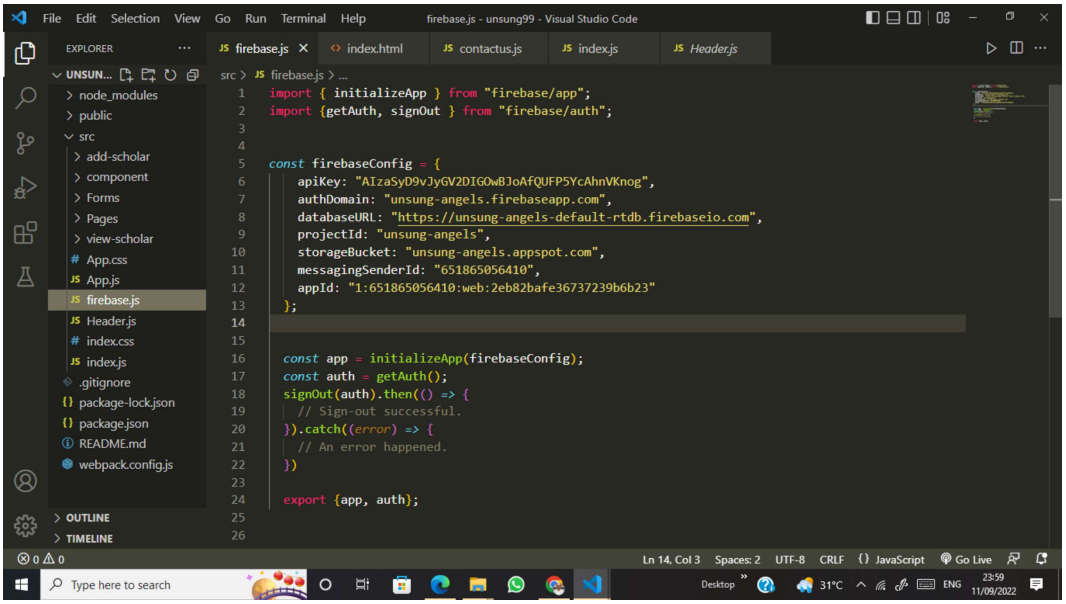
4.14 App.js



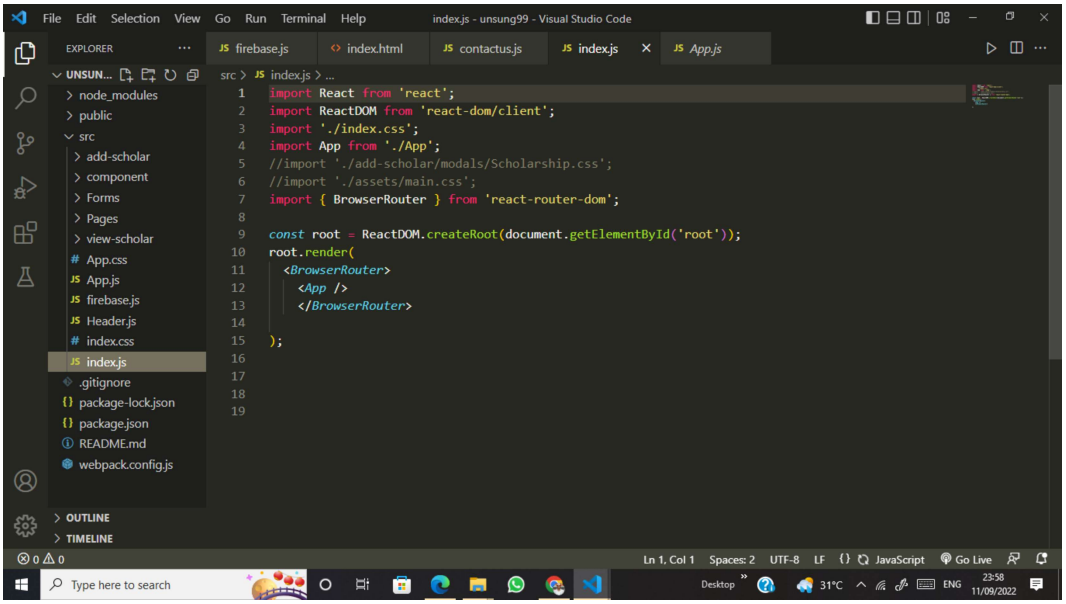
4.15 App.js



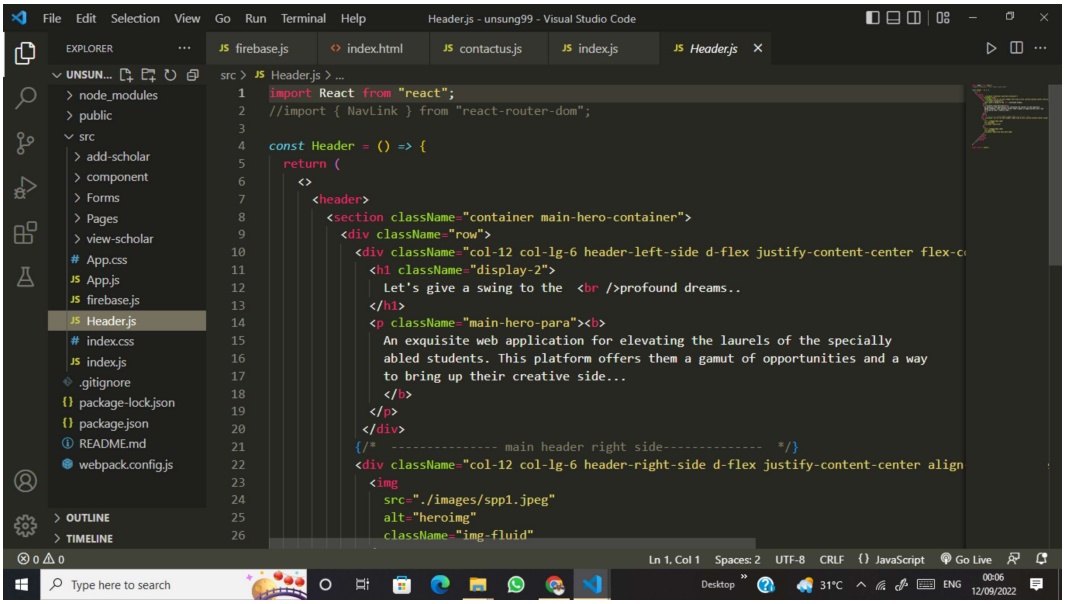
4.16 Firebase



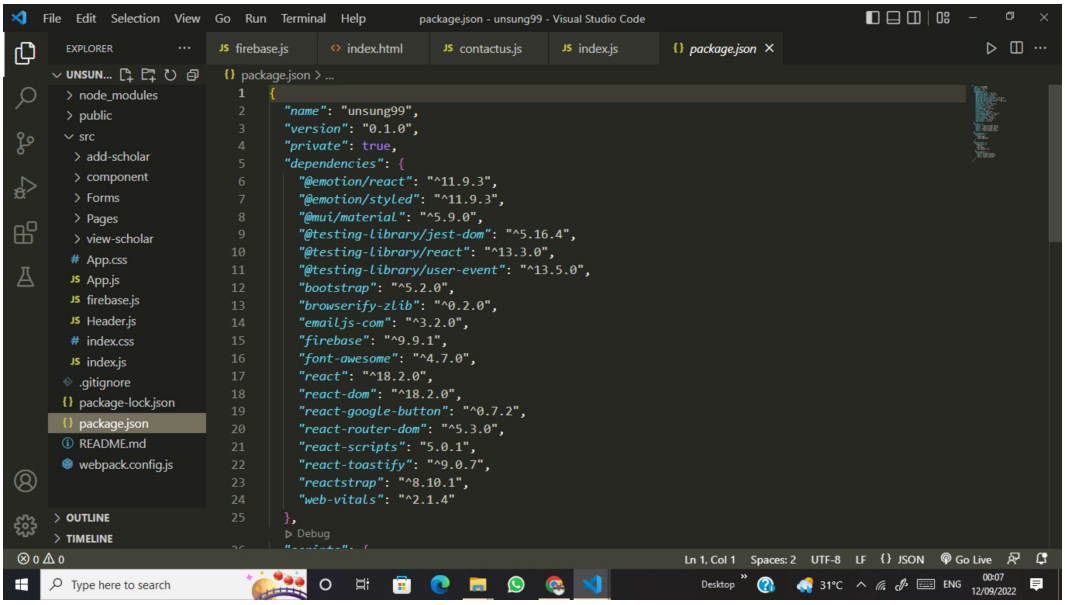
4.17 Index.js



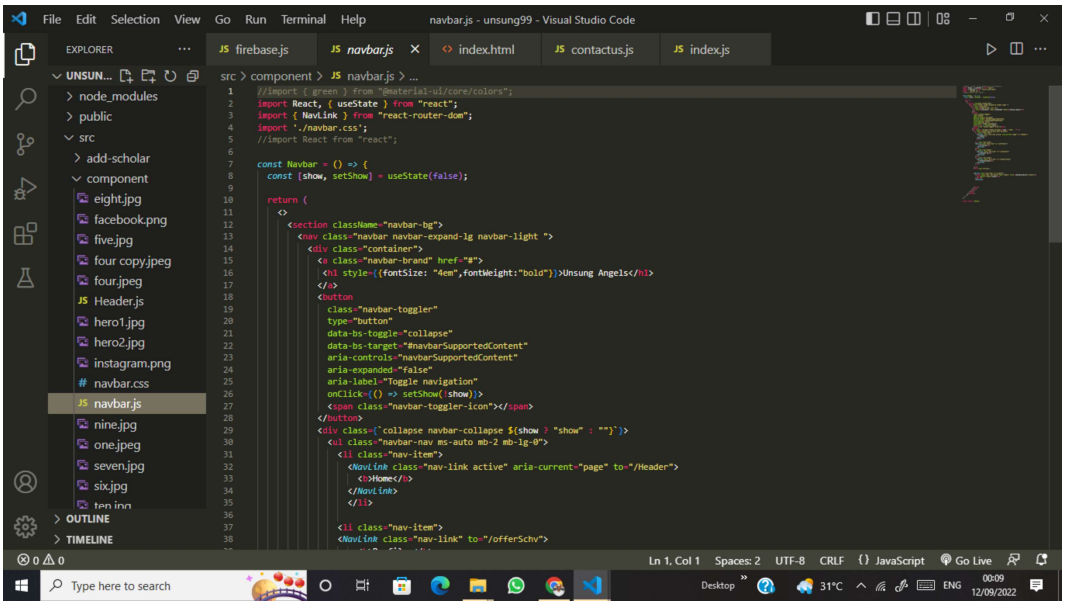
4.18 Header



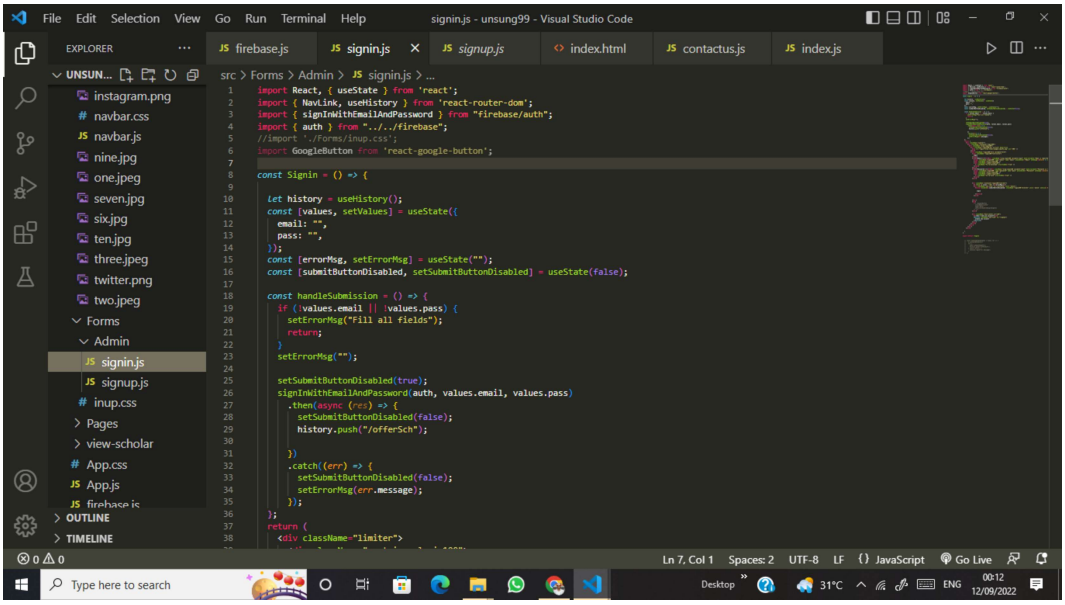
4.19 Packages Installed



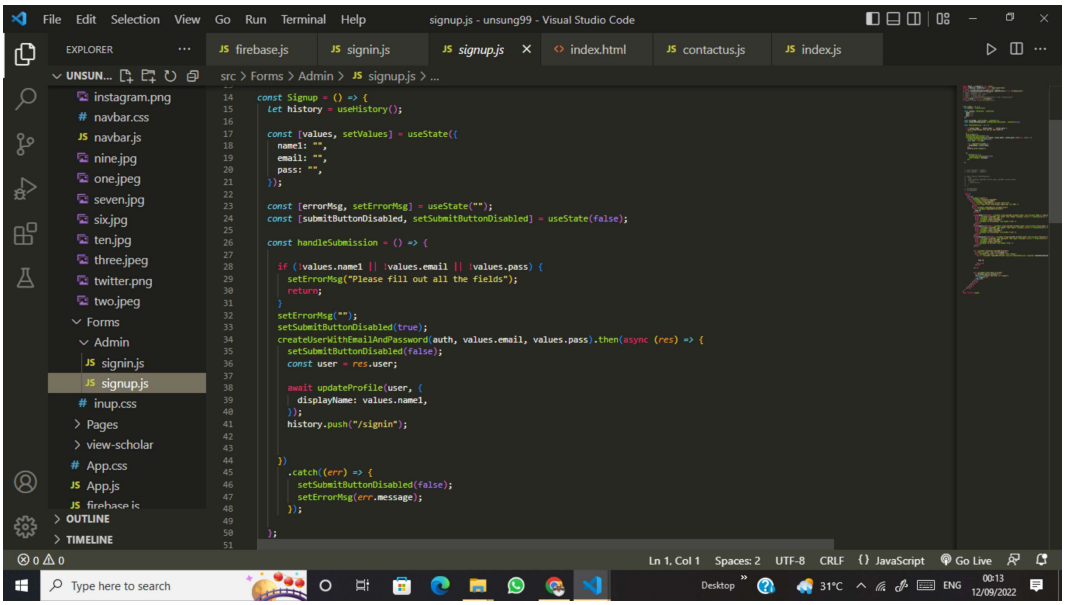
4.20 Navigation Bar



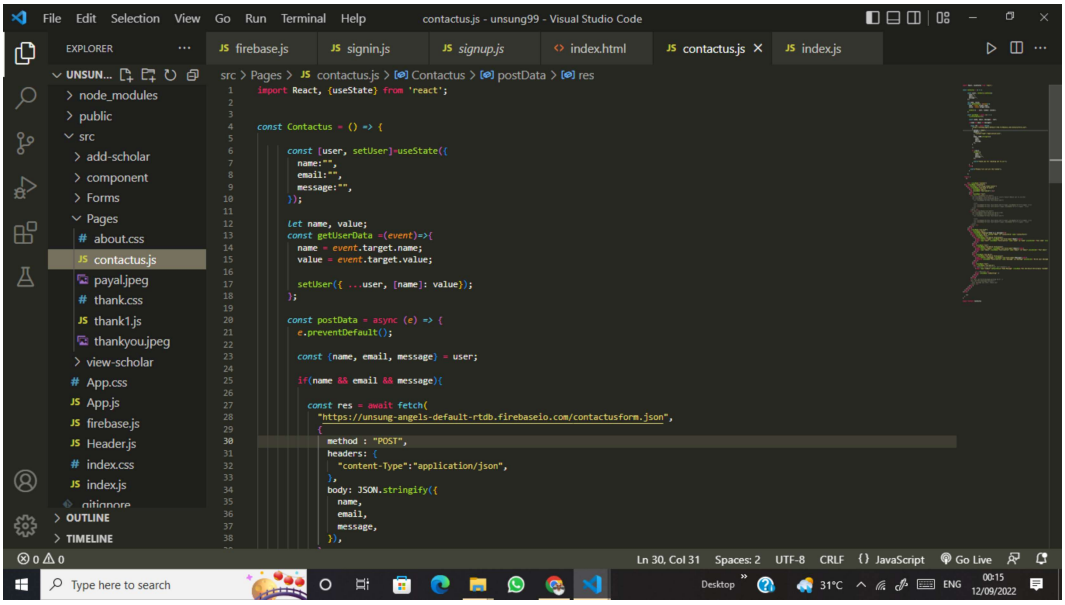
4.21 SignIn Page



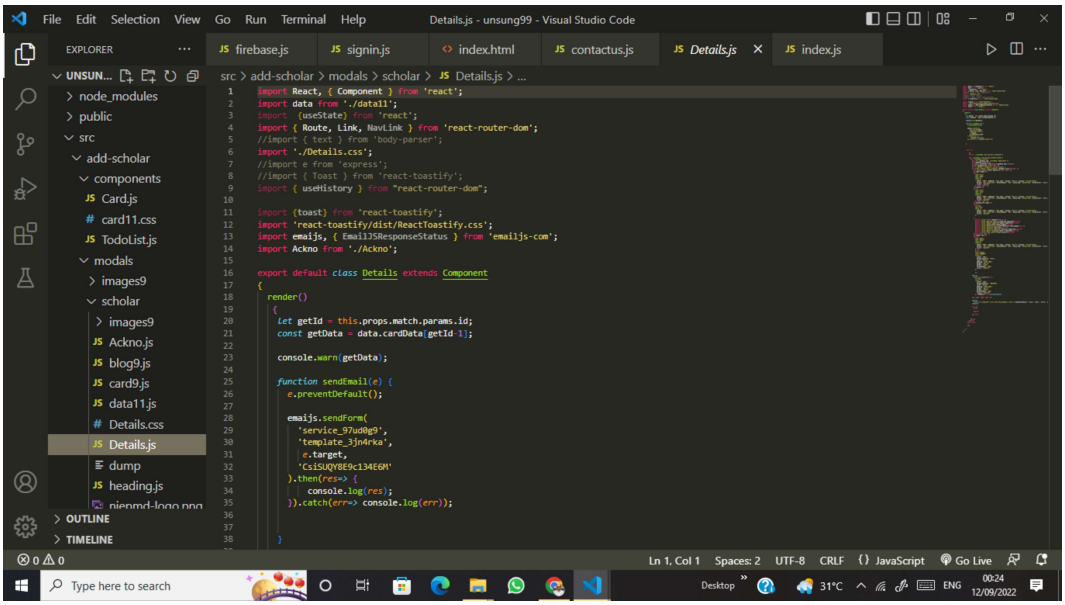
4.22 Sign Up Page



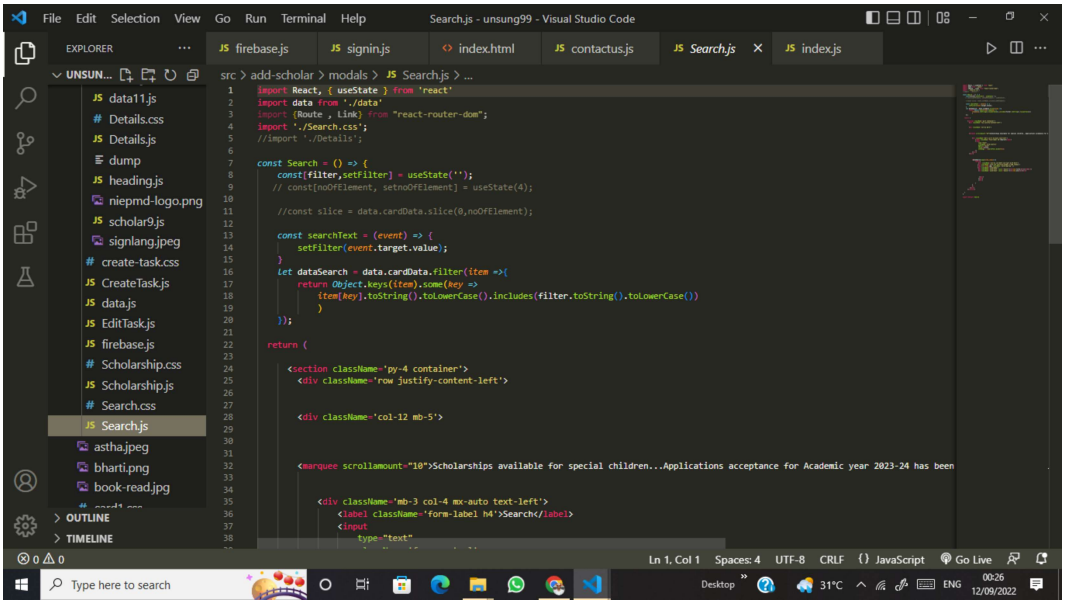
4.23 Contact Us Page



4.24 Scholarships Details



4.25 Search for Scholarships



5 Test Cases

Table 5.1: Test Case - Login and Register

Test Case ID	Test Case Name	Test Data	Expected Output	Actual Output	Result
1	User enter user id and password	Enters the correct user id and password	Log in Successful	Home Page	Pass
2	User enter user id and password	Enters the user id and password	Prompt error	Prompt error	Pass
3	User enter user id and password	Valid user id and password which doesn't exist in Database	Registered Successfully	Login Page	Pass
4	User enter user id and password	Invalid user id and password which contains in Database	Prompt error	Prompt error	Pass

Table 5.2: Test Case - Others

Test Case ID	Test Case Name	Test Data	Expected Output	Actual Output	Result
1	User does not enter the required credentials in the Contact Us form	All fields are mandatory	Error message showing all fields required	Message Indicating Success	Fail
2	User enters all the required fields in the Contact Us form	All fields are mandatory	Successful completion of Contact Us form	Message Indicating Success	Pass

6 Limitations

- It needs internet to be accessed.
- It does not have a direct link to the scholarship sites.
- User cannot edit all the details filled in the profile form.
- It does not have a feature to apply for actual scholarships present.
- PDF's cannot be created regarding the details of the systems.

7 Future Enhancements

- Automatic PDF generation of the details of the users.
- Feature of applying for scholarships directly from the system.
- Users can get notifications regarding the status of their application whether approved or rejected.

8 User Manual

Part 1 – Register
Upon visiting the platform , the first thing the user needs to do is register on the web application by providing his/her credentials.The user can now proceed to login.

Part 2 – Login
Once registered successfully , the user can login to the system by his/her email id and password which should be correct .Failing to which would not let you to proceed further.

Part 3 – Create Profile
Once the user has successfully signed in to the system , the user can now create his/her profile by filling in the required details.

Part 4 – Apply for Scholarships
After filling the details for profile creation , the user can now apply for scholarships and see which all options are available for him/her.

Part 5 – Filling the details form
After selecting a particular scholarship , the user can click on it to view it in detail and can now fill the details which will provide them with a gratification email instantly.

Part 6 – Filling the contact form
The users can provide their valuable feedback through this feature.

Part 7 – Search for a particular scholarship
The users can search for a particular scholarship by putting the familiar keywords in the search bar.

9 Bibliography

9.1 Web References

[1.] https://reactjs.org/
[2.] https://firebase.google.com/docs
[3.] https://www.youtube.com/user/Firebase
[4.] https://stackoverflow.com/
[5.] https://react.school/material-ui
[6.] https://www.geeksforgeeks.org/unified-modeling-language-uml-introduction/
[7.] https://www.geeksforgeeks.org/
[8.] https://www.w3schools.com/
[9.] https://www.draw.io/connect/office365/index.html