

BHARATIYA VIDYA BHAVAN'S

SARDAR PATEL INSTITUTE OF TECHNOLOGY

Munshi nagar, Andheri (W) ,Mumbai - 400058

DEPARTMENT OF MASTER OF COMPUTER APPLICATION

CLASS: F.Y. MCA SEM: II

COURSE CODE: MC509 SUBJECT NAME: MOBILE PROGRAMMING LAB

ROLL NO./UCID: $\underline{2023510032}$ BATCH: \underline{B}

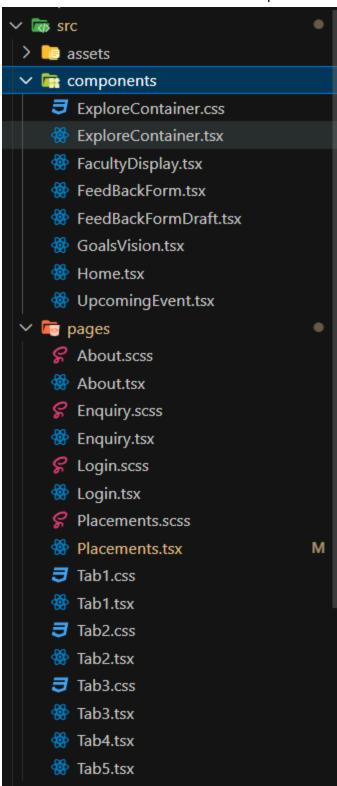
NAME: **Durgesh Dilip Mandge**

EXPERIMENT NO: 04

EXPERIMENT TITLE: To Create SPIT Website with side navigation

Tools Required: Ionic, VSCode

Files which are used for the application (.html, .scss, .ts etc): .js



Code

Placement.tsx

FacultyDisplay.tsx

```
import React from 'react';
import { IonContent, IonHeader, IonPage, IonTitle, IonToolbar,
IonList, IonItem, IonLabel, IonAvatar, IonCard, IonCardHeader,
IonCardTitle, IonCardSubtitle, IonCardContent } from '@ionic/react';
import "../style/Faculty.scss";
import Card from '../utilites/Card';
import AccordionWithImage from '../utilites/Accordion';
```

```
// Interface to define the shape of faculty member data
export interface FacultyMember {
 id: number;
 name: string;
 position: string;
 department: string;
 imageUrl: string;
 content: string;
 web: string;
const FacultyDisplay: React.FC = () => {
 // Sample faculty data
 const faculty: FacultyMember[] = [
    { id: 1, name: 'Kalbande', position: 'Professor', department:
'Computer Science', imageUrl:
'https://cse.spit.ac.in/assets/faculty/dr-dhananjay-kalbande.jpg',
content: "Research work Title : Skin Image Analysis Software to
recognize skin diseases:- A clinical study to recognize skin diseases
at the early stage.Principal Investigator and Guide: Dr.Uday
Khopkar, Professor & Head, Dept.of Dermatology, Seth G.S. Medical College
and KEM Hospital.Co-Investigators : Dr.Dhananjay Kalbande,Dr.Mithali
JageResults of the Investigation are approved from Institutional
Ethics Committee(IEC Committee) ,Seth G.S.Medical College & KEM
Hospital.Status : Completed"
,web:"https://cse.spit.ac.in/#/faculty/dr-dhananjay-kalbande"},
    { id: 4, name: 'Pooja Raundale', position: 'Professor',
department: 'MCA', imageUrl:
'https://mca.spit.ac.in/wp-content/uploads/2022/12/PR-e1670491866552.j
```

```
pg', content: "Education PH.D. (Comp. Sci. & Tech) SNDT Women's
University M.SC. (Computer Sci.)-UDCS North Maharashtra University
B.Sc.(Comp Sci) North Maharashtra University",
web:"https://mca.spit.ac.in/index.php/pooja-raundale/"},
    { id: 2, name: 'Pallavi Thakur', position: 'Professor',
department: 'MCA', imageUrl:
'https://mca.spit.ac.in/wp-content/uploads/2022/12/PT-150x150.png',
content: "Education M.E. IT B.E. IT Roles and Responsibilities
Time Table Co-ordinator SWC Co-oridnator Miniproject
Co-oridnator Feedback Co-oridnator",
web:"https://mca.spit.ac.in/index.php/pallavi-thakur/"},
    { id: 3, name: 'Harshil Kanakia', position: 'Assistant Professor',
department: 'MCA', imageUrl:
'https://mca.spit.ac.in/wp-content/uploads/2022/12/HK.png', content:
"Education Executive PG in Data Science (IIIT Bangalore) M. E.
Comps (SPIT) B. E. Comps (SPIT)",
web:"https://mca.spit.ac.in/index.php/prof-harshil-kanakia/"},
    { id: 3, name: 'Nikhita Mangaonkar', position: 'Assistant
Professor', department: 'MCA', imageUrl:
'https://mca.spit.ac.in/wp-content/uploads/2022/12/NM.jpg', content:
            M.C.A B.C.A", web:
"Education
"https://mca.spit.ac.in/index.php/nikhita-mangaonkar/"},
    { id: 3, name: 'Aarti Karande', position: 'Professor', department:
'MCA', imageUrl:
'https://mca.spit.ac.in/wp-content/uploads/2022/12/aarti.png',
content: "Education Ph.D (Computer engineering from S.P.I.T.)
M. Tech (Computer Engineering from VJTI) B.E. (Computer Engineering
from SAKEC)", web:"https://mca.spit.ac.in/index.php/aarti-karande/" },
 1;
```

```
import React, { useState } from 'react';
import { IonItem, IonLabel, IonInput, IonTextarea, IonButton,
IonAlert, IonRange } from '@ionic/react';
import '../style/FeedBack.scss'
const FeedbackForm: React.FC = () => {
 const [name, setName] = useState<string>('');
 const [email, setEmail] = useState<string>('');
 const [feedback, setFeedback] = useState<string>('');
 const [suggestion, setSuggestion] = useState<string>('');
 const [rating, setRating] = useState<number>(0);
 const [showAlert, setShowAlert] = useState<boolean>(false);
 const [formValid, setFormValid] = useState<boolean>(false);
 const handleFormSubmit = (e: React.FormEvent<HTMLFormElement>) => {
   e.preventDefault();
   // Basic email format validation
   if (!validateEmail(email)) {
     alert("Please enter a valid email address.");
```

```
return;
   }
   // You can implement your logic to handle the form submission here
   console.log('Name:', name);
   console.log('Email:', email);
   console.log('Feedback:', feedback);
   console.log('Suggestion:', suggestion);
   console.log('Rating:', rating);
   // Reset the form fields after submission
   setName('');
   setEmail('');
   setFeedback('');
   setSuggestion('');
   setRating(0);
   setShowAlert(true);
 };
 // Function to validate email format
 const validateEmail = (email: string): boolean => {
  // Simple regex for email validation
   const regex = /\S+@\S+\.\S+/;
   return regex.test(email);
 };
 // Function to check if all required fields are filled
 const checkFormValidity = () => {
   return name.trim() !== '' && email.trim() !== '' &&
feedback.trim() !== '';
 };
```

```
// Function to handle changes in form fields
const handleInputChange = (e: any) => {
 const { name, value } = e.target;
  if (name === 'name') setName(value);
 if (name === 'email') setEmail(value);
  if (name === 'feedback') setFeedback(value);
  if (name === 'suggestion') setSuggestion(value);
 setFormValid(checkFormValidity());
};
// Function to handle rating change
const handleRatingChange = (e: any) => {
  setRating(parseInt(e.target.value, 10));
};
return (
 <div className="feedback-form">
    <form onSubmit={handleFormSubmit}>
     <IonItem>
        <IonLabel position="floating">Name</IonLabel>
        <IonInput</pre>
          type="text"
          name="name"
          value={name}
          onIonChange={handleInputChange}
          required
      </IonItem>
```

```
<IonItem>
 <IonLabel position="floating">Email</IonLabel>
  <IonInput
   type="email"
   name="email"
   value={email}
   onIonChange={handleInputChange}
   required
<IonItem>
 <IonLabel position="floating">Feedback</IonLabel>
 <IonTextarea
   name="feedback"
   value={feedback}
   onIonChange={handleInputChange}
   required
<IonItem>
  <IonLabel>Rating: {rating}</IonLabel>
 <IonRange
   min={0}
   max={5}
   step={1}
   snaps={true}
   value={rating}
   onIonChange={handleRatingChange}
```

```
<IonItem>
          <IonLabel position="floating">Suggestion</IonLabel>
          <IonTextarea
            name="suggestion"
            value={suggestion}
            onIonChange={handleInputChange}
       </IonItem>
        <IonButton type="submit" expand="block"</pre>
disabled={!formValid}>Submit Feedback</IonButton>
     </form>
     <IonAlert
       isOpen={showAlert}
       onDidDismiss={() => setShowAlert(false)}
       header={'Feedback Submitted'}
       message={'Thank you for your feedback!'}
       buttons={['OK']}
   </div>
};
export default FeedbackForm;
```

```
// FeedbackForm.tsx
import "../style/FeedBack.scss"
import React, { useState } from 'react';
import { IonItem, IonLabel, IonInput, IonTextarea, IonButton, IonAlert
} from '@ionic/react';
```

```
const FeedbackForm: React.FC = () => {
 const [name, setName] = useState<string>('');
 const [email, setEmail] = useState<string>('');
 const [feedback, setFeedback] = useState<string>('');
 const [suggestion, setSuggestion] = useState<string>('');
 const [showAlert, setShowAlert] = useState<boolean>(false);
 const [formValid, setFormValid] = useState<boolean>(false);
 const handleFormSubmit = (e: React.FormEvent<HTMLFormElement>) => {
   e.preventDefault();
   // Basic email format validation
   if (!validateEmail(email)) {
     alert("Please enter a valid email address.");
     return;
   // Reset the form fields after submission
   setName('');
   setEmail('');
   setFeedback('');
   setSuggestion('');
   setShowAlert(true);
 };
 // Function to validate email format
 const validateEmail = (email: string): boolean => {
   // Simple regex for email validation
   const regex = /\S+@\S+\.\S+/;
   return regex.test(email);
 };
```

```
// Function to check if all required fields are filled
 const checkFormValidity = () => {
   return name.trim() !== '' && email.trim() !== '' &&
feedback.trim() !== '';
 };
 // Function to handle changes in form fields
 const handleInputChange = (e: any) => {
   const { name, value } = e.target;
   if (name === 'name') setName(value);
   if (name === 'email') setEmail(value);
   if (name === 'feedback') setFeedback(value);
   if (name === 'suggestion') setSuggestion(value);
   setFormValid(checkFormValidity());
 };
 return (
   <div className="feedback-form" style={{ backgroundImage:</pre>
"https://images.unsplash.com/photo-1541339907198-e08756dedf3f?q=80&w=2
070&auto=format&fit=crop&ixlib=rb-4.0.3&ixid=M3wxMjA3fDB8MHxwaG90by1wY
WdlfHx8fGVufDB8fHx8fA%3D%3D" }}>
     <form onSubmit={handleFormSubmit}>
       <IonItem>
          <IonLabel position="floating">Name</IonLabel>
         <IonInput
            type="text"
           name="name"
           value={name}
            onIonChange={handleInputChange}
```

```
required
</IonItem>
<IonItem>
  <IonLabel position="floating">Email</IonLabel>
 <IonInput
   type="email"
   name="email"
   value={email}
   onIonChange={handleInputChange}
   required
<IonItem>
 <IonLabel position="floating">Feedback</IonLabel>
 <IonTextarea
   name="feedback"
   value={feedback}
   onIonChange={handleInputChange}
   required
</IonItem>
<IonItem>
 <IonLabel position="floating">Suggestion</IonLabel>
 <IonTextarea</pre>
   name="suggestion"
   value={suggestion}
   onIonChange={handleInputChange}
</IonItem>
```

```
import '../style/Home.scss';
import React from 'react';
import { IonContent, IonFooter, IonHeader, IonTitle, IonToolbar,
IonMenu, IonMenuToggle, IonList, IonItem, IonIcon, IonLabel } from
'@ionic/react';
import { IonButtons, IonMenuButton, IonPage } from '@ionic/react';
import HorizontallyScrollableComponent from '../utilites/Scroller';
import TabItems from '../TabItems';
function Home() {
 return (
     <IonMenu contentId="main-content">
       <IonHeader>
         <IonToolbar>
            <IonTitle>Menu Content</IonTitle>
         </IonToolbar>
       </IonHeader>
       <IonContent className="ion-padding">
          <IonList>
           <IonItem routerLink="/login">
              <IonLabel>Login/Register</IonLabel>
           </IonItem>
           <IonItem routerLink="/placement">
              <IonLabel>Placements/IonLabel>
            </IonItem>
            <IonItem routerLink="/enquiry">
              <IonLabel>Enquiry</IonLabel>
            </IonItem>
```

```
<IonItem routerLink="/about">
             <IonLabel>About</IonLabel>
           </IonList>
       </IonContent>
     </IonMenu>
     <IonPage id="main-content">
       <IonHeader>
         <IonToolbar>
           <IonButtons slot="start">
             <IonMenuButton></IonMenuButton>
           </IonButtons>
           <IonTitle className='Title'>Sardar Patel Institute of
Technology</IonTitle>
         </IonToolbar>
       </IonHeader>
       <IonContent fullscreen={true} className='centre'>
         <IonHeader collapse="condense">
           <IonToolbar>
             <IonTitle size="large">S.P.I.T.</IonTitle>
           </IonToolbar>
         </IonHeader>
         <div className="ion-padding">
           <h2 className='h2Style'>Learn to excel</h2>
             alt="Principal's Message"
```

```
src="https://i.ytimg.com/vi/uGcEHgtnu7A/maxresdefault.jpg"
           />
           <div className='divStyle'>
             <h2 className='h2Style'>Our College's Vision:</h2>
             At <strong>S.P.I.T</strong>, our
vision is to foster a dynamic learning environment that empowers
students to become global leaders, critical thinkers, and
compassionate contributors to society.
          </div>
           <HorizontallyScrollableComponent/>
           <h2 className='h2Style'>College Campus</h2>
           <img
            alt="College Campus"
src="https://www.campusoption.com/images/colleges/gallery/24 11 17 110
206 College.jpg"
           />
           <h4 className='h2Style'>Main Building</h4>
       {/* ----- Horizontally
 11
Scrollabe---- */}
           <div className="horizontally-scrollable">
            <div className="scroll-container">
              <div className='inline'>
```

```
<img
                    className='scrolImg block'
                    alt="College Campus"
src="https://images.shiksha.com/mediadata/images/1551435170phptmId73.p
ng"
                  />
                  <h2 className='h2Style'>Class Rooms</h2>
                </div>
                <div className='inline'>
                  <img
                    className='scrolImg block'
                    alt="College Campus"
src="https://encrypted-tbn0.gstatic.com/images?q=tbn:ANd9GcQoIFnbLbCcz
-Hsd5RTKpeb6MpmMKxeQ3FFRyhrdy5I73Uu8s 6X0 etVY88iWB8aD3hC8&usqp=CAU"
                  <h2 className='h2Style'>Conference</h2>
                </div>
                <div className='inline'>
                  <img
                    className='scrolImg block'
                    alt="College Campus"
src="https://mca.spit.ac.in/wp-content/uploads/2022/12/20221212 115651
-min-1536x1152.jpg"
                  <h2 className='h2Style'>Computer Labs</h2>
                </div>
              </div>
```

```
// UpcomingEvents.tsx
import { image } from "ionicons/icons";
import "../style/UpcomingEvent.scss"
import React from 'react';
const UpcomingEvent: React.FC = () => {
 // Dummy data for upcoming events
 const upcomingEvents = [
    { id: 1, title: 'Carnival', date: '2024-02-10', location: 'IIT
Bombay', imgSrc:
'https://firebasestorage.googleapis.com/v0/b/oculus-2023.appspot.com/o
events%2Fposters%2Fcarnival Card.png?alt=media&token=49e974db-3303-43/
73-b151-196ca6239490',
link:"https://oculus.spit.ac.in/events/carnival" },
    { id: 2, title: 'IPL Auction', date: '2024-02-15', location:
'Bhavan\'s Campus', imgSrc:
https://firebasestorage.googleapis.com/v0/b/oculus-2023.appspot.com/o
```

```
/events%2Fposters%2FIpl Card.png?alt=media&token=7d4a2e7d-d829-4c6e-9c
96-64aa07f08d52', link:"https://oculus.spit.ac.in/events/ipl" },
   { id: 3, title: 'Sargam', date: '2024-02-20', location: 'Bhavan\'s
Campus', imgSrc:
'https://firebasestorage.googleapis.com/v0/b/oculus-2023.appspot.com/o
events%2Fposters%2F0culus Sargam%20Card.png?alt=media&token=21e571f4-
d7b3-4c4d-bfc1-539eac97ac7c' ,
link:"https://oculus.spit.ac.in/events/sargam"},
 ];
 return (
   <div className="upcoming-events">
     <h2 className="title">Upcoming Events</h2>
     {upcomingEvents.map(event => (
      <div className="event" key={event.id}>
        <div className="event-info">
          < div>
            <a href={event.link} className="linkStyle"</pre>
Date: {event.date}
            Location:
{event.location}
          </div>
          <img className="event-image" src={event.imgSrc}</pre>
alt="event" />
        </div>
      </div>
     ) ) }
   </div>
```

```
};
export default UpcomingEvent;
```

```
import React from 'react';
import { IonContent, IonHeader, IonPage, IonTitle, IonToolbar,
IonCard, IonCardHeader, IonCardSubtitle, IonCardTitle, IonCardContent
} from '@ionic/react';
import './About.scss'; // Import SCSS file for styles
const About: React.FC = () => {
 return (
   <IonPage>
     <IonHeader>
       <IonToolbar color="primary">
          <IonTitle>About Us</IonTitle>
       </IonToolbar>
     </IonHeader>
     <IonContent>
       <div className="about-container">
         <IonCard>
            <IonCardHeader>
              <IonCardSubtitle>Welcome to</IonCardSubtitle>
              <IonCardTitle>Sardar Patel Institute of
Technology</IonCardTitle>
            </IonCardHeader>
            <IonCardContent>
              Sardar Patel Institute of Technology (SPIT),
established in 2005, is one of the leading engineering colleges in
```

```
India.
             Located in Mumbai, Maharashtra, SPIT offers
undergraduate and postgraduate programs in various disciplines
including Computer Engineering, Electronics Engineering, Information
Technology, and more.
             Our mission is to provide quality education, foster
research and innovation, and develop skilled professionals who
contribute to society.
           </IonCardContent>
         </IonCard>
       </div>
     </IonContent>
   </IonPage>
 );
};
export default About;
```

```
import React, { useState } from 'react';
import { IonContent, IonInput, IonButton, IonToast, IonGrid, IonRow,
IonCol, IonPage } from '@ionic/react';
import './Enquiry.scss'; // Import SCSS file for styles

const Enquiry: React.FC = () => {
  const [name, setName] = useState<string>('');
  const [email, setEmail] = useState<string>('');
  const [message, setMessage] = useState<string>('');
  const [showToast, setShowToast] = useState<boolean>(false);

const handleEnquirySubmit = () => {
```

```
// Here you can add your enquiry submission logic
  // For demonstration purposes, let's just show a toast message
  setShowToast(true);
};
return (
  <IonPage>
    <IonContent className="enquiry-page">
      <IonGrid className="ion-padding">
        <IonRow className="ion-justify-content-center">
          <IonCol size="12" size-md="8" size-lg="6">
            <div className="form-container">
              <h2>Send Enquiry</h2>
              <form onSubmit={handleEnquirySubmit}>
                <IonInput</pre>
                  value={name}
                  placeholder="Your Name"
                  onIonChange={ (e: any) => setName (e.target.value) }
                  required
                />
                <IonInput
                  type="email"
                  value={email}
                  placeholder="Your Email"
                  onIonChange={(e: any) => setEmail(e.target.value)}
                  required
                />
                <IonInput
                  value={message}
                  placeholder="Your Message"
```

```
onIonChange={ (e: any) =>
setMessage(e.target.value)}
                    required
                  />
                  <IonButton type="submit"</pre>
expand="block">Submit</IonButton>
                </form>
              </div>
            </IonCol>
          </IonRow>
        </IonGrid>
        <IonToast
          isOpen={showToast}
          onDidDismiss={() => setShowToast(false)}
          message="Enquiry submitted successfully!"
          duration={2000}
      </IonContent>
   </IonPage>
};
export default Enquiry;
```

```
import React, { useState } from 'react';
import { IonContent, IonHeader, IonPage, IonTitle, IonToolbar,
IonInput, IonButton, IonToast, IonGrid, IonRow, IonCol } from
'@ionic/react';
import './Login.scss'; // Import SCSS file for styles
```

```
const Login: React.FC = () => {
 const [username, setUsername] = useState<string>('');
 const [password, setPassword] = useState<string>('');
 const [showToast, setShowToast] = useState<boolean>(false);
 const handleLogin = () => {
   // Here you can add your login logic
   // For demonstration purposes, let's just show a toast message
   setShowToast(true);
 };
 return (
   <IonPage>
     <IonHeader>
       <IonToolbar color="primary">
          <IonTitle>Login</IonTitle>
       </IonToolbar>
     </IonHeader>
     <IonContent>
        <div className="login-container">
          <IonGrid>
            <IonRow className="ion-align-items-center</pre>
ion-justify-content-center">
              <IonCol size="10" size-md="6" size-lg="4">
                <form className='input-container'>
                  <IonInput
                    value={username}
                    placeholder="Username"
                    onIonChange={ (e: any) =>
setUsername(e.target.value) }
```

```
clearInput
                    className="ion-margin-bottom"
                  />
                  <IonInput
                    type="password"
                    value={password}
                    placeholder="Password"
                    onIonChange={ (e: any) =>
setPassword(e.target.value)}
                    clearInput
                    className="ion-margin-bottom"
                  <IonButton expand="block"</pre>
onClick={handleLogin}>Login</IonButton>
                </form>
              </IonCol>
            </IonRow>
          </IonGrid>
        </div>
        <IonToast
          isOpen={showToast}
          onDidDismiss={() => setShowToast(false)}
          message="Login successful!"
          duration={2000}
      </IonContent>
   </IonPage>
 );
};
```

```
export default Login;
```

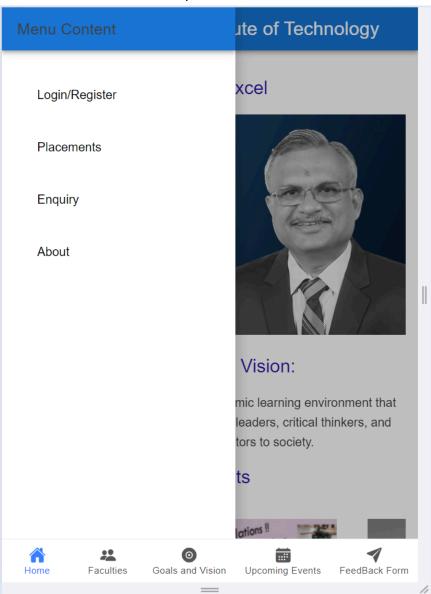
```
// PlacementsStats.tsx
import React, { useEffect, useState } from 'react';
import { IonPage, IonContent, IonCard, IonCardContent, IonCardHeader,
IonCardTitle, IonIcon, IonGrid, IonRow, IonCol } from '@ionic/react';
import { trophyOutline } from 'ionicons/icons';
import './Placements.scss'; // Import SCSS file for styles
const Placements: React.FC = () => {
 const [placementsData, setPlacementsData] = useState<any[]>([]); //
Assuming data structure
 useEffect(() => {
    const sampleData = [
      { year: '2021', placements: 150, mca: 40, extc: 40, cse: 70,
elite:23,superDream:20},
      { year: '2020', placements: 140 ,mca:40, extc:50, cse:60,
elite:23,superDream:20},
      { year: '2019', placements: 130, mca: 50, extc: 10, cse: 70,
elite:23,superDream:20},
     // Add more data as needed
    ];
    setPlacementsData(sampleData);
  }, []);
 return (
   <IonPage>
     <IonContent>
```

```
<div className="placements-page">
         <div className="placements-container">
           <IonCard>
             <IonCardHeader>
               <IonCardTitle>
                 <IonIcon icon={trophyOutline} /> Placements
Statistics
               </IonCardTitle>
             </IonCardHeader>
             <IonCardContent>
               <div className="placements-stats">
                 {placementsData.map((item, index) => (
                   <div key={index} className="placement-item">
                     <h1 >{item.year}</h1 >
                     {item.placements} Placements
                     MCA : {item.mca} Elites: {item.elite} ,
SuperDreams : {item.superDream}
                    EXTC : {item.extc}
                                                 SuperDream:
{item.superDream}
                     CSE : {item.cse}
                     <br />
                   </div>
                 ) ) }
               </div>
             </IonCardContent>
           </IonCard>
         </div>
       </div>
     </IonContent>
   </IonPage>
```

```
);
};
export default Placements;
```

Screenshot of the app made.

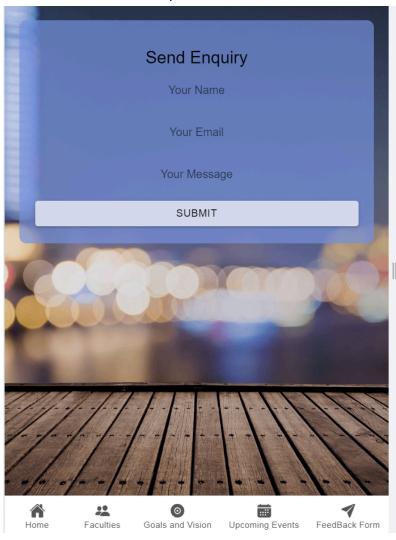
Experiment - 4



Experiment - 4



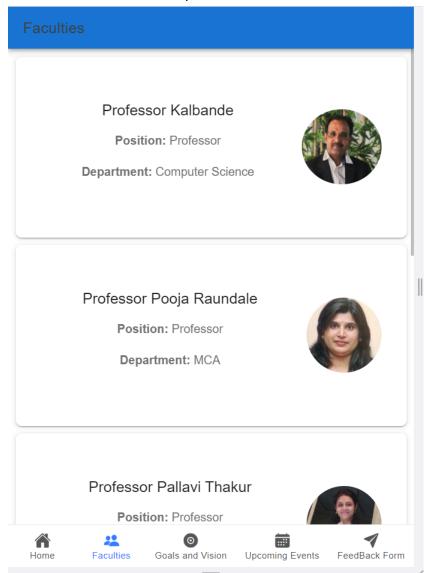
Experiment - 4



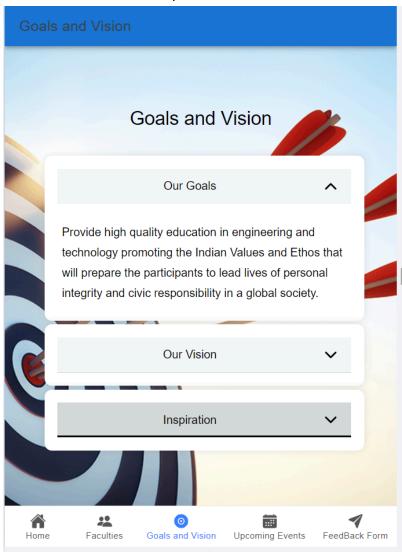
Experiment - 4



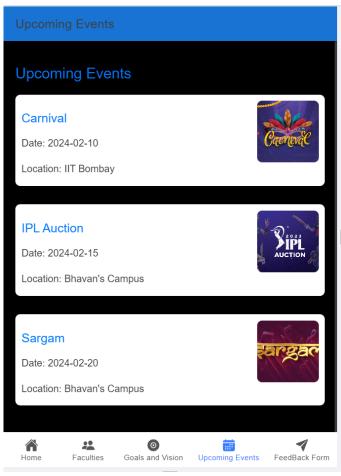
Experiment - 4



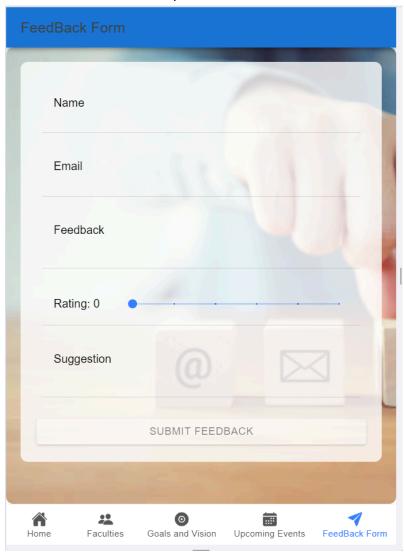
Experiment - 4



Experiment - 4



Experiment - 4



Answers to the questions specified in respective lab on Moodle:

a. How to merge Side Navigation and Tabs in one app?:

We can utilize Ionic's routing and navigation system along with Ionic components.

b. List down Good Features of Existing App.

The existing app is visually appealing and has support for parents login as well. It has different tabs for many announcemets like events, notices, amissionsa.etc.

c. List down the Drawbacks of Existing App.

The existing app lacks many features. The attendance and notification as coming soon. There are no important features like exams and results. About the college, its vision and mission are also not in app which is present in the website.

d. List down the Features you are including in your app for better improvement

I'm including the Enquiry feature and placements statistics as well as login page and about page.