

GRIEVANCE REDRESSAL PORTAL
Project Report Submitted in partial fulfilment of the
Requirements for the award of the Degree of
BACHELOR OF ENGINEERING IN INFORMATION TECHNOLOGY

By

Greta Koutika

1602-18-737-069

Vyuha Kandula

1602-18-737-119

Syed Ayaz

1602-18-737-111

Under the guidance of

Mr. Dharma Reddy

Associate Professor



Department of Information Technology
Vasavi College of Engineering (Autonomous)
(Affiliated to Osmania University)
Ibrahimbagh, Hyderabad-31

2020



Vasavi College of Engineering, Ibrahimbagh
Department of Information Technology

Report on
Grievance Redressal Portal - VCE

Submitted by

Greta Koutika (1602-18-737-069)

Vyuha Kandula (1602-18-737-119)

Syed Ayaz (1602-18-737-111)

Under the guidance of Internal Guide:

Mr. Dharma Reddy

Mentor:

K. Sai Krishna Reddy (1602-17-737-033)

Vasavi College of Engineering
(Affiliated to Osmania University)
Hyderabad-500 031

Department of Information Technology



DECLARATION BY THE CANDIDATE

We **GRETA KOUTIKA, VYUHA KANDULA, SYED AYAZ** bearing hall ticket number, **1602-18-737-069 and 1602-18-737-119, 1602-18-737-111** hereby declare that the project report entitled **GRIEVANCE REDRESSAL PORTAL** Department of Information Technology, Vasavi College of Engineering, Hyderabad, is submitted in partial fulfilment of the requirement for the award of the degree of **Bachelor of Engineering in Information Technology**.

This is a record of bonafide work carried out by me and the results embodied in this project report have not been submitted to any other university or institute for the award of any other degree or diploma.

Greta Koutika

1602-18-737-069

Vyuha Kandula

1602-18-737-119

Syed Ayaz

1602-18-737-111

ABSTRACT

GRIEVANCE REDRESSAL PORTAL

A Grievance is that the dispute that arises at any level of organization. In an education organization many students have vulnerable situations where they fail to state their problems or sometimes fail to seek out proper support for the issue they are facing in an organization this may lead them to dejection.

The purpose of this project is to provide optimised solutions for the student grievances.

Grievance Redressal System is an online platform to receive and act on complaints reported by students of private or public institutions, enabling prompt actions on any issue raised by them and to avail services more effectively.

On scrutinizing the above mentioned problem we culminate this Student Grievance Support System with the following features.

1. The web application builds a platform for the students to lodge the arising conflicts in their daily walk of lives.
2. In the web application students can address their complaints which are forwarded to the Grievance Redressal Committee.
3. The Committee will forward the valid complaints to the Department supporting the sensitivity of the matter. The Institute or Department will take action and update the status which can be viewed by the students.
4. This project provides transparency to the students which can be incorporated to supply solutions to the students.

This solution will reduce time, energy to solve the problems.

TABLE OF CONTENTS

CHAPTER	PAGE
ABSTRACT	
LIST OF FIGURES	
CHAPTERS	
CHAPTER 1 – Introduction.....	7
CHAPTER 2 – Related Work	7
2.1 Existing System	
2.2 Proposed System	
2.3 Need for computerization	
CHAPTER 3 – Proposed Work	8
3.1 Use Case Diagram.....	9
3.2 Screenshots	9-14
3.3 Architecture and Technology used	15
3.4 Design	16
3.5 Implementation	19
3.6 GitHub links and Folder Structure	20
3.6 Testing.....	22
CHAPTER 4 – Results.....	22
CHAPTER 5 – Discussions and Future Work	24
REFERENCES	25

LIST OF FIGURES

FIGURE	PAGE
Fig 1. Use case diagram of GRS.....	9
Fig 2. Homepage (header) of GRS	10
Fig3.Student Profile	10
Fig 4. Academic Complaints	12
Fig 5. Non Academic Complaints	12
Fig 6.Committee Page	12
Fig 7. Faculty Page	13
Fig 8. Architecture of GRS.....	15
Fig 9. Class Diagram	16
Fig 10. Sequence Diagram	16
Fig 11. Student Flowchart Diagram.....	18
Fig 12. Committee Flowchart Diagram.....	18
Fig 13. Faculty Flowchart Diagram.....	19
Fig15. Folder structure	20

1. INTRODUCTION

We develop a Web Application which is dynamic, interactive, responsive and user-friendly. This project covers complaints in all sorts, complaints regarding

- Ragging
- Irregularities in admission process
- finance (fee payment)
- Conflicts in names and mark sheets if any and also other issues faced by the students.

The main objective of the project is to provide redressal to the complaints without time consumption.

This Web Application is accessed by the registered students and login is provided for the Redressal Committee, Institute and Department with appropriate credentials.

2. RELATED WORK

2.1 EXISTING SYSTEM

The existing way to get our queries solved is, going to college and enquiring the respective faculty. But it becomes very difficult for us to manually go and resolve our problems.

When we approach them, sometimes they might be engaged in some other tasks and may not be available. Though we succeed in approaching them, there will be some situations where they need some time to solve it. But later there are odds that they might forget. This will not help us in getting our problems solved.

This scenario is old-fashioned in this advanced technological world.

2.2 PROPOSED SYSTEM

The proposed system fully interactive and efficient, which every can use easily and anything can found easily by using search bars from the website.

Students, Faculty, Committee members should login with their respective credentials.

Student: Once they login, they can choose a particular domain, faculty they want to address according to their problem and raise a complaint. This complaint will be further forwarded to that respective faculty of that domain.

Committee Member: After logging in, they can see all the complaints registered by students. They will forward the complaints to respective faculty.

Faculty: After logging in, they can view all the issues posted by students.

As soon as the complaint is rectified, the status of the complaint is updated by the faculty which can be directly viewed by the student.

2.3 NEED FOR COMPUTERIZATION

All the complaints can be solved easily. Since there will be a record of every grievance no issued will be missed. It saves time, energy.

3. PROPOSED WORK

3.1 Use Case Diagram

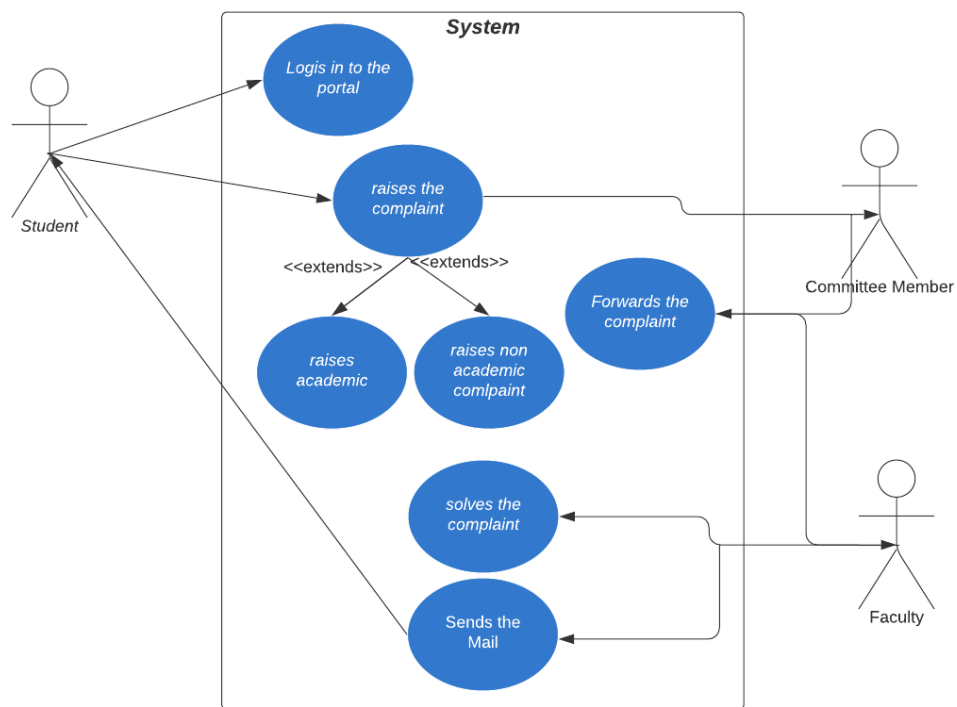


Fig 1. Use case diagram

3.2 Screenshots

3.2.1 Homepage – Login Page(General view)




Login Details

Username:

Password:

Fig 2. Home Page

3.2.2 Student Profile



Vasavi College of Engineering
 (Private Un-aided Non-minority Autonomous Institution)
ACCREDITED BY NAAC WITH 'A++' GRADE
 Affiliated to Osmania University and Approved by AICTE.

Pending complaints Solved complaints Raise complaint ▼

My Profile Logout

Pending Complaints

Academic
Non-Academic

ComplaintId	Description	Department	Time	Status
60	hbahj	Ragging	2021-06-21 00:11:36	Pending
59	djcnjk	Ragging	2021-06-21 00:09:48	Pending
58	abchs	CIVIL	2021-06-21 00:03:00	Pending
55	xyz	Ragging	2021-06-20 23:16:01	Pending
54	nw com	IT	2021-06-19 14:36:27	Pending
44	complaint	IT	2021-06-12 18:42:22	Pending
43	complaint to itdep facu	IT	2021-06-12 18:35:23	Pending
42	sxs	CIVIL	2021-06-12 18:33:27	Pending

Fig 3. Student Profile page

Solved Complaints

ComplaintId	Department	Complaint Description	Solution Description	Time
25	CSE	xyz complaint to CSE Department.	here is the solution.	2021-06-14 20:00:22
35	MECH	com	this is what you need to do.	2021-06-14 23:37:55
34	MECH	complaint to mech	this iJLFS	2021-06-14 23:43:12
50	Admissions	new grievence on admissions	here is the solution	2021-06-16 17:55:20
22	Ragging	comp	here is the solution	2021-06-16 17:56:37
24	Finance	new2	solution.	2021-06-16 18:03:04
52	CSE	complaint to Cse	complaint solved	2021-06-16 19:37:14
53	CSE	new complaint so abd skopk	gcniml;;lo	2021-06-16 20:35:46
12	CSE	complaint to CSE	complaint solved	2021-06-16 20:35:46



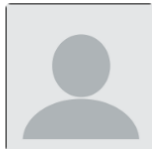
Vasavi College of Engineering

(Private Un-aided Non-minority Autonomous Institution)

ACCREDITED BY NAAC WITH 'A++' GRADE

Affiliated to Osmania University and Approved by AICTE.

Add your
Image



Choose your Photo

First name:

Greta

Last name:

Koutika

Department

Information Technology

Email :

1602-18-737-069@vce.ac.in

Complaints Raised:

50

Pending Complaints:

31

Solved Complaints:

19

3.2.3 Academic Complaint Page:



Vasavi College of Engineering

(Private Un-aided Non-minority Autonomous Institution)

ACCREDITED BY NAAC WITH 'A++' GRADE

Affiliated to Osmania University and Approved by AICTE.

Department

- ☐ CSE
- ☐ ECE
- ☐ EEE
- ☐ IT
- ☐ MECH
- ☐ CIVIL
- ☐ H&SS

Choose a Faculty

Dropdown button ▾

Enter your Grievence:

Enter your grievence here

SUBMIT

Fig 4. Academic complaints

3.2.4 Non Academic Complaint Page:



Vasavi College of Engineering

(Private Un-aided Non-minority Autonomous Institution)

ACCREDITED BY NAAC WITH 'A++' GRADE

Affiliated to Osmania University and Approved by AICTE.

First Name

FirstName

Email

LastName

Email

Email

Department

- ☐ Finance
- ☐ Ragging
- ☐ Admissions

Enter your Grievence:


Enter your grievence here

SUBMIT

Back

Fig 5. Non Academic complaints

3.2.5 Committee Profile




Vasavi College of Engineering
 (Private Un-aided Non-minority Autonomous Institution)
ACCREDITED BY NAAC WITH 'A++' GRADE
 Affiliated to Osmania University and Approved by AICTE.

Academic ▾
 Non Academic ▾
 Logout

ECE
 EEE
 IT
 CIVIL
 MECH
 H&SS

Grievances related to CSE Department

	Name	Time	Grievance Description	Selected Faculty	Status	Forward
1		2021-06-16 20:34:35	new complaint so abd skopk	csefac	Solved	<button style="background-color: #28a745; color: white; padding: 2px 5px;">Forwarded</button>
1		2021-06-16 19:35:22	complaint to Cse	csefac	Solved	<button style="background-color: #28a745; color: white; padding: 2px 5px;">Forwarded</button>
48		2021-06-14 23:41:42	new complaint	csefac	Solved	<button style="background-color: #28a745; color: white; padding: 2px 5px;">Forwarded</button>
1		2021-06-14 23:13:35	new comp to CSEfac	csefac	Solved	<button style="background-color: #28a745; color: white; padding: 2px 5px;">Forwarded</button>



Vasavi College of Engineering
 (Private Un-aided Non-minority Autonomous Institution)
ACCREDITED BY NAAC WITH 'A++' GRADE
 Affiliated to Osmania University and Approved by AICTE.

Academic ▾
 Non Academic ▾
 Logout


Admissions
 Ragging
 Finance

Grievances related to CSE Department

Grievance Number	Name	Time	Grievance Description	Selected Faculty	Status	Forward
53	1	2021-06-16 20:34:35	new complaint so abd skopk	csefac	Solved	<button style="background-color: #28a745; color: white; padding: 2px 5px;">Forwarded</button>
52	1	2021-06-16 19:35:22	complaint to Cse	csefac	Solved	<button style="background-color: #28a745; color: white; padding: 2px 5px;">Forwarded</button>
48	1	2021-06-14 23:41:42	new complaint	csefac	Solved	<button style="background-color: #28a745; color: white; padding: 2px 5px;">Forwarded</button>
1		2021-06-14 23:13:35	new comp to CSEfac	csefac	Solved	<button style="background-color: #28a745; color: white; padding: 2px 5px;">Forwarded</button>

Fig 6: Committee page

3.2.5 Faculty profile



Vasavi College of Engineering
(Private Un-aided Non-minority Autonomous Institution)
ACCREDITED BY NAAC WITH 'A++' GRADE
Affiliated to Osmania University and Approved by AICTE.

Pending complaints Solved complaints Complaints Count=8 Logout

Pending Complaints

ComplaintId	StudentId	First Name	Last Name	Description	Time	Status	Solve
61	1	Koutika	Greta	xyz	2021-06-26 21:13:37	Pending	<button>Solve</button>

Solved Complaints

ComplaintId	StudentId	First Name	Last Name	Description	Time	Status
53	1	Koutika	Greta	new complaint so abd skopk	2021-06-16 20:34:35	Solved
52	1	Koutika	Greta	complaint to Cse	2021-06-16 19:35:22	Solved

Fig 7: Faculty page

3.2.6 Solve Complaint page

Grievence Id: 61

Student Id: 1

First Name: Koutika

Last Name: Greta

Grievence Description: xyz

Time: 2021-06-26 21:13:37

Status: Pending

Solution:

Enter your solution here

Submit

Send Email

3.3 Architecture and Technology

Technology used:

Frontend technologies:

- Html
- Bootstrap CSS
- JS
- React JS

Backend technologies:

- SQLite (Database)
- Node JS
- Express JS

Architecture:

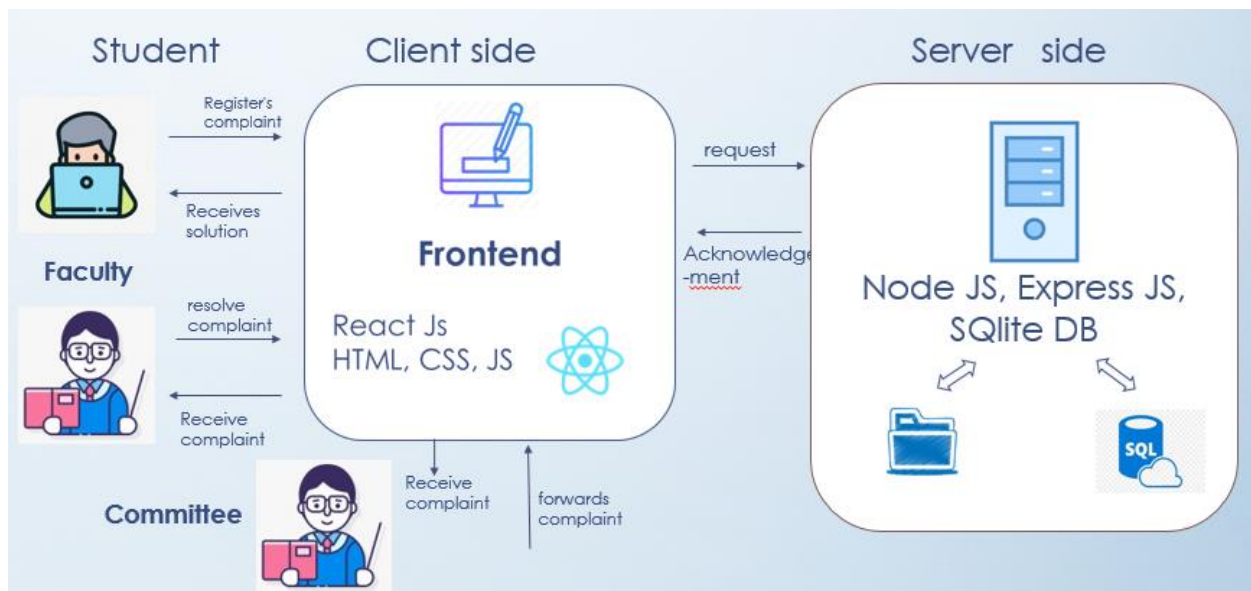


Fig 8: Architecture

3.3.1 React JS Library

Declarative

React makes it painless to create interactive UIs. Design simple views for each state in your application, and React will efficiently update and render just the right components when your data changes.

Declarative views make your code more predictable and easier to debug.

Component-Based

Build encapsulated components that manage their own state, then compose them to make complex UIs.

Since component logic is written in JavaScript instead of templates, you can easily pass rich data through your app and keep state out of the DOM.

3.3.2 Express JS and Node JS

Web Applications

Express is a minimal and flexible Node.js web application framework that provides a robust set of features for web and mobile applications.

APIs

With a myriad of HTTP utility methods and middleware at your disposal, creating a robust API is quick and easy.

Performance

Express provides a thin layer of fundamental web application features, without obscuring Node.js features that you know and love.

.

3.4 Design

3.4.1 UML static diagram

3.4.1.1 Class Diagram

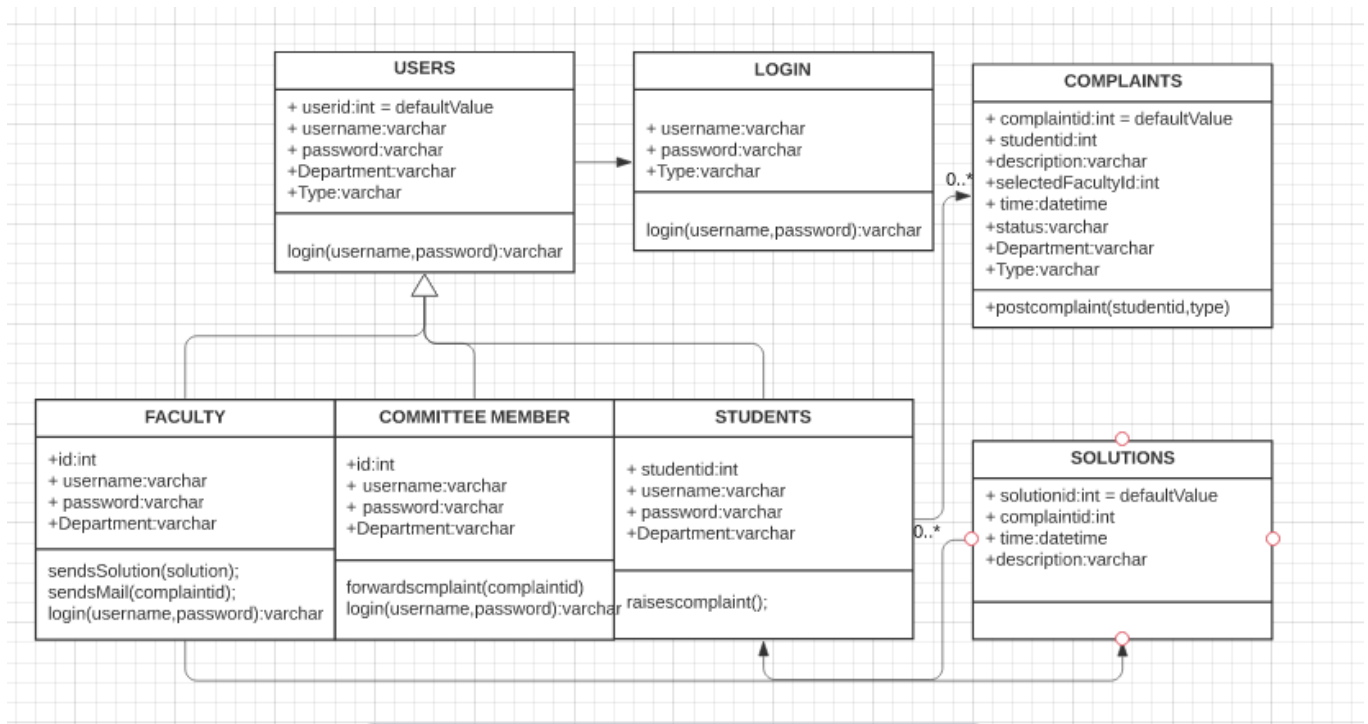


Fig 9. Class Diagram

3.4.1.2 Sequence Diagram

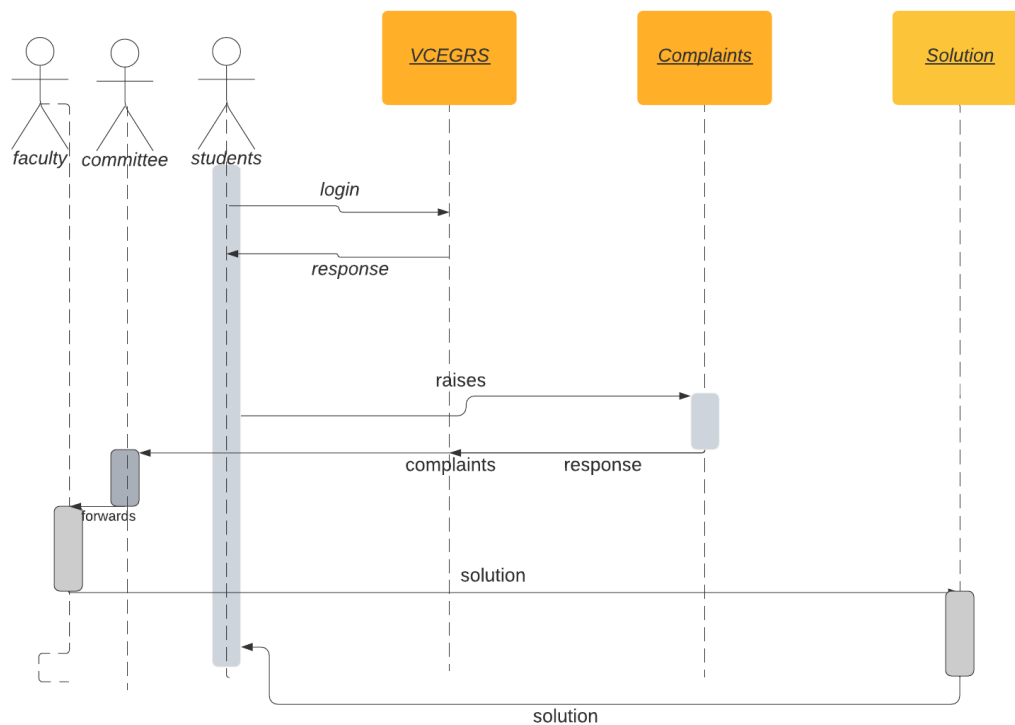
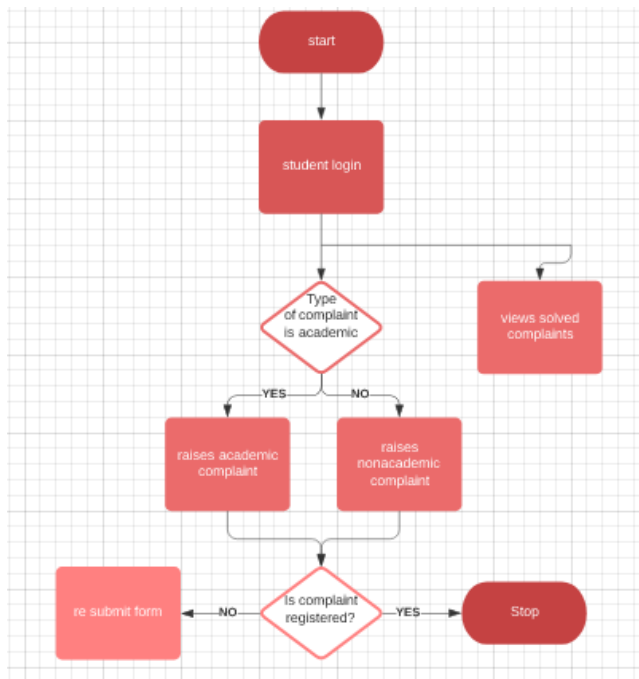


Fig 10. Sequence Diagram

3.4.1.3 Flow Chart Diagram

Student: Fig 11. Student Flow Chart



Committee:

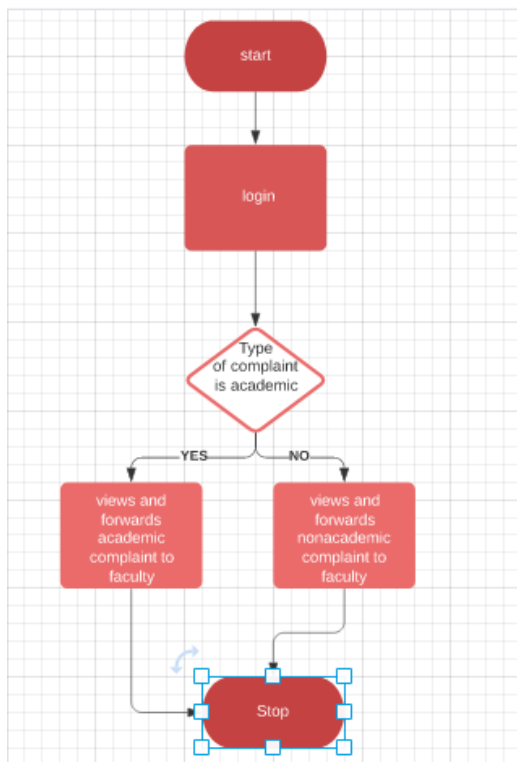


Fig 12.Committee member Flow Chart

Faculty:

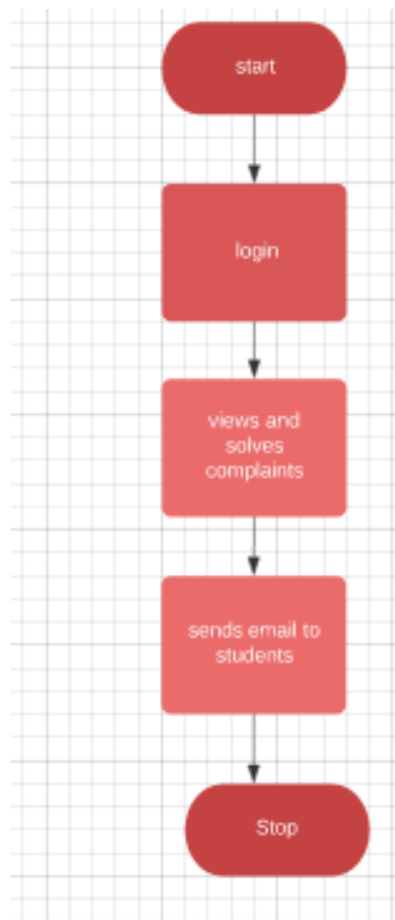


Fig 13. Faculty Flow Chart

3.5 Implementation

Frontend:

Components Used:

1. **Header:** It helps in rendering same header for all pages.
2. **Login Form:** There are three types of Users- Student, Faculty member, Committee member. According to the details given by the user, they will be sent to their respective pages.
3. **Student Profile Component:** It is responsible for managing data of student.
4. **Academic Complaints:** It is responsible for submitting academic complaints registered by students.
5. **Non Academic Complaints:** It is responsible for submitting non-academic complaints registered by students.

6. **Committee:** It is responsible for managing grievances of students.
7. **Academic Department:** Based on the department choosed by the dropdown by the committee member it retrieves all the complaints related to that Department.
Here the Departments are CSE, ECE, EEE, IT, MECH, CIVIL, H&SS
8. **Non-Academic Department:** Based on the department choosed by the dropdown by the committee member it retrieves all the complaints related to that Department.
Here the Departments are Ragging, Admissions and Ragging.
9. **Faculty:** It helps in handling all the complaints received by the faculty member.
10. **Protected Route:** It helps in managing the secured redirection between pages with the help of Cookies.

Backend:

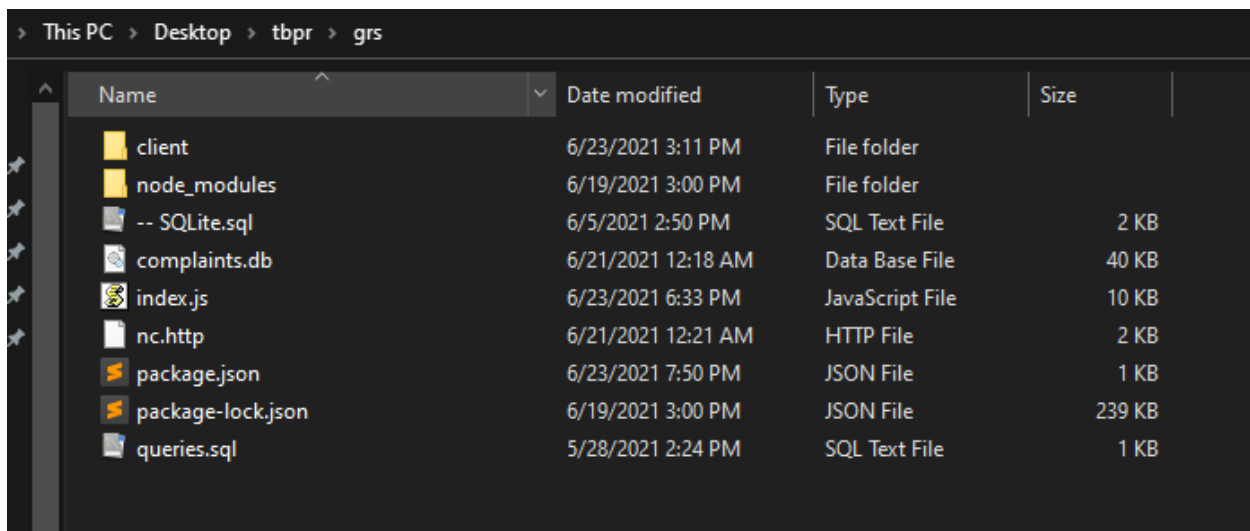
We have index.js which manages all the API calls with the help of express JS.

3.6 GitHub links

Greta Koutika (1602-18-737-069)

🔗 <https://github.com/Gretakoutika/GRSVCE>

3.6.1 Folders Structure



Name	Date modified	Type	Size
client	6/23/2021 3:11 PM	File folder	
node_modules	6/19/2021 3:00 PM	File folder	
-- SQLite.sql	6/5/2021 2:50 PM	SQL Text File	2 KB
complaints.db	6/21/2021 12:18 AM	Data Base File	40 KB
index.js	6/23/2021 6:33 PM	JavaScript File	10 KB
nc.http	6/21/2021 12:21 AM	HTTP File	2 KB
package.json	6/23/2021 7:50 PM	JSON File	1 KB
package-lock.json	6/19/2021 3:00 PM	JSON File	239 KB
queries.sql	5/28/2021 2:24 PM	SQL Text File	1 KB

This PC > Desktop > tbpr > grs > client				
Name	Date modified	Type	Size	
build	6/23/2021 6:36 PM	File folder		
node_modules	6/23/2021 7:36 PM	File folder		
public	5/26/2021 11:17 PM	File folder		
src	6/17/2021 12:44 AM	File folder		
package.json	6/23/2021 7:36 PM	JSON File	2 KB	
package-lock.json	6/23/2021 7:36 PM	JSON File	1,544 KB	
README.md	6/11/2021 12:10 PM	MD File	4 KB	

This PC > Desktop > tbpr > grs > client > src				
Name	Date modified	Type	Size	
Components	6/22/2021 3:14 PM	File folder		
App.css	5/28/2021 12:10 PM	CSS Document	0 KB	
App.js	6/22/2021 2:06 PM	JavaScript File	3 KB	
App.test.js	10/26/1985 1:45 PM	JavaScript File	1 KB	
index.css	5/29/2021 6:57 PM	CSS Document	0 KB	
index.js	5/28/2021 11:55 AM	JavaScript File	1 KB	
reportWebVitals.js	10/26/1985 1:45 PM	JavaScript File	1 KB	
setupTests.js	10/26/1985 1:45 PM	JavaScript File	1 KB	

This PC > Desktop > tbpr > grs > client > src > Components				
Name	Date modified	Type	Size	
Academic	6/10/2021 9:29 PM	File folder		
AcademicDepartment	6/13/2021 10:25 PM	File folder		
Committee	6/13/2021 9:08 PM	File folder		
committeeProfile	6/21/2021 9:02 PM	File folder		
Header	5/30/2021 4:00 PM	File folder		
Lecturer	6/14/2021 2:22 PM	File folder		
lecturerProfile	6/21/2021 9:02 PM	File folder		
LoginForm	6/19/2021 1:39 PM	File folder		
NonAcademic	6/4/2021 7:40 PM	File folder		
NonAcademicDepartment	6/19/2021 9:38 PM	File folder		
profilePic	6/21/2021 8:11 PM	File folder		
ProtectedRoute	6/17/2021 12:35 AM	File folder		
SolveComplaint	6/14/2021 3:57 PM	File folder		
StudentProfile	6/21/2021 8:11 PM	File folder		
UserProfile	6/13/2021 9:09 PM	File folder		

3.7 Testing


1. The testing part could be done on raising the complaint and checking whether it is received by committee or not.
2. If yes then the committee member will forward it to respective faculty member.
3. Faculty should be able to receive the complaint and provide a solution and send mail.
4. Complaint status should be changed.

4.Results

The results you can see in the form of posts. By watching the full post of a company you can understand the everything about the company. In the post you can see company information, eligibility criteria, skills required to crack the interview, recruiting process of the company and mostly asked questions of that company. These are the details i included in every post.

You can see the results of the posts by using below picture.

STUDENTPROFILE



Vasavi College of Engineering
(Private Un-aided Non-minority Autonomous Institution)
ACCREDITED BY NAAC WITH 'A++' GRADE
Affiliated to Osmania University and Approved by AICTE.

Pending complaints Solved complaints Raise complaint ▾

Enter the department

My Profile Logout

Pending Complaints

ComplaintId	Description	Department	Time	Status
61	xyz	CSE	2021-06-26 21:13:37	Pending



Vasavi College of Engineering

(Private Un-aided Non-minority Autonomous Institution)

ACCREDITED BY NAAC WITH 'A++' GRADE

Affiliated to Osmania University and Approved by AICTE.

Academic ▾ Non Academic ▾ Logout

Grievances related to CSE Department

Grievence Number	Name	Time	Grievence Description	Selected Faculty	Status	Forward
61	1	2021-06-26 21:13:37	xyz	csefac	Pending	<button>Forwarded</button>

FACULTYPROFILE



Vasavi College of Engineering

(Private Un-aided Non-minority Autonomous Institution)

ACCREDITED BY NAAC WITH 'A++' GRADE

Affiliated to Osmania University and Approved by AICTE.

Pending complaints Solved complaints Complaints Count=8 Logout

Pending Complaints

ComplaintId	StudentId	First Name	Last Name	Description	Time	Status	Solve
61	1	Koutika	Greta	xyz	2021-06-26 21:13:37	Pending	<button>Solve</button>



vasavi College of Engineering

(Private Un-aided Non-minority Autonomous Institution)

ACCREDITED BY NAAC WITH 'A++' GRADE

Affiliated to Osmania University and Approved by AICTE.

Grievence Id: 61

Student Id: 1

First Name: Koutika

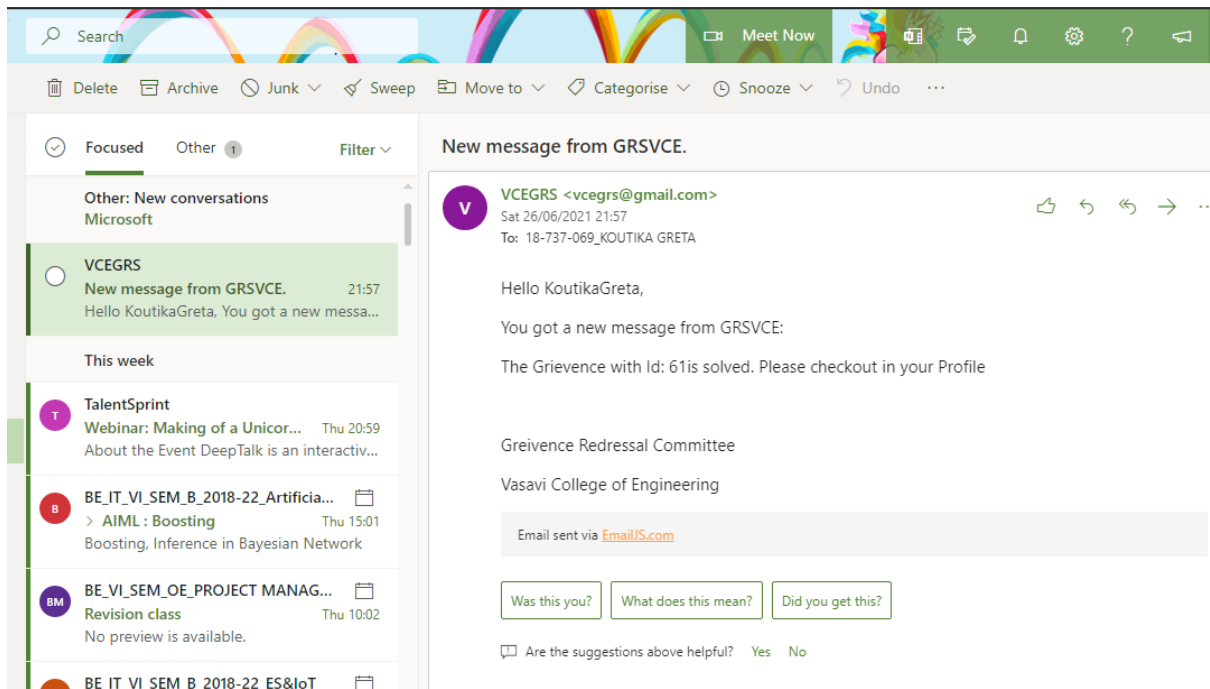
Last Name: Greta

Grievence Description: xyz

Time: 2021-06-26 21:13:37

Status: Solved

Email Sent



In Student Profile

Solved Complaints

ComplaintId	Department	Complaint Description	Solution Description	Time
25	CSE	xyz complaint to CSE Department.	here is the solution.	2021-06-14 20:00:22

5. Discussion and Future Work

Every application has its own merits and demerits. The project has covered almost all the requirements. Further requirements and improvements can easily be done since the coding is mainly structured or modular in nature. Changing the existing components or adding new components can append improvements. Further enhancements are

1. Student should be able to post complaint using different media.
2. Want to Use data Science and add Principal portal so that he can view the statistics of Grievances.
3. Create a mobile app.

References

1. <https://reactjs.org/>
2. <https://youtu.be/w7ejDZ8SWv8> - React tutorial
3. <https://youtu.be/Oe421EPjeBE> - Node and Express js tutorial