International Journal of Advances in Engineering and Management (IJAEM)
Volume 4, Issue 6 June 2022, pp: 1843-1853 www.ijaem.net ISSN: 2395-5252

Live F2F Pair Programming Interview Web app

Rahul Ranjan

Submitted: 05-06-2022 Revised: 17-06-2022 Accepted: 20-06-2022

I. INTRODUCTION

In the face to face interview application project , the user first have to register and login to view all the details that have been provided by the application . User can see all the features that application contain. After login for better and easy access in comfortable environment.

This application is totally free and easy to handle as compare to other application.

Now a days most of the interview is conducted online mode. For CSE student its very difficult to write the code in online compiler because some time interviewers ask candidate to write the code in online compiler but in this application they can write the code in any language.

This application totally based on interviews purpose as per today demand .one more features we are added white board to discuss the problem and draw the structure.

1.1 **First Page**

In this page we have given registration and login page and add some symbol so that it can be more attractive. Candidate can able to access easy we have also provided help line sign and contact number so that if candidate face any problem like create or login they can directly contact costumer support team .

1.2 Part Of Module

In this project we have two different part first one is admin and second one is user .
For this project both module are important to conduct interviews .

1.3 Help Line No.

In this application we have added one more features which is very important for candidate that is help line no. . If any candidate face any problem in login or to create account they can contact customer support team for the help .

1.4 key Role

This application is easy to use as compare to other application its provided the candidate to write the code in any language . This application also provide white which can be used to solve the problem as well draw the structure.

II. ADMIN

In this part we have describe admin role in details in which admin can easy access it very easily . in this part what are things that admin can do that is mentioned below.

1.5 Create a Link

In first page there is option to create new meeting link . In this admin can create a new meeting any time and can share the link to candidate for the interview. By which candidate can join the interviews.

1.6 Invite Candidate

In this section there is option to share the meeting link through mails , whatsapp .
Admin can also copy the link and share to candidate.

1.7 Accept Candidate Request

In this part if admin give permission to candidate to enter into the meeting. In this case admin have to accept the candidate request other wise candidate can’t be enter without admin permission .

1.8 Create Poll

In the many of the interviews interviewers asking some question in group. For that they are asking individual candidate in this its taking lot of time .So that we have created one of the features create poll option so that candidate can give the answer in single time .which is best for both candidate as well as interviewers . in this method we can save the time easily.

1.9 Screen Sharing

In this section admin can share the screen by choosing the screen share option . If admin wants to ask question in group they easily share the screen and write the question using white board . there is also a option of writing code in which both candidate and interviewer can write the code in given languages .

1.10 Permission To Speak

In this section interviewers can ask question from candidate by un - muting them .
candidate cannot speak without permission of interviewers . admin can also block the mic of the candidate if they are misbehaving with interviewers .

1.11 End

In this last module if the meeting is over than candidate can end the meeting .
In this interviewers can also remove the candidate after taking the interviews .

III. USER

In this user module there is two option is there first one is to register for new user and second one is login for those candidate who are given the interviews earlier. they directly login by using user id password .
For new user they have to give basic details and create a password.

1.12 Registration Page

In this module user have to register if user are visiting first time in this application. User have to give basic details to login . In the registration process candidates have to give the name , email id and have to create password which is used in login time.

1.13 Forget Password

In this section if candidate forget there password than candidate can go to forget password option and reset the password by filling proper details .

1.14 Join Meeting

In this section candidate can join the meeting after clicking on share link.
After accepting the meeting by interviewers candidate can enter.

1.15 Speak And Write

In this page user can speak and ask query from interviewers . user can also write and draw the diagram if interviewers allow them to write .
If candidates wants to write code in any language they can write by choosing opting coding tools.

1.16 Use Codes

In interview process interviewers ask candidate to write a code so they can write the code in any language . we have added this feature most of application not containing code type of feature .

3.6 Ask Question

In this section user can ask question by unmuting or writing the message to chat section .

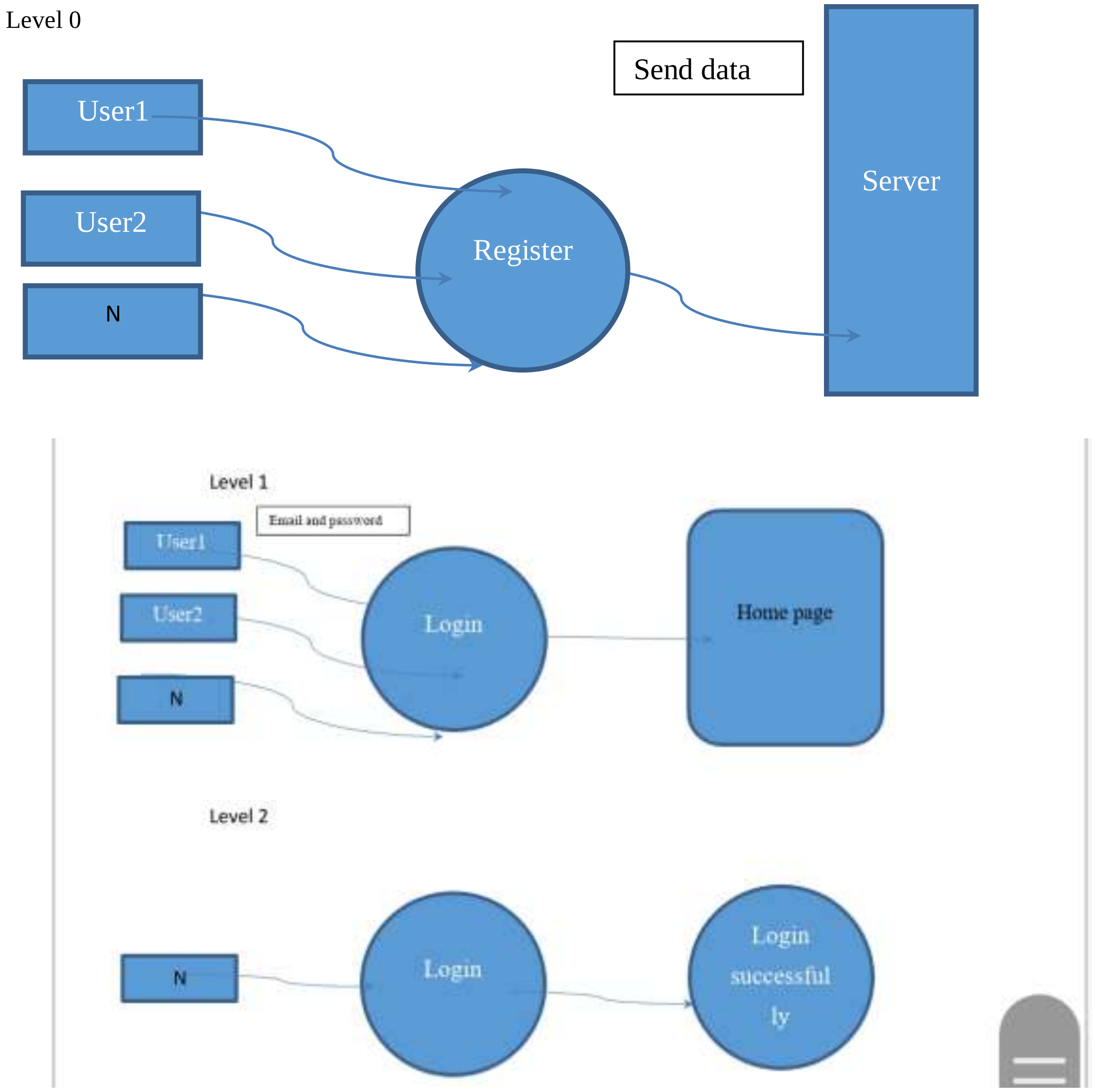
IV. SYSTEM NEEDS

In this phase is important to run the project in easy and smooth manner for that below tools are required.
OS - window , linux ,mac and other
Installed software should have node js , html and css
Date base mongodb
Documentation ms office

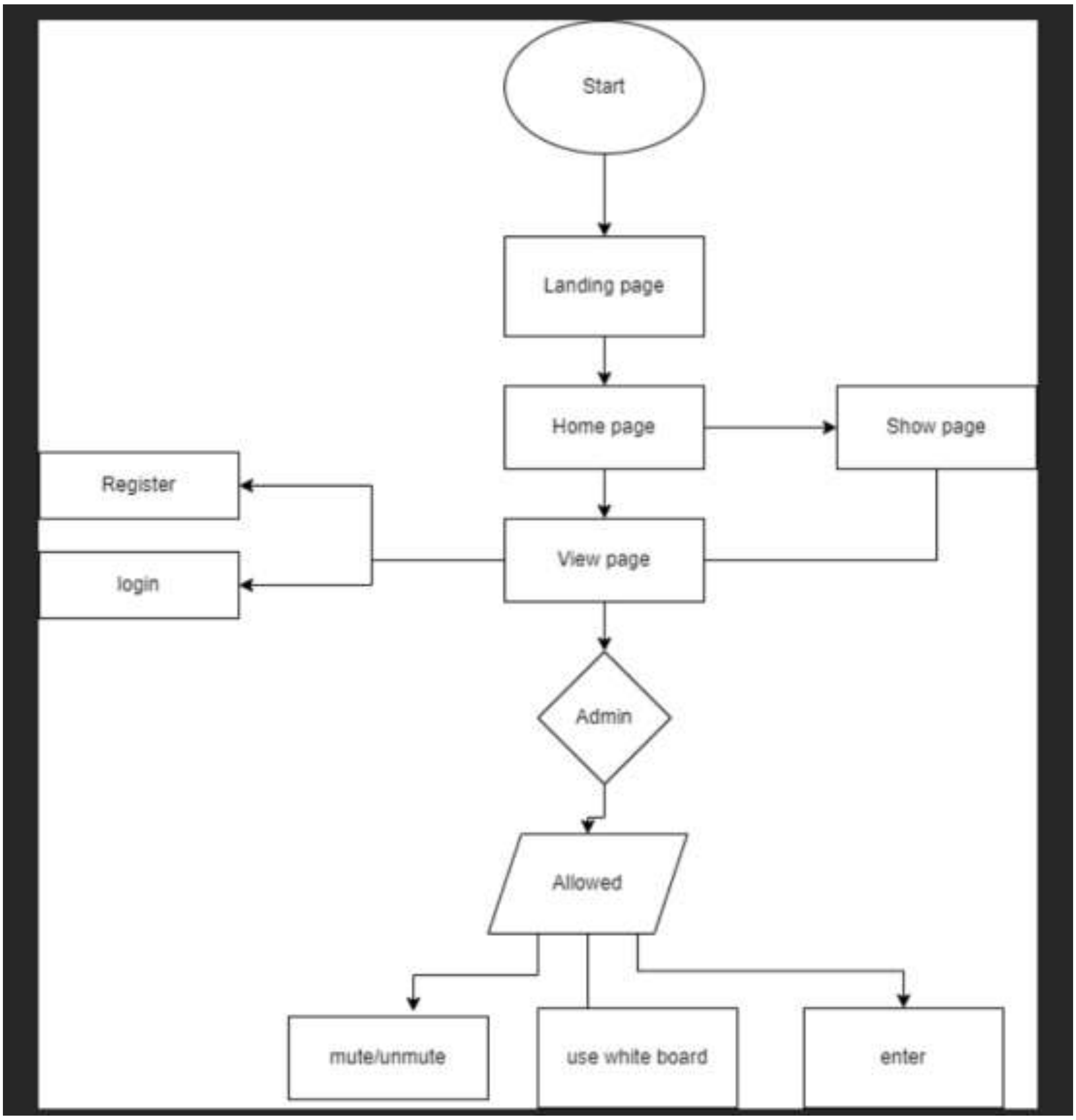
HARD REQUIREMENT

PROCESSER With the speed of 1.6 GHz
Ram minimum upto 4 Gb
Standard monitor
Standard mouse
Standard keyboard

V. DESIGN


Level 0
Send data
User1
User2
N
Register
Server
Level 1
Email and password
User1
User2
N
Login
Home page
Level 2
N
Login
Login
successful
ly

DFD

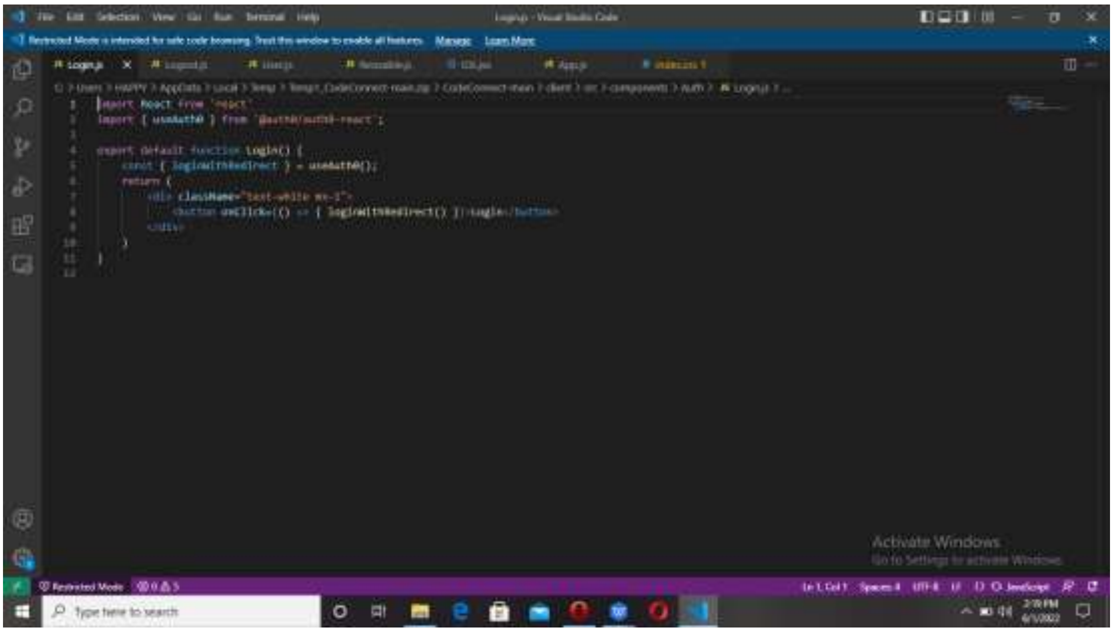


VI. TESTING

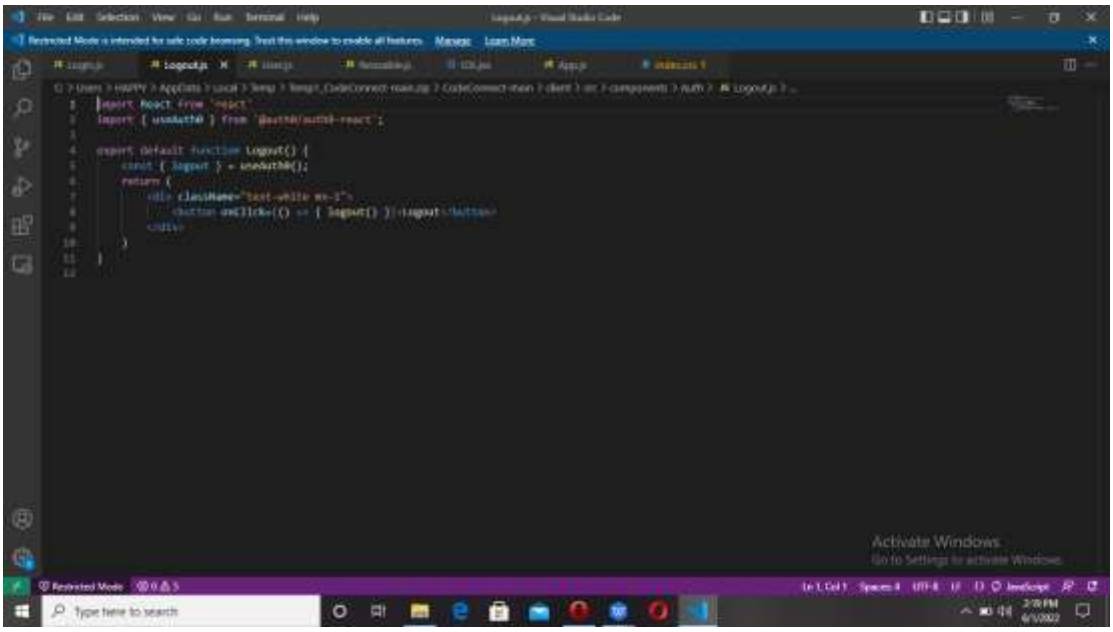
Testing phase is very important for successful running the project. In we can focus in investigating and discovering . in this shows that code and program work according to customer needs or not.

VII. CODES

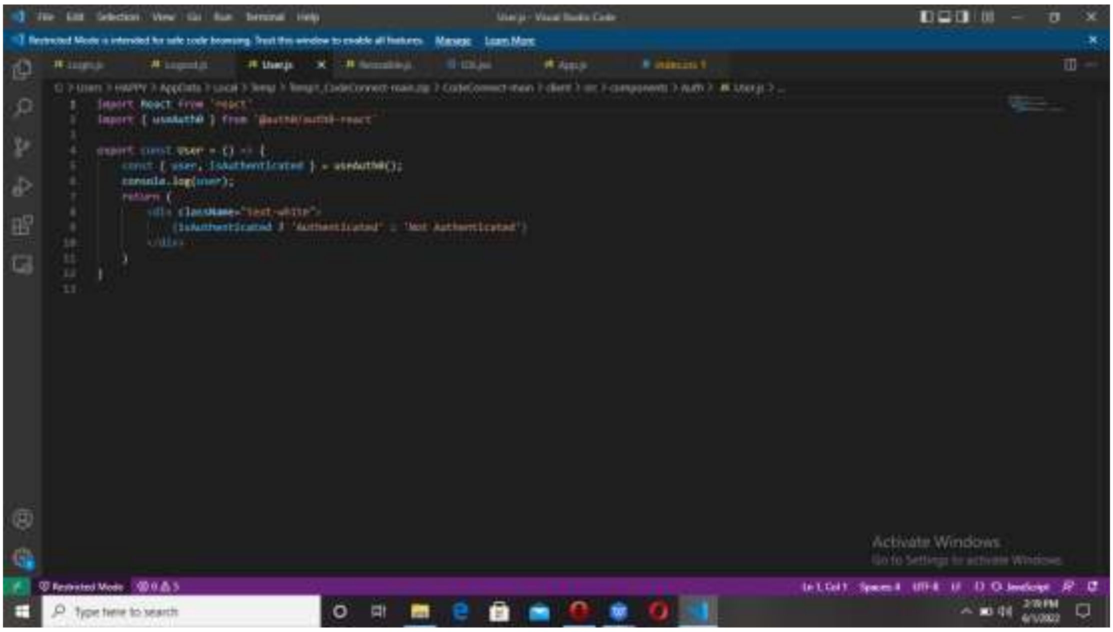
In the below all the code are mentioned from stating page



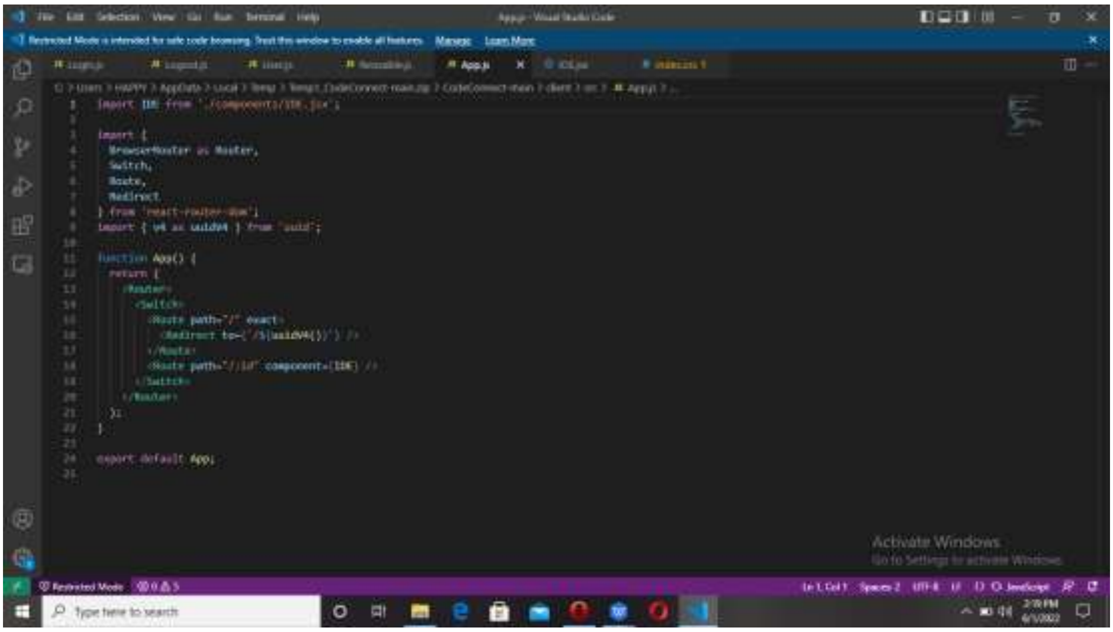
```
import React from 'react'
import { useAuth0 } from '@auth0/auth0-react';

export default function Login() {
    const { loginWithRedirect } = useAuth0();
    return (
        <div className="text-white mx-1">
            <button onClick={() => { loginWithRedirect() }}>Login</button>
        </div>
    )
}
```



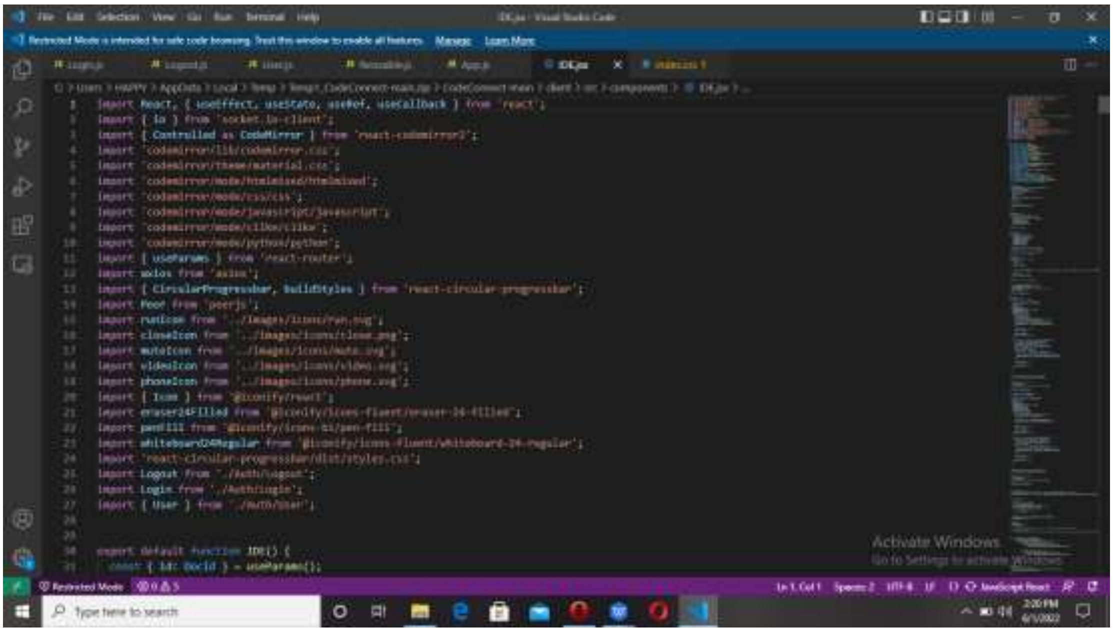
```
import React from 'react'
import { useAuth0 } from '@auth0/auth0-react';

export default function Logout() {
    const { logout } = useAuth0();
    return (
        <div className="text-white mx-1">
            <button onClick={() => { logout() }}>Logout</button>
        </div>
    )
}
```



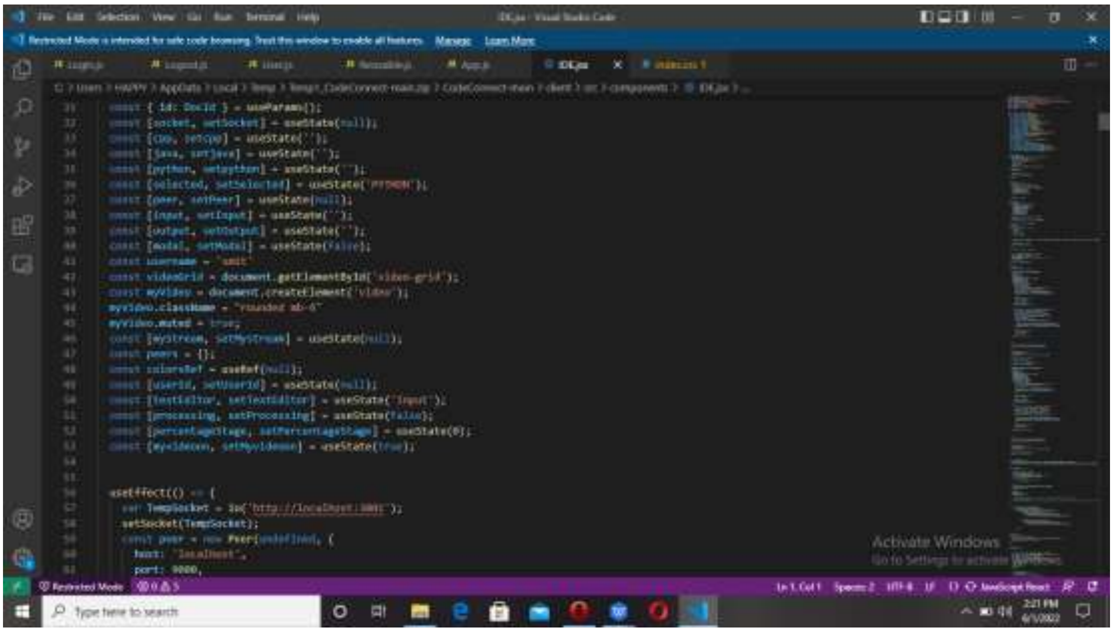
```
import React from 'react'
import { useAuth0 } from '@auth0/auth0-react'

export const User = () => {
    const { user, isAuthenticated } = useAuth0();
    console.log(user);
    return (
        <div className="text-white">
            {isAuthenticated ? 'Authenticated' : 'Not Authenticated'}
        </div>
    )
}
```



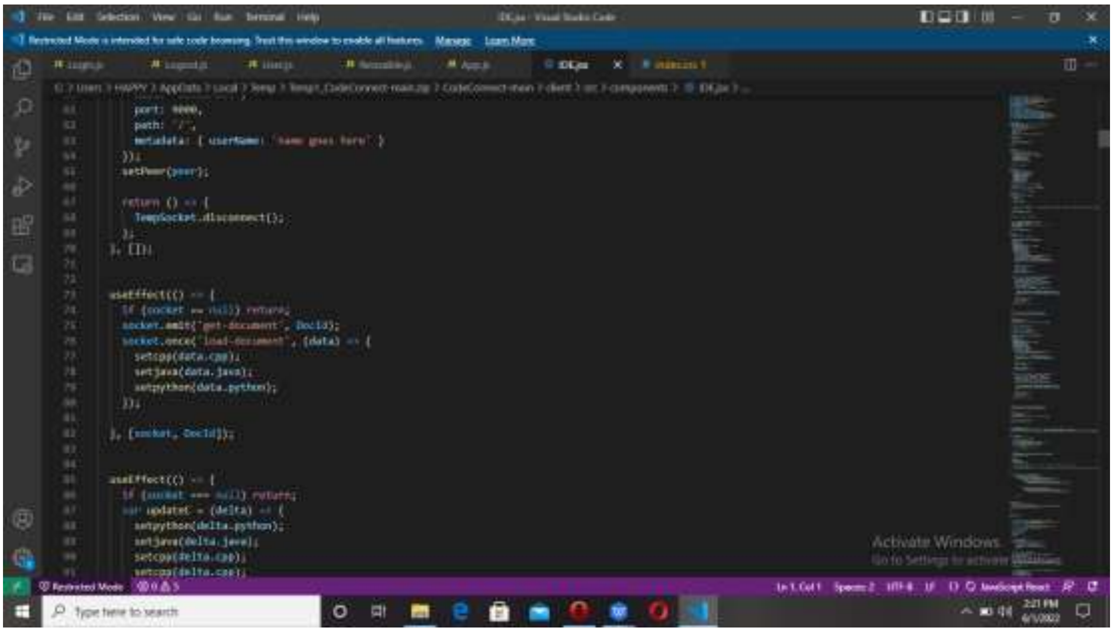
```
import IDE from './components/IDE.jsx';

import {
  BrowserRouter as Router,
  Switch,
  Route,
  Redirect
} from 'react-router-dom';
import { v4 as uuidV4 } from 'uuid';

function App() {
  return (
    <Router>
      <Switch>
        <Route path="/" exact>
          <Redirect to={`/${uuidV4()}`} />
        </Route>
        <Route path="/:id" component={IDE} />
      </Switch>
    </Router>
  );
}

export default App;
```


File Edit Selection View Go Run Terminal Help
IDE.js - Visual Studio Code
Restricted Mode is intended for safe code browsing. Trust this window to enable all features. Manage Learn More
Login.js Logout.js User.js Rerouttable.js App.js IDE.js index.css
Restricted Mode
Activate Windows
Go to Settings to activate Windows.
Type here to search
2:20 PM
6/1/2022

```
import React, { useEffect, useState, useRef, useCallback } from 'react';
import { io } from 'socket.io-client';
import { Controlled as CodeMirror } from 'react-codemirror2';
import 'codemirror/lib/codemirror.css';
import 'codemirror/theme/material.css';
import 'codemirror/mode/htmlmixed/htmlmixed';
import 'codemirror/mode/css/css';
import 'codemirror/mode/javascript/javascript';
import 'codemirror/mode/clike/clike';
import 'codemirror/mode/python/python';
import { useParams } from 'react-router';
import axios from 'axios';
import { CircularProgressbar, buildStyles } from 'react-circular-progressbar';
import Peer from 'peerjs';
import runIcon from '../images/icons/run.svg';
import closeIcon from '../images/icons/close.png';
import muteIcon from '../images/icons/mute.svg';
import videoIcon from '../images/icons/video.svg';
import phoneIcon from '../images/icons/phone.svg';
import { Icon } from '@iconify/react';
import eraser24Filled from '@iconify/icons-fluent/eraser-24-filled';
import penFill from '@iconify/icons-bi/pen-fill';
import whiteboard24Regular from '@iconify/icons-fluent/whiteboard-24-regular';
import 'react-circular-progressbar/dist/styles.css';
import Logout from './Auth/Logout';
import Login from './Auth/Login';
import { User } from './Auth/User';


export default function IDE() {
  const { id: DocId } = useParams();
```

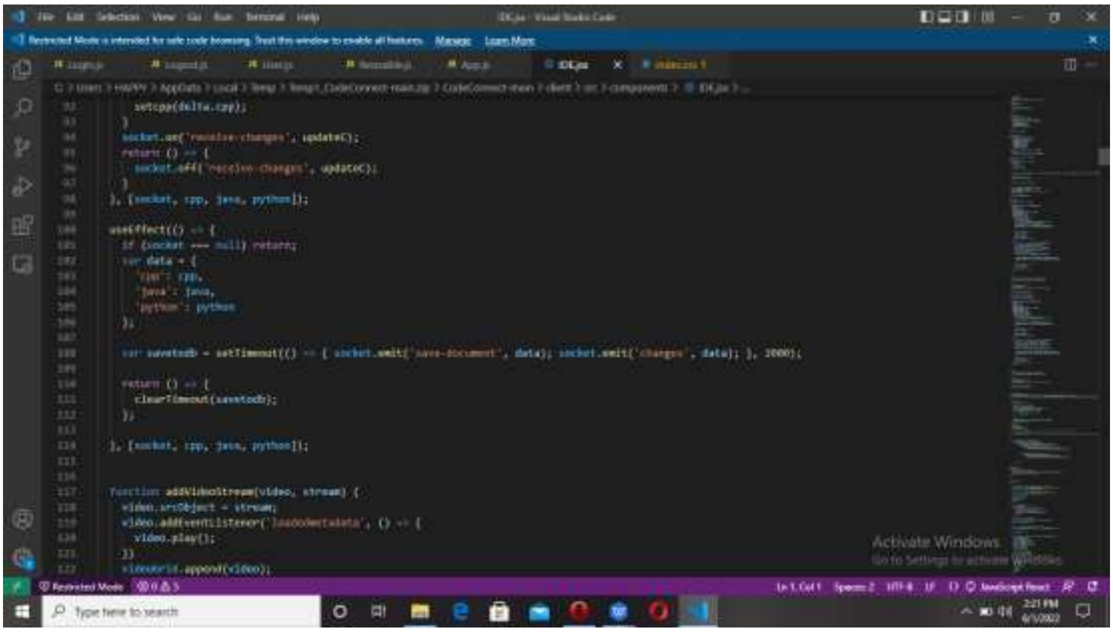

File Edit Selection View Go Run Terminal Help
IDE.js - Visual Studio Code
Restricted Mode is intended for safe code browsing. Trust this window to enable all features. Manage Learn More
Login.js Logout.js User.js Rerouttable.js App.js IDE.js index.css
Restricted Mode
Activate Windows
Go to Settings to activate Windows.
Type here to search
2:21 PM
6/1/2022

```
  const { id: DocId } = useParams();
  const [socket, setSocket] = useState(null);
  const [cpp, setcpp] = useState('');
  const [java, setjava] = useState('');
  const [python, setpython] = useState('');
  const [selected, setSelected] = useState('PYTHON');
  const [peer, setPeer] = useState(null);
  const [input, setInput] = useState('');
  const [output, setOutput] = useState('');
  const [modal, setModal] = useState(false);
  const username = 'amit'
  const videoGrid = document.getElementById('video-grid');
  const myVideo = document.createElement('video');
  myVideo.className = "rounded mb-6"
  myVideo.muted = true;
  const [myStream, setMyStream] = useState(null);
  const peers = {};
  const colorsRef = useRef(null);
  const [userId, setUserId] = useState(null);
  const [textEditor, setTextEditor] = useState('input');
  const [processing, setProcessing] = useState(false);
  const [percentageStage, setPercentageStage] = useState(0);
  const [myvideoon, setMyvideoon] = useState(true);


  useEffect(() => {
    var TempSocket = io('http://localhost:3001');
    setSocket(TempSocket);
    const peer = new Peer(undefined, {
      host: 'localhost',
      port: 9000,
```



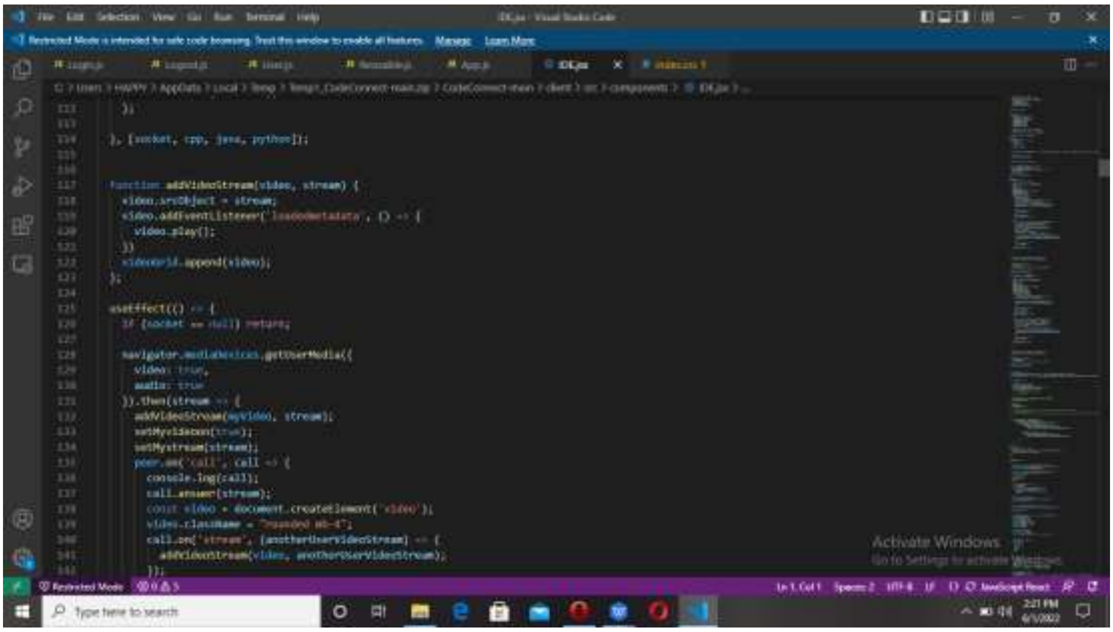
Restricted Mode is intended for safe code browsing. Trust this window to enable all features. Manage Learn More

```
      port: 9000,
      path: '/',
      metadata: { userName: 'name goes here' }
    });
    setPeer(peer);

    return () => {
      TempSocket.disconnect();
    };
  }, []);


  useEffect(() => {
    if (socket == null) return;
    socket.emit('get-document', DocId);
    socket.once('load-document', (data) => {
      setcpp(data.cpp);
      setjava(data.java);
      setpython(data.python);
    });

  }, [socket, DocId]);


  useEffect(() => {
    if (socket === null) return;
    var updateC = (delta) => {
      setpython(delta.python);
      setjava(delta.java);
      setcpp(delta.cpp);
      setcpp(delta.cpp);
```



Restricted Mode is intended for safe code browsing. Trust this window to enable all features. Manage Learn More

```
      setcpp(delta.cpp);
    }
    socket.on('receive-changes', updateC);
    return () => {
      socket.off('receive-changes', updateC);
    }
  }, [socket, cpp, java, python]);

  useEffect(() => {
    if (socket === null) return;
    var data = {
      'cpp': cpp,
      'java': java,
      'python': python
    };

    var savetodb = setTimeout(() => { socket.emit('save-document', data); socket.emit('changes', data); }, 2000);

    return () => {
      clearTimeout(savetodb);
    };

  }, [socket, cpp, java, python]);


  function addVideoStream(video, stream) {
    video.srcObject = stream;
    video.addEventListener('loadedmetadata', () => {
      video.play();
    })
    videoGrid.append(video);
```



File Edit Selection View Go Run Terminal Help
IDE.js - Visual Studio Code
Restricted Mode is intended for safe code browsing. Trust this window to enable all features. Manage Learn More
Restricted Mode
Type here to search
Activate Windows
Go to Settings to activate Windows.

```
  });

}, [socket, cpp, java, python]);


function addVideoStream(video, stream) {
  video.srcObject = stream;
  video.addEventListener('loadedmetadata', () => {
    video.play();
  })
  videoGrid.append(video);
};

useEffect(() => {
  if (socket == null) return;

  navigator.mediaDevices.getUserMedia({
    video: true,
    audio: true
  }).then(stream => {
    addVideoStream(myVideo, stream);
    setMyvideoon(true);
    setMystream(stream);
    peer.on('call', call => {
      console.log(call);
      call.answer(stream);
      const video = document.createElement('video');
      video.className = "rounded mb-4";
      call.on('stream', (anotherUserVideoStream) => {
        addVideoStream(video, anotherUserVideoStream);
      });
```

VIII. SCOPE

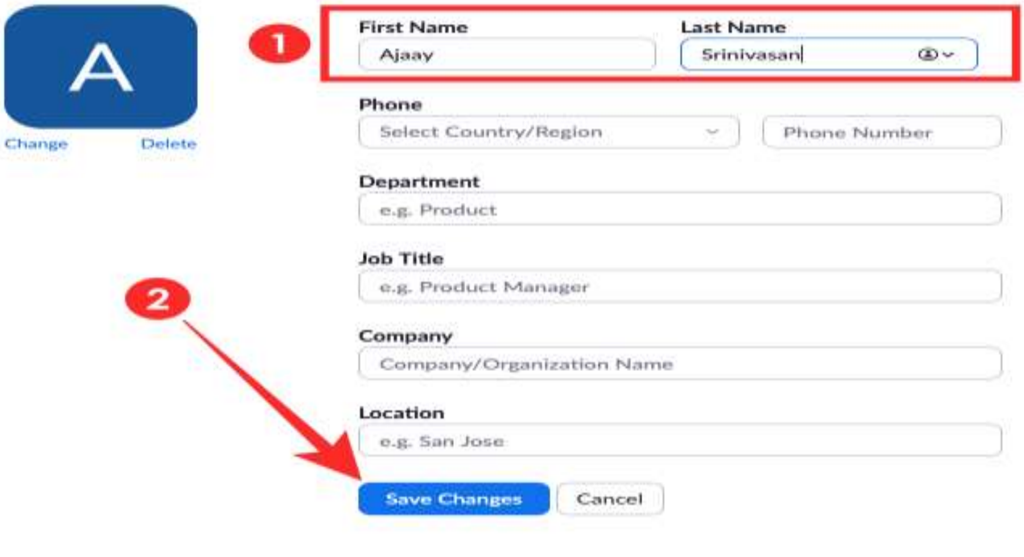
This website is very help full for current generation as well as for further,

Because now a days most of the company conducting online interviews for that this one of the best free website . it is very easy to operate in any language while giving interview.

IX. RESULT

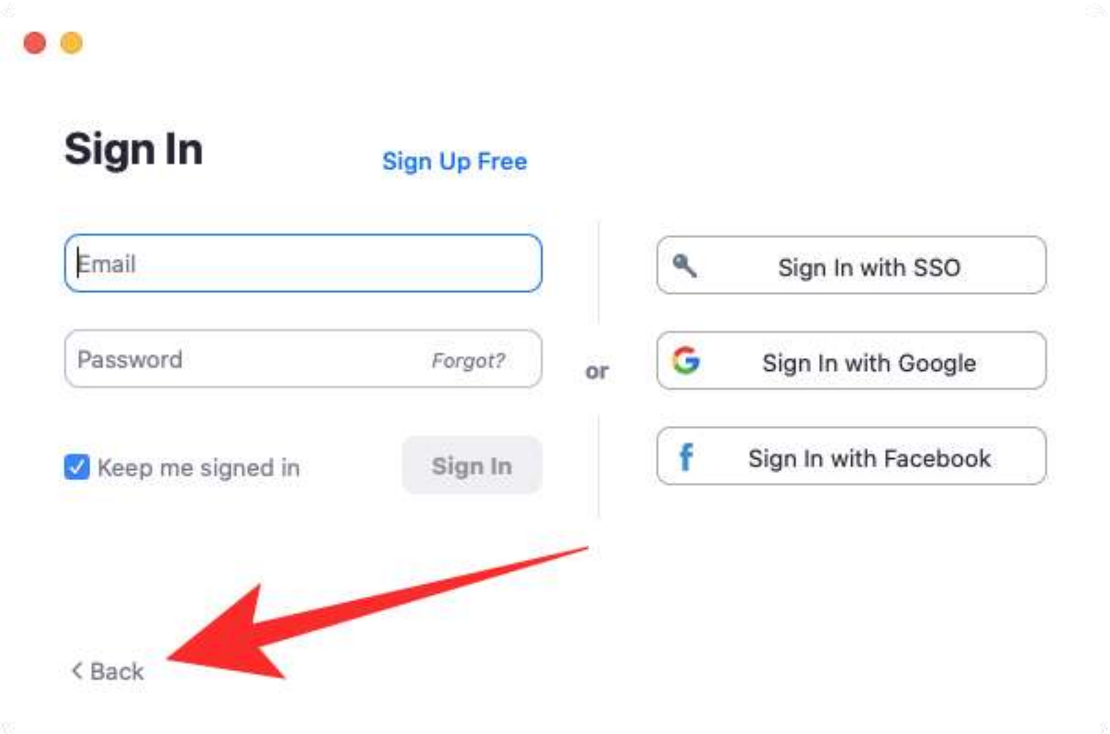
After the successful running the project the output is mentioned below in structure form.

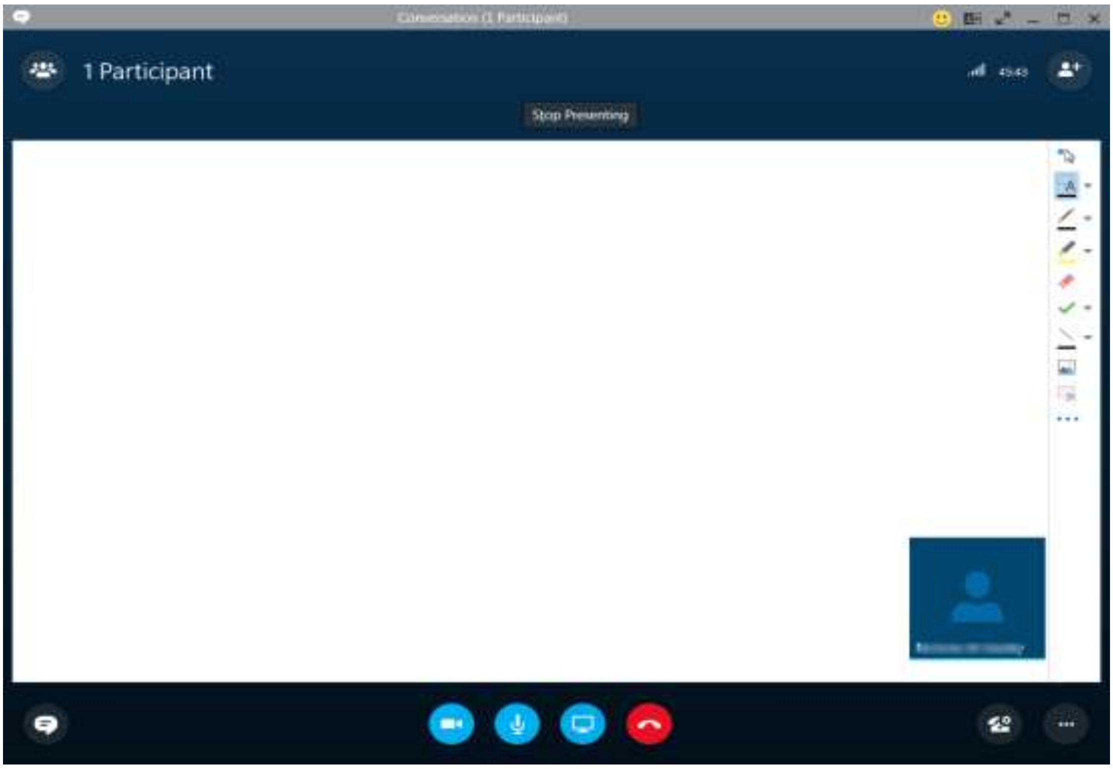
Figure

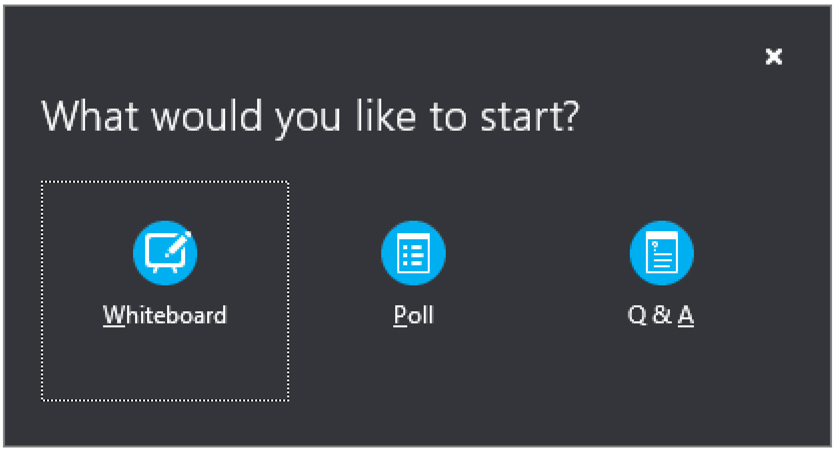


First Name: Ajaay
Last Name: Srinivasan
Phone: Select Country/Region | Phone Number
Department: e.g. Product
Job Title: e.g. Product Manager
Company: Company/Organization Name
Location: e.g. San Jose

Figure 2


Sign In
Sign Up Free
Email
Password
Forgot?
☑ Keep me signed in
Sign In
or
Sign In with SSO
Sign In with Google
Sign In with Facebook
< Back


Conversation (1 Participant)
1 Participant
Stop Presenting



X. CONCLUSION

This site facilitates for the user especially for the interviewers in a single platform with all maintenance and needs. It will be boon and bless for the interviewers those who wants to take interviews in both viva as coding this platform is the best for them.