SCTR's Pune Institute of Computer Technology
Dhankawadi, Pune

AN INTERNSHIP REPORT ON

Full Stack Web Development Internship In PICT FOSS Club

SUBMITTED BY
Name - Vinayak Sidram Jamadar
Class - TE 01
Roll no - 31137

Under the guidance of
Prof. Anupama Phakatakar

DEPARTMENT OF COMPUTER ENGINEERING
ACADEMIC YEAR 2022-23

DEPARTMENT OF COMPUTER ENGINEERING

SCTR's Pune Institute of Computer Technology
Dhankawadi, Pune
Maharashtra 411043

CERTIFICATE

This is to certify that the SPPU Curriculum-based internship report entitled
"Full Stack Web Development Internship"

Submitted by
Vinayak Sidram Jamadar
Roll No. 31137

has satisfactorily completed the curriculum-based internship under the guidance of *Prof. Anupama Phakatakar* towards the partial fulfillment of third year Computer Engineering Semester VI, Academic Year 2022-23 of Savitribai Phule Pune University.

Prof. Anupama Phakatakar
Internship Guide
PICT, Pune

Dr. Geetanjali Kale
Head
Department of Computer Engineering
PICT, Pune

Place:PICT,Pune
Date:

Acknowledgement

It gives me great pleasure in presenting the internship report on “Full Stack Web Development Internship”.

First of all I would like to take this opportunity to thank my internship guide Prof. Anupama Phakatakar for giving me all the help and guidance needed. I am really grateful for her kind support and valuable suggestions that proved to be beneficial in the overall completion of this internship.

I am thankful to our Head of Computer Engineering Department, Dr. G.V.Kale, for her indispensable support and suggestions throughout the internship work.

I would also genuinely like to express my gratitude to the Department Internship Coordinator, Prof.P.P.Joshi, for her constant guidance and support and for the timely resolution of the doubts related to the internship process.

Finally, I would like to thank my mentor, Prof. Arundhati Chandorkar for his constant help and support during the overall internship process.

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9 Any achievement (Job opportunity, project sponsorship, patent, commercial product, research publications, pre-placement offers, a strong professional network etc.) **22**

1 Title

PICT Training and Placement Platform.

2 Introduction

The training and placement cell platform is a critical system that plays a vital role in shaping a student's career and helping them acquire the necessary skills and knowledge to succeed in their chosen fields. A well-designed and effective training and placement cell platform can bridge the gap between academia and industry and help students meet the industry's demands.

This report aims to evaluate a basic training and placement cell platform's effectiveness and provide insights into its strengths and weaknesses. The report will analyze the platform's performance in terms of user engagement, feedback mechanisms, and user satisfaction.

The report will provide an overview of the basic training and placement cell platform's structure and features, highlighting its strengths and weaknesses. It will also assess the platform's ability to provide career guidance, connect students with relevant job opportunities, and offer basic training programs that cater to industry demands.

Additionally, the report will evaluate the platform's communication channels, feedback mechanisms, and overall user satisfaction. It will also suggest ways to enhance the platform's performance and usability, keeping in mind the changing demands of the industry and academia.

Overall, this report aims to provide a comprehensive understanding of the basic training and placement cell platform's role in facilitating the job placement process and improving the students' employability. It will suggest ways to enhance the platform's performance and usability, keeping in mind the changing demands of the industry and academia.

3 Problem Statement

The project was based on PICT TnP Platform, which aimed to streamline the recruitment process for the institute. This application will help PICT TnP Cell for generating custom reports of students in the placement.

4 Objectives and Scope

The primary objectives of this project were as follows:

1. To gain hands-on experience in developing a real-world application using Node.js, MongoDB, Express.js, and React.js.
2. To understand the recruitment process of our institute and identify opportunities to streamline it using technology.
3. To develop skills in agile software development, including requirements gathering, design, coding, testing, and deployment.
4. To improve teamwork and communication skills by collaborating with other developers, designers, and stakeholders on the project.
5. To learn how to gather and analyze user feedback and incorporate it into the development process.
6. To gain insights into the workings of a professional environment and the role of technology in solving real-world problems.

The scope of this project were as follows:

1. The website developed during my internship, which aims to streamline the recruitment process of our institute and generate custom reports for the Tnp cell.
2. The report covers the technical skills and tools used in the development of the website, including Node.js, MongoDB, Express.js, and React.js.
3. The report also covers the development process, including requirements gathering, design, coding, testing, and deployment.
4. The impact of the website on the recruitment process and the Tnp cell's ability to generate custom reports is within the scope of this report.
5. The report also covers any notable achievements or experiences I had during my internship.
6. The report does not cover any other projects or activities that I was involved in during my internship at the Tnp cell.

5 Methodological Details

The methodology adopted for designing the Tnp website involved the following steps:

1. Understanding and Requirement gathering: Understanding the client's requirements (Tnp Cell)
2. Research: Conducting research on how the recruitment process works.
3. Design and architecture: Designing the website layout using Adobe XD
4. Implementation: Coding the website using ReactJS, Nodejs, ExpressJs, MongoDB etc.
5. Testing and Debugging: Testing the website for bugs and errors
6. Deployment: Deploying the website on a web server

6 Modern engineering tools used

During the course of this project, several modern engineering tools were employed, including:

1. Node.js: A powerful JavaScript runtime environment used for server-side development.
2. Express.js: A fast and flexible Node.js web application framework used for building APIs and web applications.
3. REST API: Representational State Transfer (REST) API for creating scalable and efficient web services.
4. Nodemailer: A Node.js module that simplifies sending email messages using various email services and protocols.
5. MongoDB: An open-source, scalable Document type NoSQL database.
6. Mongoose.js: An Object Data Modeling (ODM) library for Node.js and MongoDB that simplifies the interactions with MongoDB databases by providing a schema-based solution to model and query data.
7. React.js: An open-source JavaScript library used for building user interfaces and UI components in web applications.
8. Bootstrap: A fast and flexible Node.js web application framework used for building APIs and web applications.
9. Postman: A popular collaboration platform for API development that simplifies testing, documenting, and sharing APIs by providing a user-friendly interface for creating, testing, and automating HTTP requests.

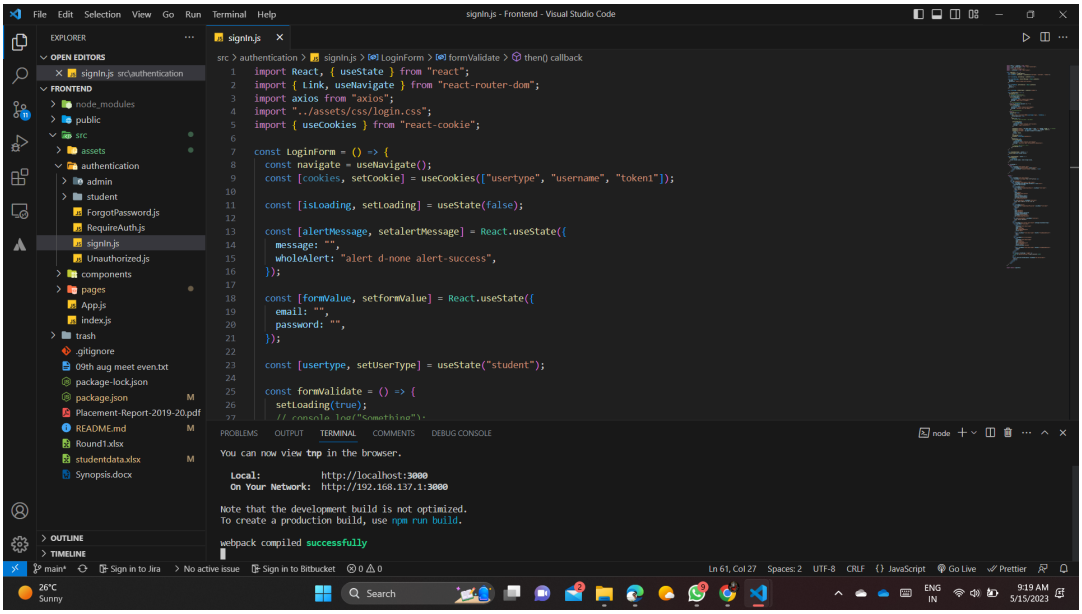
Hardware and other requirements: Visual studio code (IDE), 16GB RAM, Windows operating system, Latest browser. Other technologies: Git, Github, Postman, Heroku.

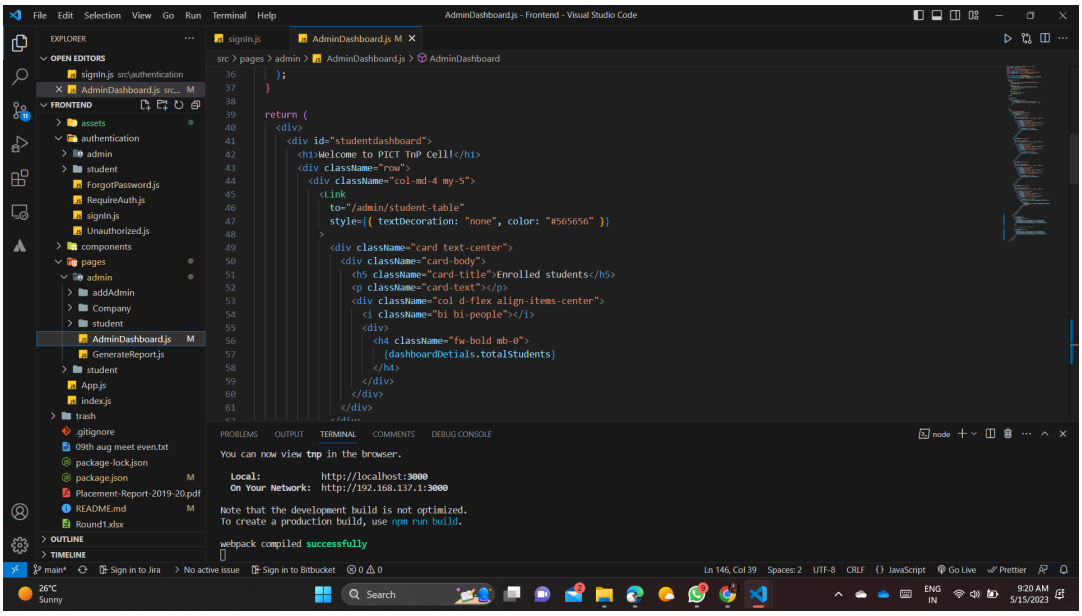
7 Outcome/ results of internship work (screenshots of work done)

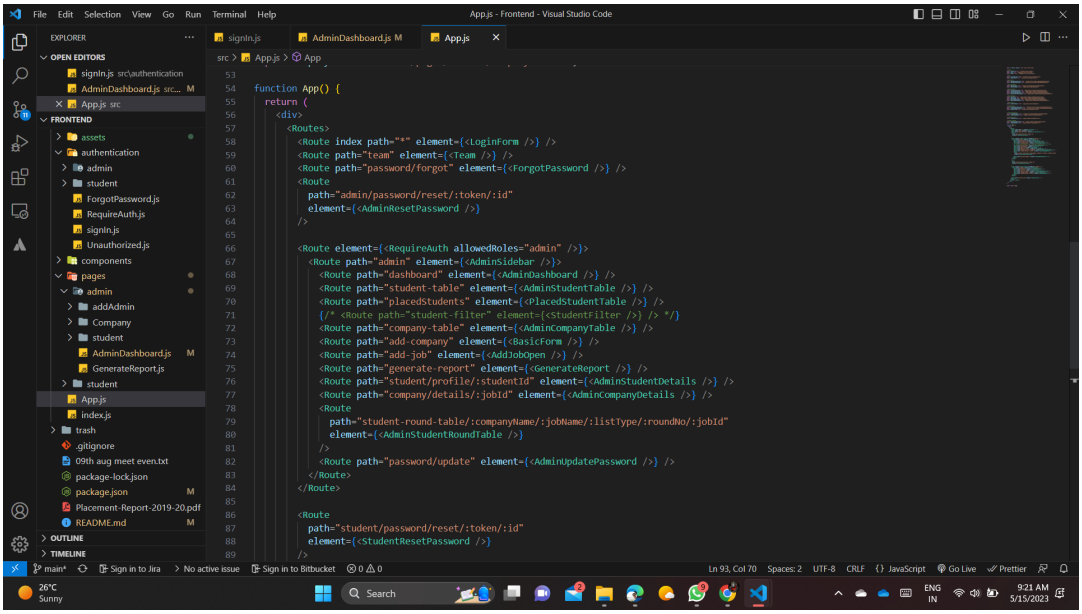
The internship project resulted in the successful development of a robust working web application. The application provides the following outcomes:

1. The project would be developed using the MERN stack, which includes MongoDB, ExpressJS, ReactJS, and NodeJS.
2. The web application would be designed to assist the Training and Placement (TnP) Cell in handling the recruitment process during placement seasons.
3. Companies can submit job postings through a user-friendly interface in the web application, which would be stored in a MongoDB database.
4. Students can apply to job postings through the application, and their data would also be stored in the database.
5. The TnP Cell can use the application to view and manage all job postings, student applications, and other relevant information.
6. The application can provide analytics on the performance of students in different rounds of recruitment, helping the TnP Cell to make better decisions and track the progress of students.
7. Developers can use various tools such as Mongoose for MongoDB integration, NodeJS for server-side development, ExpressJS for building the application's backend, and ReactJS for building the frontend.
8. Additional technologies and frameworks such as Props for state management, Bootstrap for building the user interface, and Axios for handling API requests can also be used.
9. The project would provide a comprehensive solution for managing and organizing data during placement seasons, making it easier for TnP Cells and students to navigate the recruitment process.

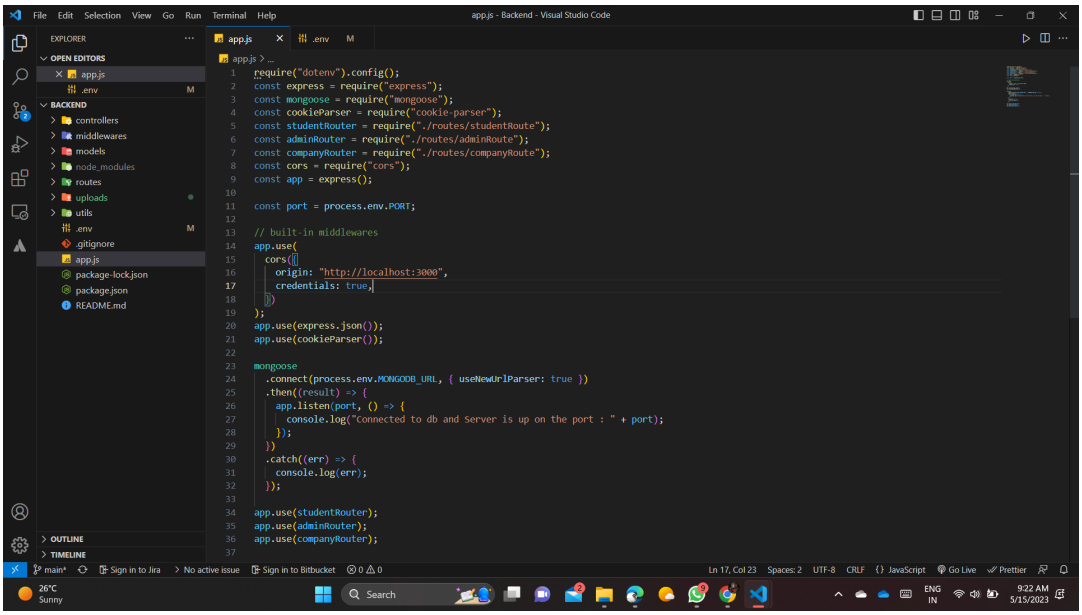
8 Screenshots

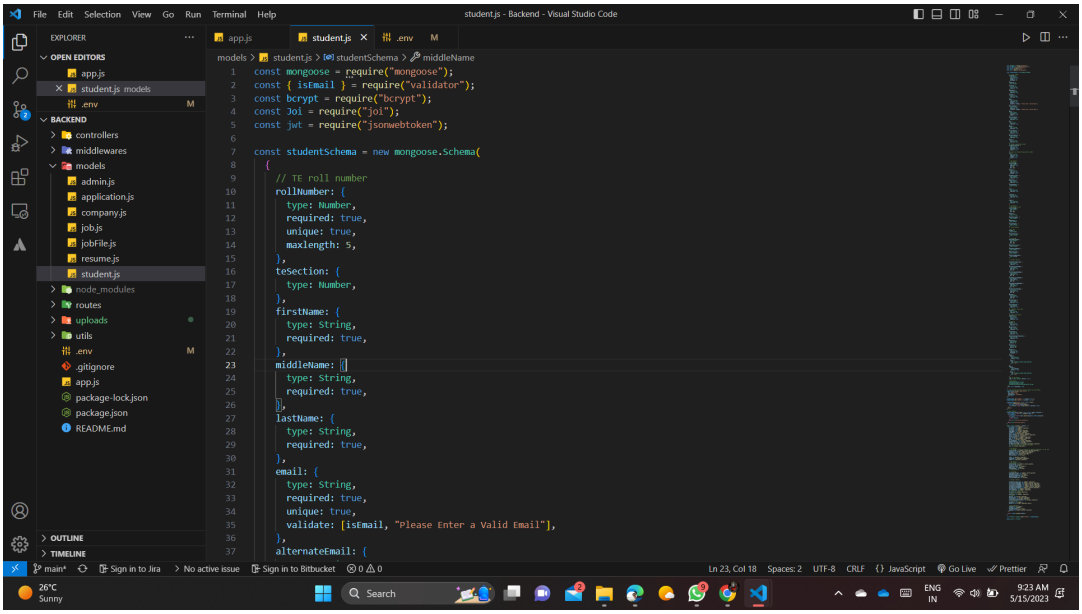


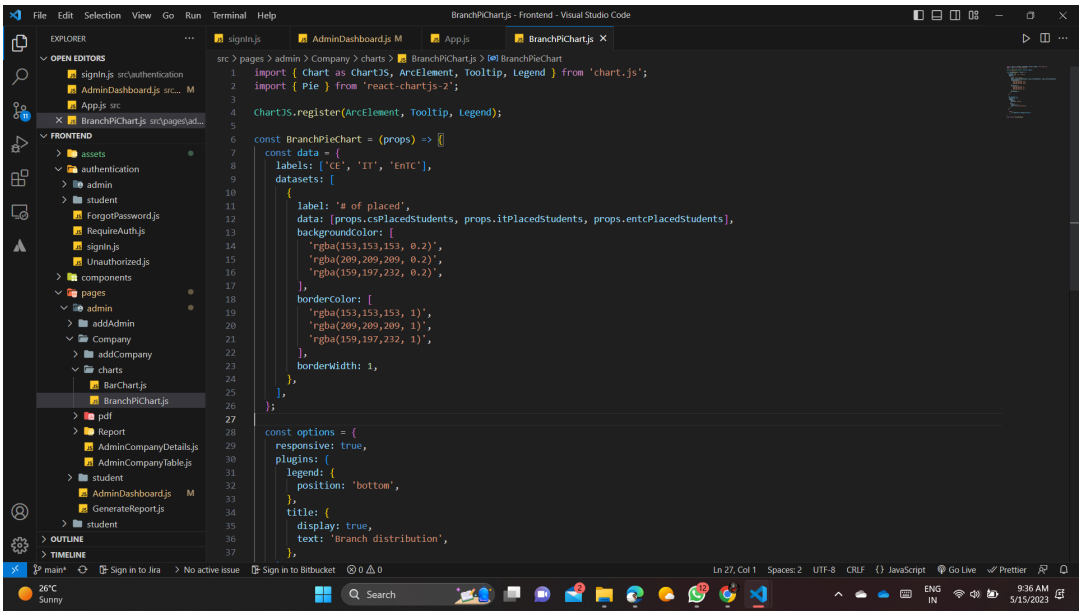


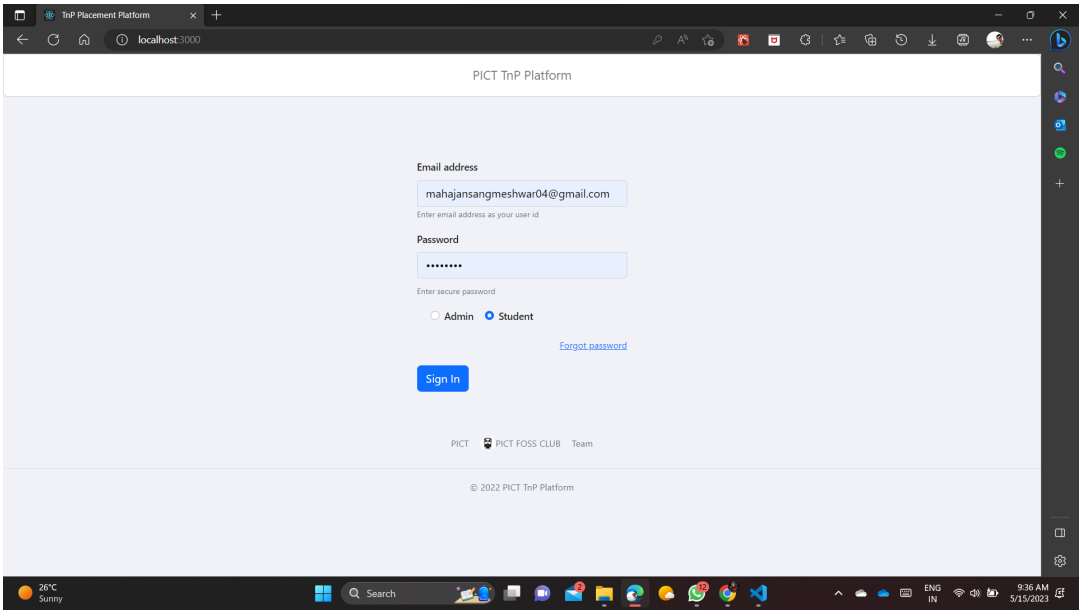

App.js - Frontend - Visual Studio Code
signIn.js
AdminDashboard.js M
App.js
src > App.js > App
function App() {
return (

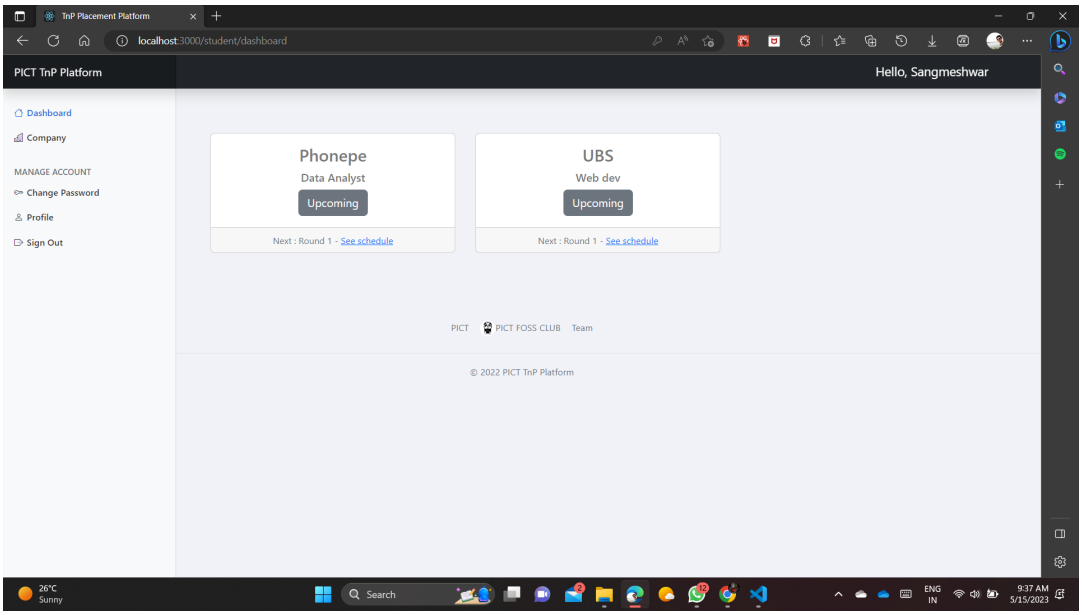
<Routes>
<Route index path="*" element={<LoginForm />} />
<Route path="team" element={<Team />} />
<Route path="password/forgot" element={<ForgotPassword />} />
<Route
path="admin/password/reset/:token/:id"
element={<AdminResetPassword />}
/>
<Route element={<RequireAuth allowedRoles="admin" />}>
<Route path="admin" element={<AdminSidebar />}>
<Route path="dashboard" element={<AdminDashboard />} />
<Route path="student-table" element={<AdminStudentTable />} />
<Route path="placedStudents" element={<PlacedStudentTable />} />
{/* <Route path="student-filter" element={<StudentFilter />} /> */}
<Route path="company-table" element={<AdminCompanyTable />} />
<Route path="add-company" element={<BasicForm />} />
<Route path="add-job" element={<AddJobOpen />} />
<Route path="generate-report" element={<GenerateReport />} />
<Route path="student/profile/:studentId" element={<AdminStudentDetails />} />
<Route path="company/details/:jobId" element={<AdminCompanyDetails />} />
<Route
path="student-round-table/:companyName/:jobName/:listType/:roundNo/:jobId"
element={<AdminStudentRoundTable />}
/>
<Route path="password/update" element={<AdminUpdatePassword />} />
</Route>
</Route>
<Route
path="student/password/reset/:token/:id"
element={<StudentResetPassword />}
/>


app.js - Backend - Visual Studio Code
app.js
.env
app.js > ...
require("dotenv").config();
const express = require("express");
const mongoose = require("mongoose");
const cookieParser = require("cookie-parser");
const studentRouter = require("./routes/studentRoute");
const adminRouter = require("./routes/adminRoute");
const companyRouter = require("./routes/companyRoute");
const cors = require("cors");
const app = express();
const port = process.env.PORT;
// built-in middlewares
app.use(
cors({
origin: "http://localhost:3000",
credentials: true,
})
);
app.use(express.json());
app.use(cookieParser());
mongoose
.connect(process.env.MONGODB_URL, { useNewUrlParser: true })
.then((result) => {
app.listen(port, () => {
console.log("Connected to db and Server is up on the port : " + port);
});
})
.catch((err) => {
console.log(err);
});
app.use(studentRouter);
app.use(adminRouter);
app.use(companyRouter);


student.js - Backend - Visual Studio Code
models > student.js > studentSchema > middleName
const mongoose = require("mongoose");
const { isEmail } = require("validator");
const bcrypt = require("bcrypt");
const Joi = require("joi");
const jwt = require("jsonwebtoken");
const studentSchema = new mongoose.Schema(
{
// TE roll number
rollNumber: {
type: Number,
required: true,
unique: true,
maxlength: 5,
},
teSection: {
type: Number,
},
firstName: {
type: String,
required: true,
},
middleName: {
type: String,
required: true,
},
lastName: {
type: String,
required: true,
},
email: {
type: String,
required: true,
unique: true,
validate: [isEmail, "Please Enter a Valid Email"],
},
alternateEmail: {


BranchPiChart.js - Frontend - Visual Studio Code
src > pages > admin > Company > charts > BranchPiChart.js > BranchPieChart
import { Chart as ChartJS, ArcElement, Tooltip, Legend } from 'chart.js';
import { Pie } from 'react-chartjs-2';
ChartJS.register(ArcElement, Tooltip, Legend);
const BranchPieChart = (props) => {
const data = {
labels: ['CE', 'IT', 'EnTC'],
datasets: [
{
label: '# of placed',
data: [props.csPlacedStudents, props.itPlacedStudents, props.entcPlacedStudents],
backgroundColor: [
'rgba(153,153,153, 0.2)',
'rgba(209,209,209, 0.2)',
'rgba(159,197,232, 0.2)',
],
borderColor: [
'rgba(153,153,153, 1)',
'rgba(209,209,209, 1)',
'rgba(159,197,232, 1)',
],
borderWidth: 1,
},
],
};
const options = {
responsive: true,
plugins: {
legend: {
position: 'bottom',
},
title: {
display: true,
text: 'Branch distribution',
},


TnP Placement Platform
localhost:3000
PICT TnP Platform
Email address
mahajansangmeshwar04@gmail.com
Enter email address as your user id
Password
Enter secure password
Admin
Student
Forgot password
Sign In
PICT
PICT FOSS CLUB
Team
© 2022 PICT TnP Platform


TnP Placement Platform
localhost:3000/student/dashboard
PICT TnP Platform
Hello, Sangmeshwar
Dashboard
Company
MANAGE ACCOUNT
Change Password
Profile
Sign Out
Phonepe
Data Analyst
Upcoming
Next : Round 1 - See schedule
UBS
Web dev
Upcoming
Next : Round 1 - See schedule
PICT
PICT FOSS CLUB
Team
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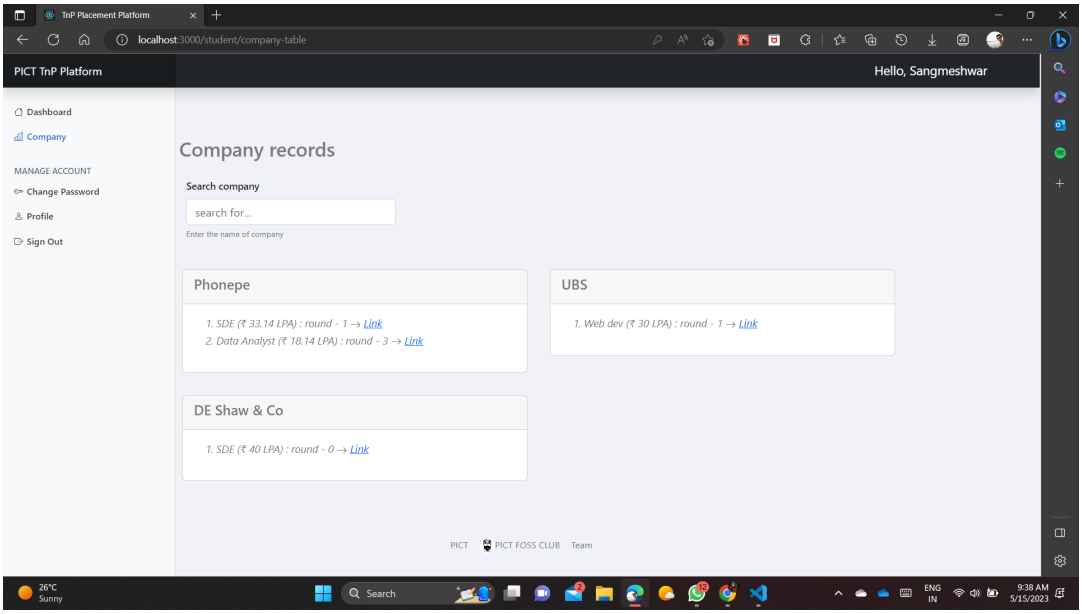
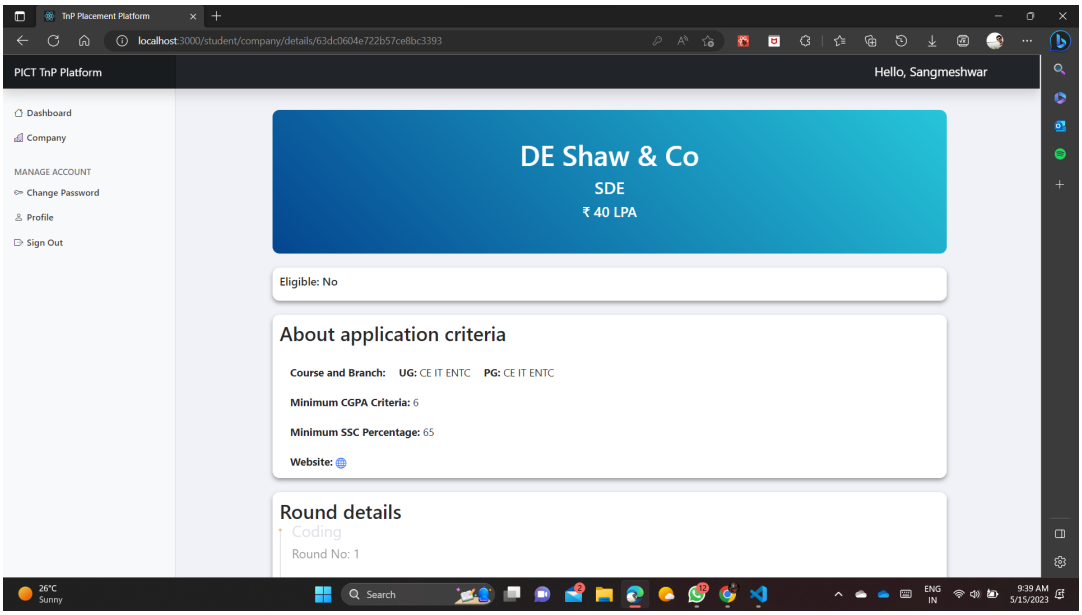
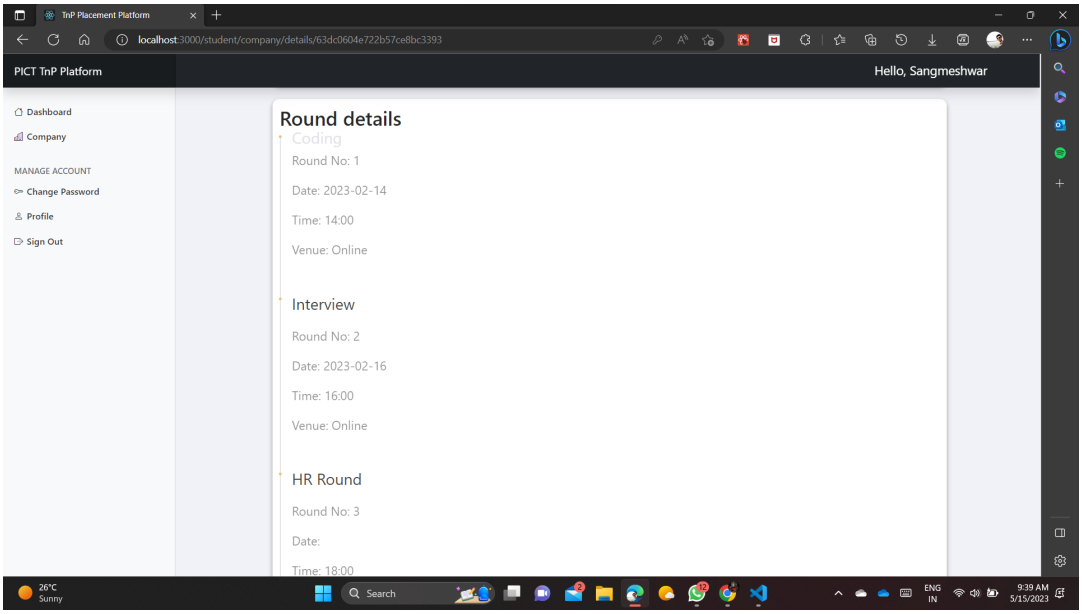
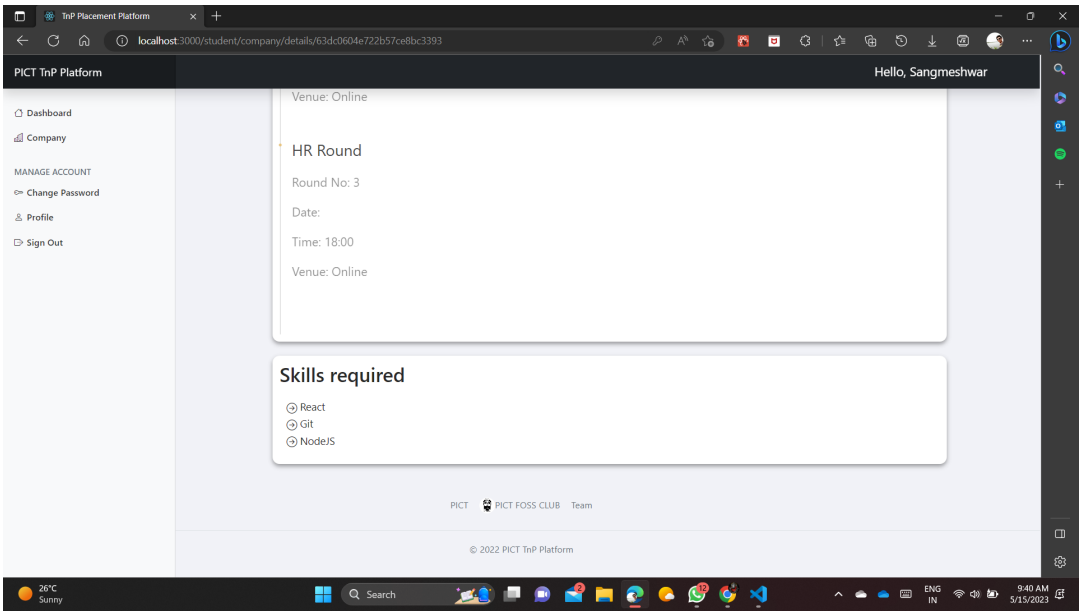
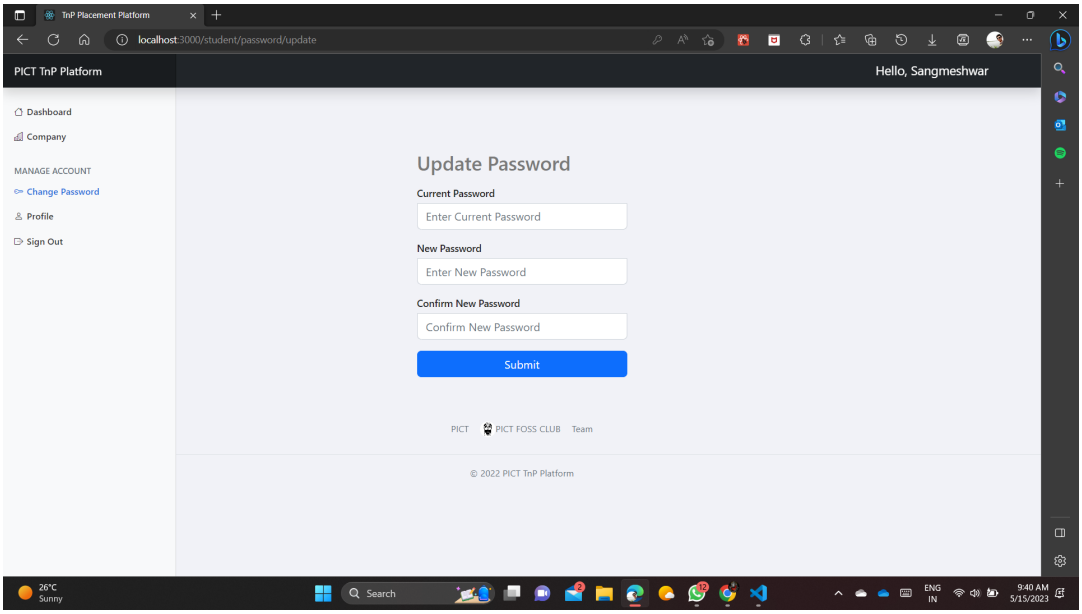

TnP Placement Platform
localhost:3000/student/company-table
PICT TnP Platform
Hello, Sangmeshwar
Dashboard
Company
MANAGE ACCOUNT
Change Password
Profile
Sign Out
Company records
Search company
search for...
Enter the name of company
Phonepe
1. SDE (₹ 33.14 LPA) : round - 1 → Link
2. Data Analyst (₹ 18.14 LPA) : round - 3 → Link
UBS
1. Web dev (₹ 30 LPA) : round - 1 → Link
DE Shaw & Co
1. SDE (₹ 40 LPA) : round - 0 → Link
PICT
PICT FOSS CLUB
Team


TnP Placement Platform
localhost:3000/student/company/details/63dc0604e722b57ce8bc3393
PICT TnP Platform
Hello, Sangmeshwar
Dashboard
Company
MANAGE ACCOUNT
Change Password
Profile
Sign Out
DE Shaw & Co
SDE
₹ 40 LPA
Eligible: No
About application criteria
Course and Branch: UG: CE IT ENTC PG: CE IT ENTC
Minimum CGPA Criteria: 6
Minimum SSC Percentage: 65
Website:
Round details
Coding
Round No: 1


TnP Placement Platform
localhost:3000/student/company/details/63dc0604e722b57ce8bc3393
PICT TnP Platform
Hello, Sangmeshwar
Dashboard
Company
MANAGE ACCOUNT
Change Password
Profile
Sign Out
Round details
Coding
Round No: 1
Date: 2023-02-14
Time: 14:00
Venue: Online
Interview
Round No: 2
Date: 2023-02-16
Time: 16:00
Venue: Online
HR Round
Round No: 3
Date:
Time: 18:00


TnP Placement Platform
localhost:3000/student/company/details/63dc0604e722b57ce8bc3393
PICT TnP Platform
Hello, Sangmeshwar
Dashboard
Company
MANAGE ACCOUNT
Change Password
Profile
Sign Out
Venue: Online
HR Round
Round No: 3
Date:
Time: 18:00
Venue: Online
Skills required
React
Git
NodeJS
PICT
PICT FOSS CLUB
Team
© 2022 PICT TnP Platform


TnP Placement Platform
localhost:3000/student/password/update
PICT TnP Platform
Hello, Sangmeshwar
Dashboard
Company
MANAGE ACCOUNT
Change Password
Profile
Sign Out
Update Password
Current Password
Enter Current Password
New Password
Enter New Password
Confirm New Password
Confirm New Password
Submit
PICT
PICT FOSS CLUB
Team
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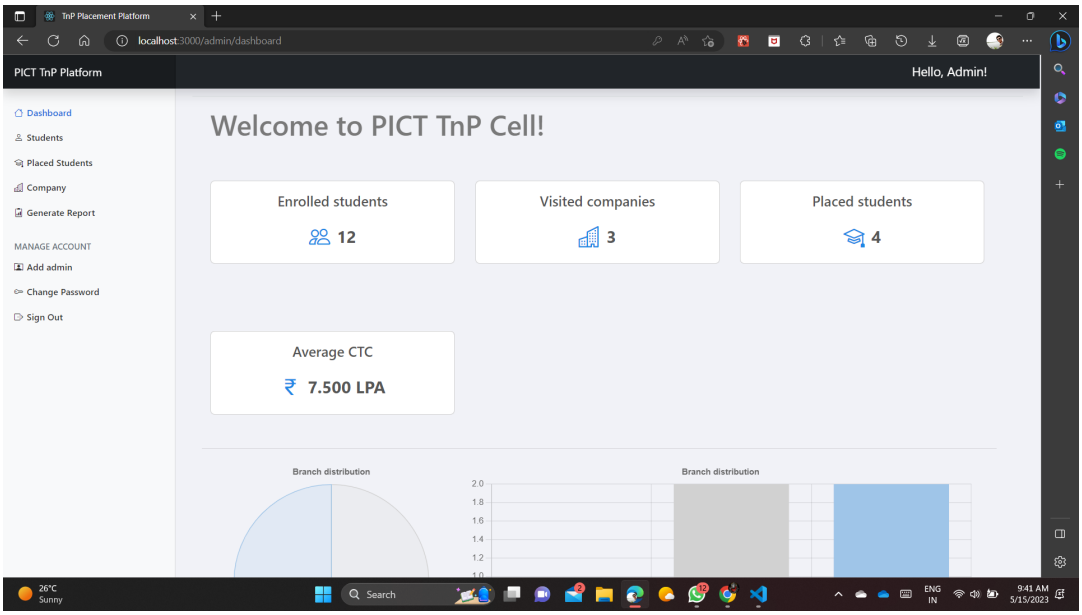
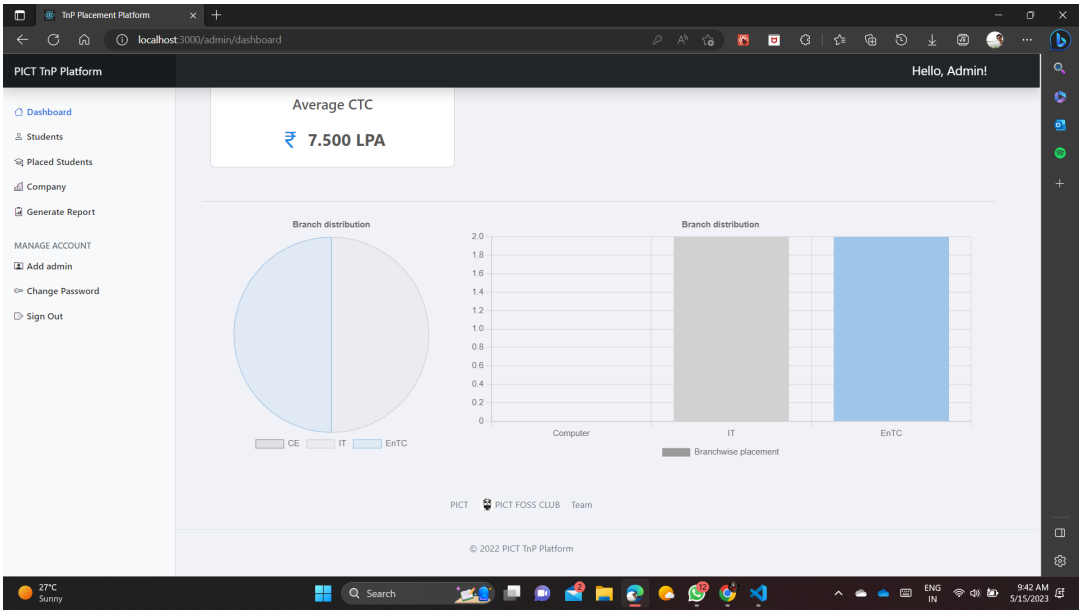

TnP Placement Platform
localhost:3000/admin/dashboard
PICT TnP Platform
Hello, Admin!
Dashboard
Students
Placed Students
Company
Generate Report
MANAGE ACCOUNT
Add admin
Change Password
Sign Out
Welcome to PICT TnP Cell!
Enrolled students
12
Visited companies
3
Placed students
4
Average CTC
7.500 LPA
Branch distribution
Branch distribution


TnP Placement Platform
localhost:3000/admin/dashboard
PICT TnP Platform
Hello, Admin!
Dashboard
Students
Placed Students
Company
Generate Report
MANAGE ACCOUNT
Add admin
Change Password
Sign Out
Average CTC
₹ 7.500 LPA
Branch distribution
CE
IT
EnTC
Branch distribution
Computer
IT
EnTC
Branchwise placement
PICT
PICT FOSS CLUB
Team
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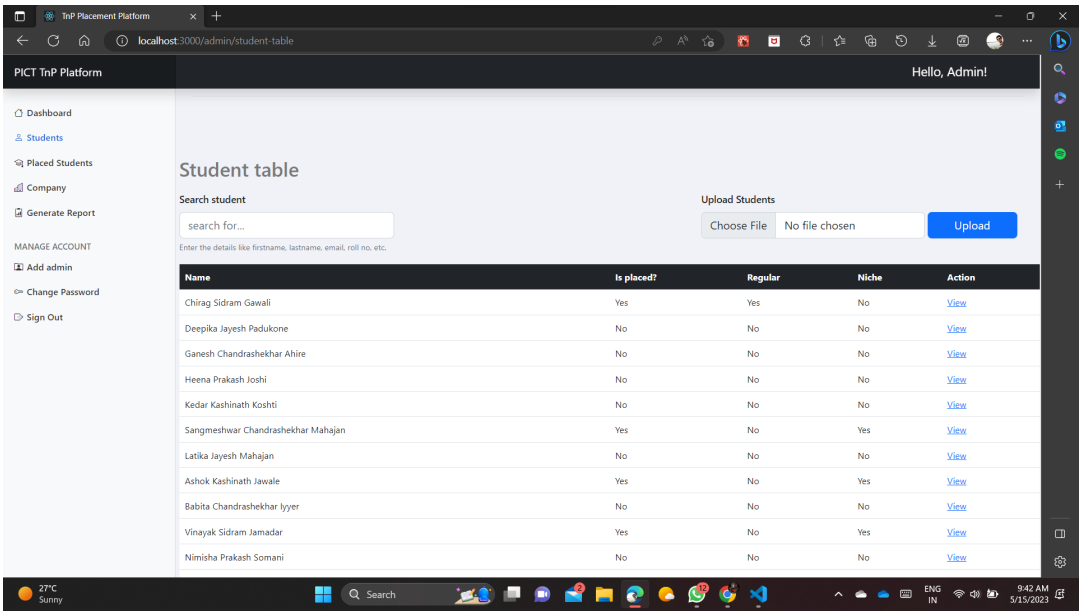
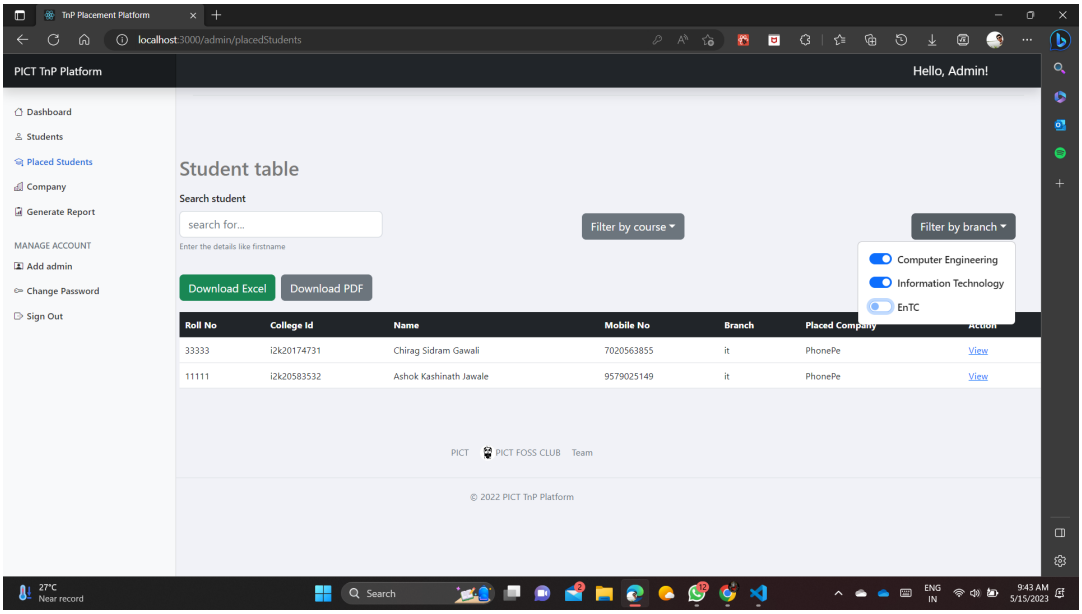

TnP Placement Platform
localhost:3000/admin/student-table
PICT TnP Platform
Hello, Admin!
Dashboard
Students
Placed Students
Company
Generate Report
MANAGE ACCOUNT
Add admin
Change Password
Sign Out
Student table
Search student
search for...
Enter the details like firstname, lastname, email, roll no, etc.
Upload Students
Choose File
No file chosen
Upload
Name
Is placed?
Regular
Niche
Action
Chirag Sidram Gawali
Deepika Jayesh Padukone
Ganesh Chandrashekhar Ahire
Heena Prakash Joshi
Kedar Kashinath Koshti
Sangmeshwar Chandrashekhar Mahajan
Latika Jayesh Mahajan
Ashok Kashinath Jawale
Babita Chandrashekhar Iyyer
Vinayak Sidram Jamadar
Nimisha Prakash Somani


TnP Placement Platform
localhost:3000/admin/placedStudents
PICT TnP Platform
Hello, Admin!
Dashboard
Students
Placed Students
Company
Generate Report
MANAGE ACCOUNT
Add admin
Change Password
Sign Out
Student table
Search student
search for...
Enter the details like firstname
Filter by course
Filter by branch
Computer Engineering
Information Technology
EnTC
Download Excel
Download PDF
Roll No
College Id
Name
Mobile No
Branch
Placed Company
Action
33333
i2k20174731
Chirag Sidram Gawali
7020563855
it
PhonePe
View
11111
i2k20583532
Ashok Kashinath Jawale
9579025149
it
PhonePe
View
PICT
PICT FOSS CLUB
Team
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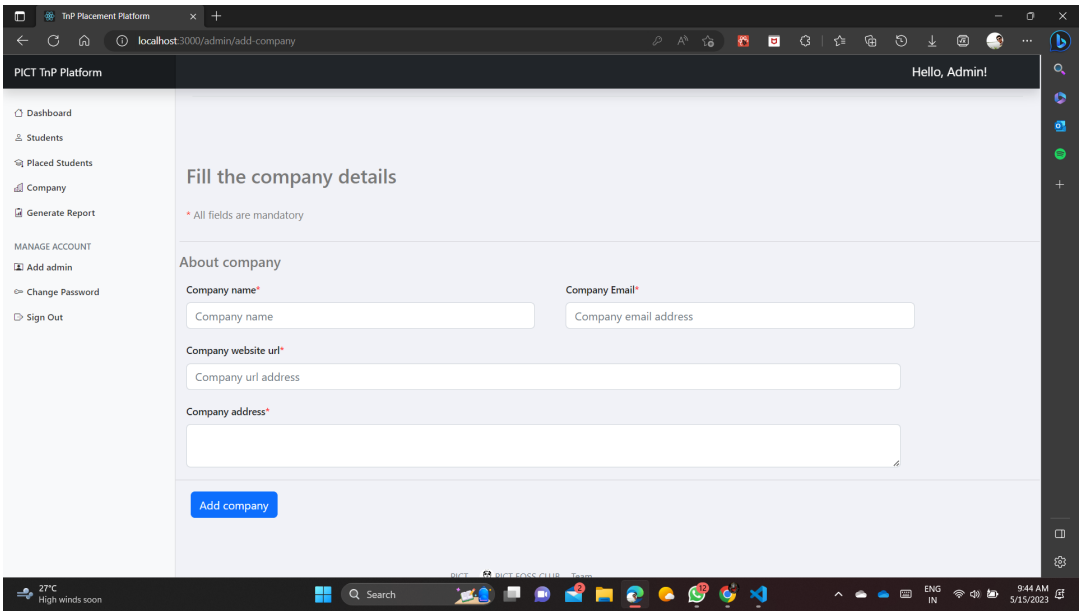
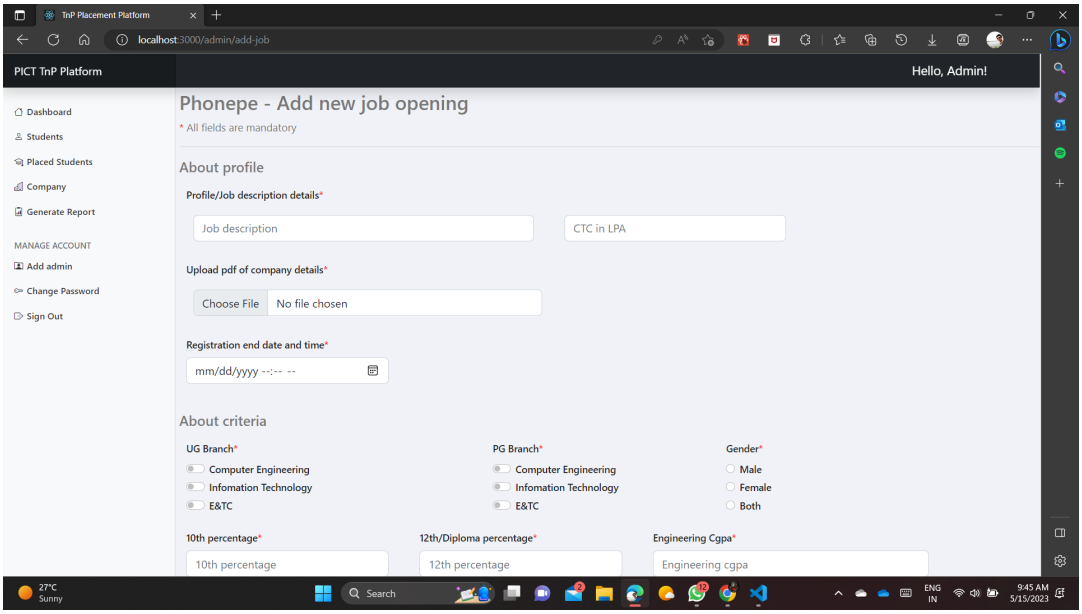
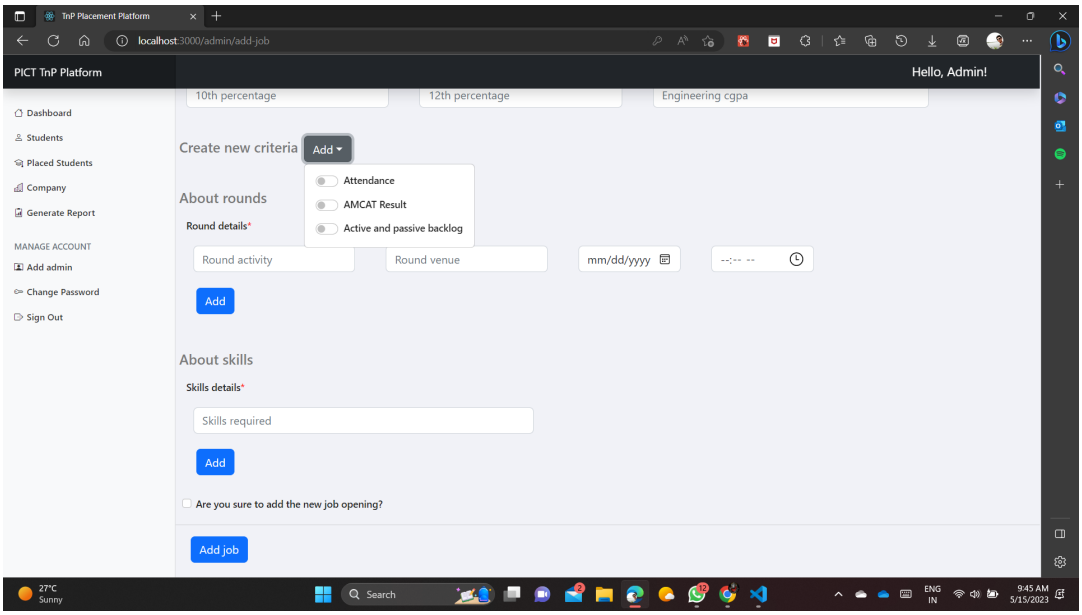
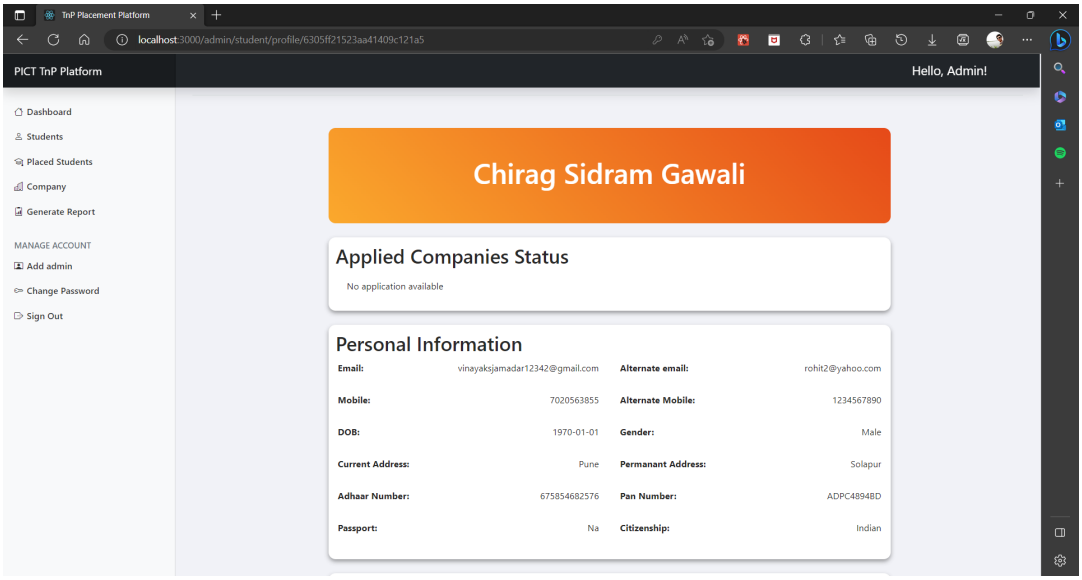
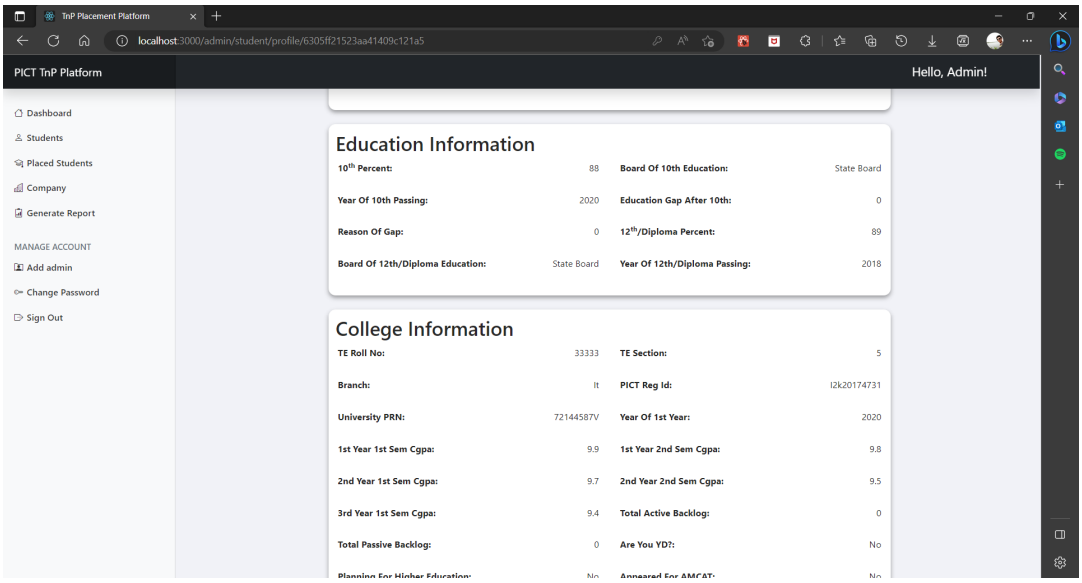
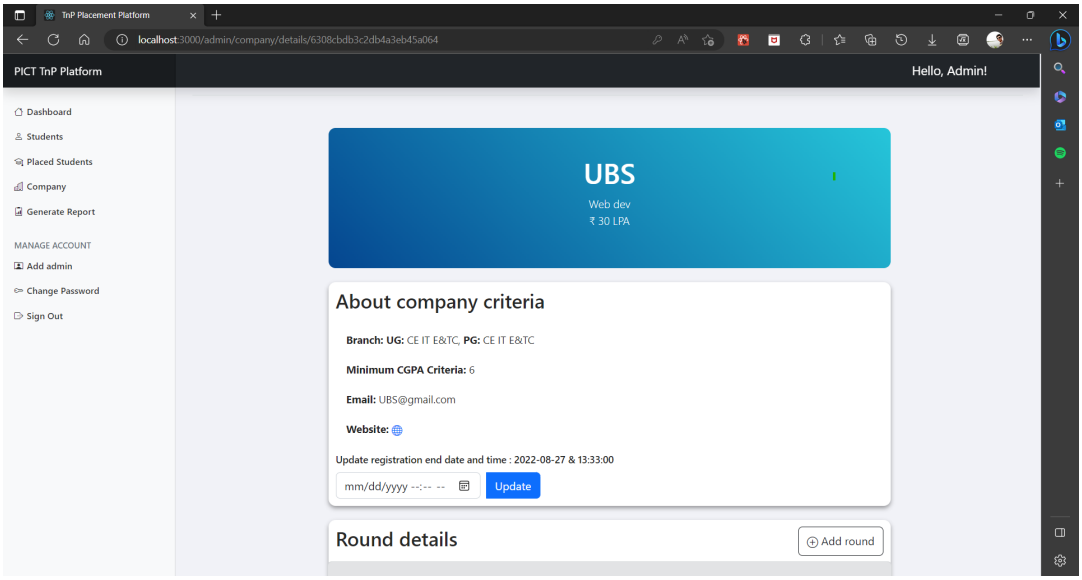

TnP Placement Platform
localhost:3000/admin/add-company
PICT TnP Platform
Hello, Admin!
Dashboard
Students
Placed Students
Company
Generate Report
MANAGE ACCOUNT
Add admin
Change Password
Sign Out
Fill the company details
* All fields are mandatory
About company
Company name*
Company Email*
Company name
Company email address
Company website url*
Company url address
Company address*
Add company

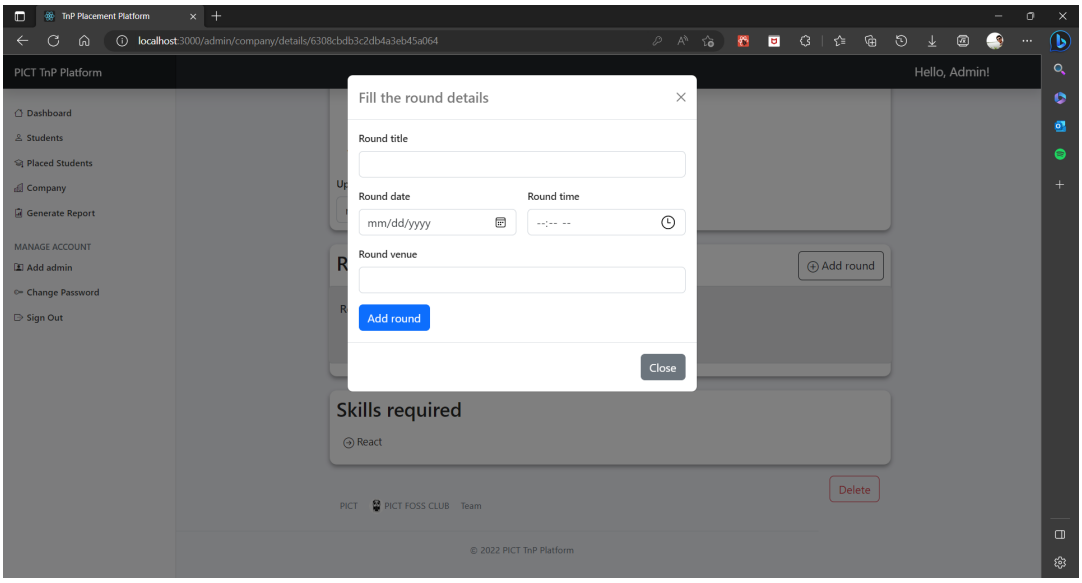

TnP Placement Platform
localhost:3000/admin/add-job
PICT TnP Platform
Hello, Admin!
Dashboard
Students
Placed Students
Company
Generate Report
MANAGE ACCOUNT
Add admin
Change Password
Sign Out
Phonepe - Add new job opening
* All fields are mandatory
About profile
Profile/Job description details*
Job description
CTC in LPA
Upload pdf of company details*
Choose File
No file chosen
Registration end date and time*
mm/dd/yyyy --:-- --
About criteria
UG Branch*
Computer Engineering
Infomation Technology
E&TC
PG Branch*
Computer Engineering
Infomation Technology
E&TC
Gender*
Male
Female
Both
10th percentage*
10th percentage
12th/Diploma percentage*
12th percentage
Engineering Cgpa*
Engineering cgpa

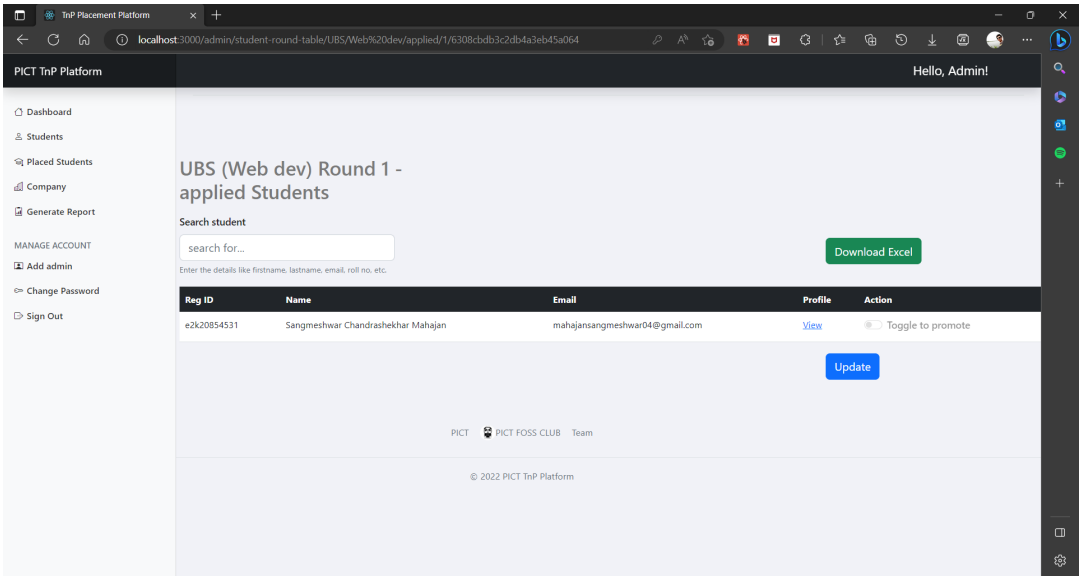

TnP Placement Platform
localhost:3000/admin/add-job
PICT TnP Platform
Hello, Admin!
10th percentage
12th percentage
Engineering cgpa
Create new criteria
Add
Attendance
AMCAT Result
Active and passive backlog
About rounds
Round details*
Round activity
Round venue
mm/dd/yyyy
--:-- --
Add
About skills
Skills details*
Skills required
Add
Are you sure to add the new job opening?
Add job

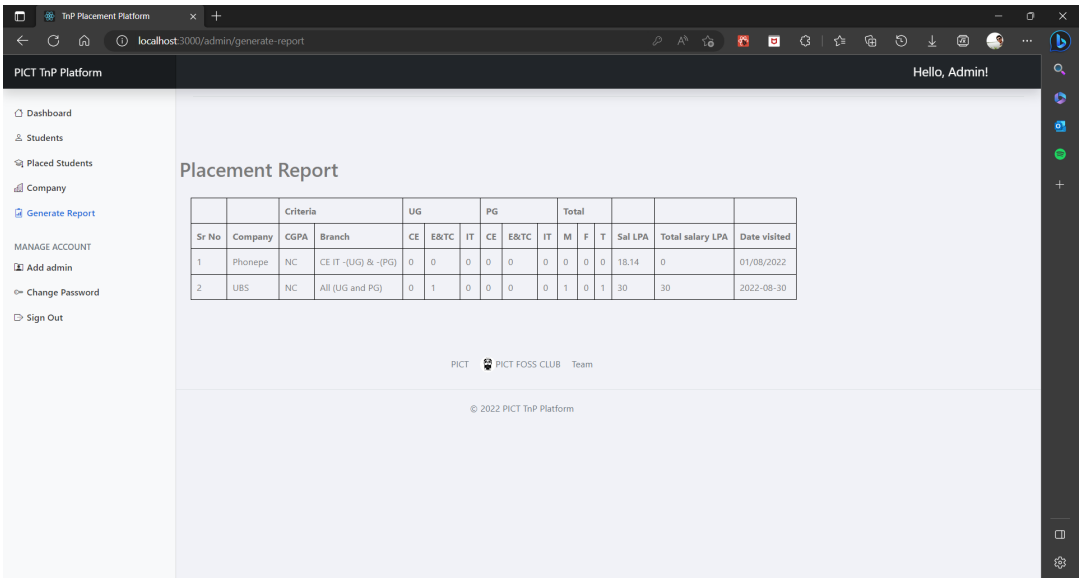

TnP Placement Platform
localhost:3000/admin/student/profile/6305ff21523aa41409c121a5
PICT TnP Platform
Hello, Admin!
Dashboard
Students
Placed Students
Company
Generate Report
MANAGE ACCOUNT
Add admin
Change Password
Sign Out
Chirag Sidram Gawali
Applied Companies Status
No application available
Personal Information
Email: vinayaksjamadar12342@gmail.com
Alternate email: rohit2@yahoo.com
Mobile: 7020563855
Alternate Mobile: 1234567890
DOB: 1970-01-01
Gender: Male
Current Address: Pune
Permanant Address: Solapur
Adhaar Number: 675854682576
Pan Number: ADPC4894BD
Passport: Na
Citizenship: Indian


TnP Placement Platform
localhost:3000/admin/student/profile/6305ff21523aa41409c121a5
PICT TnP Platform
Hello, Admin!
Dashboard
Students
Placed Students
Company
Generate Report
MANAGE ACCOUNT
Add admin
Change Password
Sign Out
Education Information
10th Percent: 88
Board Of 10th Education: State Board
Year Of 10th Passing: 2020
Education Gap After 10th: 0
Reason Of Gap: 0
12th/Diploma Percent: 89
Board Of 12th/Diploma Education: State Board
Year Of 12th/Diploma Passing: 2018
College Information
TE Roll No: 33333
TE Section: 5
Branch: It
PICT Reg Id: I2k20174731
University PRN: 72144587V
Year Of 1st Year: 2020
1st Year 1st Sem Cgpa: 9.9
1st Year 2nd Sem Cgpa: 9.8
2nd Year 1st Sem Cgpa: 9.7
2nd Year 2nd Sem Cgpa: 9.5
3rd Year 1st Sem Cgpa: 9.4
Total Active Backlog: 0
Total Passive Backlog: 0
Are You YD?: No

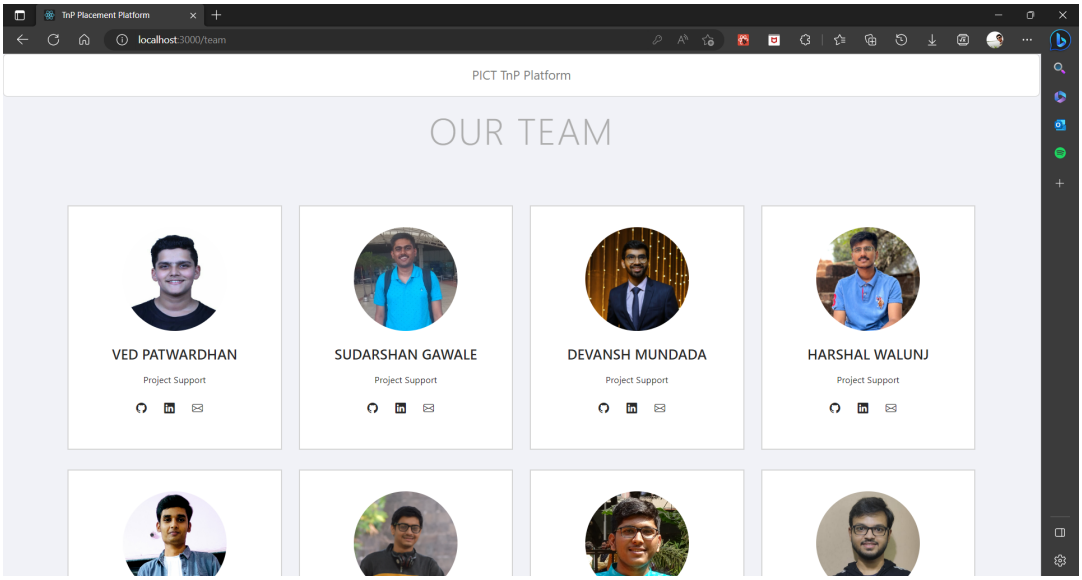

TnP Placement Platform
localhost:3000/admin/company/details/6308cbdb3c2db4a3eb45a064
PICT TnP Platform
Hello, Admin!
Dashboard
Students
Placed Students
Company
Generate Report
MANAGE ACCOUNT
Add admin
Change Password
Sign Out
UBS
Web dev
₹ 30 LPA
About company criteria
Branch: UG: CE IT E&TC, PG: CE IT E&TC
Minimum CGPA Criteria: 6
Email: UBS@gmail.com
Website:
Update registration end date and time : 2022-08-27 & 13:33:00
mm/dd/yyyy --:-- --
Update
Round details
Add round

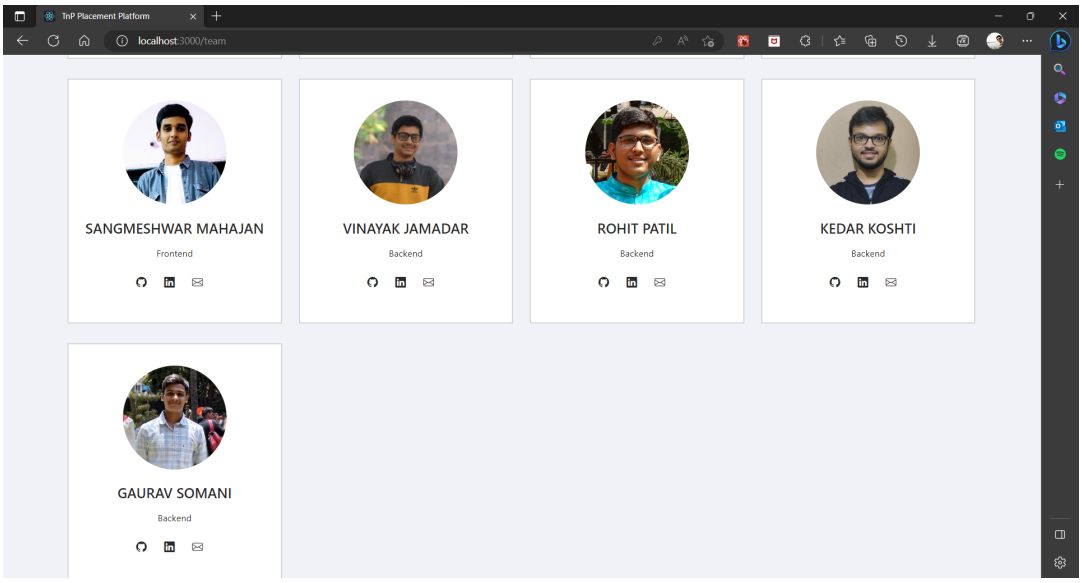

TnP Placement Platform
localhost:3000/admin/company/details/6308cbdb3c2db4a3eb45a064
PICT TnP Platform
Hello, Admin!
Dashboard
Students
Placed Students
Company
Generate Report
MANAGE ACCOUNT
Add admin
Change Password
Sign Out
Fill the round details
Round title
Round date
Round time
mm/dd/yyyy
--:-- --
Round venue
Add round
Close
Add round
Skills required
React
Delete
PICT
PICT FOSS CLUB
Team
© 2022 PICT TnP Platform





		Criteria		UG			PG			Total					
Sr No	Company	CGPA	Branch	CE	E&TC	IT	CE	E&TC	IT	M	F	T	Sal LPA	Total salary LPA	Date visited
1	Phonepe	NC	CE IT -(UG) & -(PG)	0	0	0	0	0	0	0	0	0	18.14	0	01/08/2022
2	UBS	NC	All (UG and PG)	0	1	0	0	0	0	1	0	1	30	30	2022-08-30


TnP Placement Platform
localhost:3000/team
PICT TnP Platform
OUR TEAM
VED PATWARDHAN
Project Support
SUDARSHAN GAWALE
Project Support
DEVANSH MUNDADA
Project Support
HARSHAL WALUNJ
Project Support


TnP Placement Platform
localhost:3000/team
SANGMESHWAR MAHAJAN
Frontend
VINAYAK JAMADAR
Backend
ROHIT PATIL
Backend
KEDAR KOSHTI
Backend
GAURAV SOMANI
Backend

9 Any achievement (Job opportunity, project sponsorship, patent, commercial product, research publications, pre-placement offers, a strong professional network etc.)

1. Gained practical experience in developing a MERN stack project, which involves a popular technology stack for building web applications.
2. Developed skills in frontend and backend development, using ReactJS and ExpressJS respectively.
3. Gained experience in working with a team, particularly in a FOSS community such as PICT FOSS Club.
4. Acquired skills in project management, including managing timelines, working collaboratively, and delivering high-quality results.
5. Built a portfolio of projects that can be showcased to potential employers or used as a starting point for future projects.
6. Developed problem-solving skills through identifying and addressing challenges in the project.
7. Gained knowledge and experience in software development best practices, such as testing, documentation, and version control.

Overall, completing an internship with PICT FOSS Club and developing a MERN stack project can provide a valuable learning experience for those interested in pursuing a career in software development or related fields. The specific achievements gained may vary depending on the individual's goals and aspirations.