Project Development Phase

Team ID	PNT2022TMID35843
Project Name	Smart Solutions for Railways

SPRINT 1:

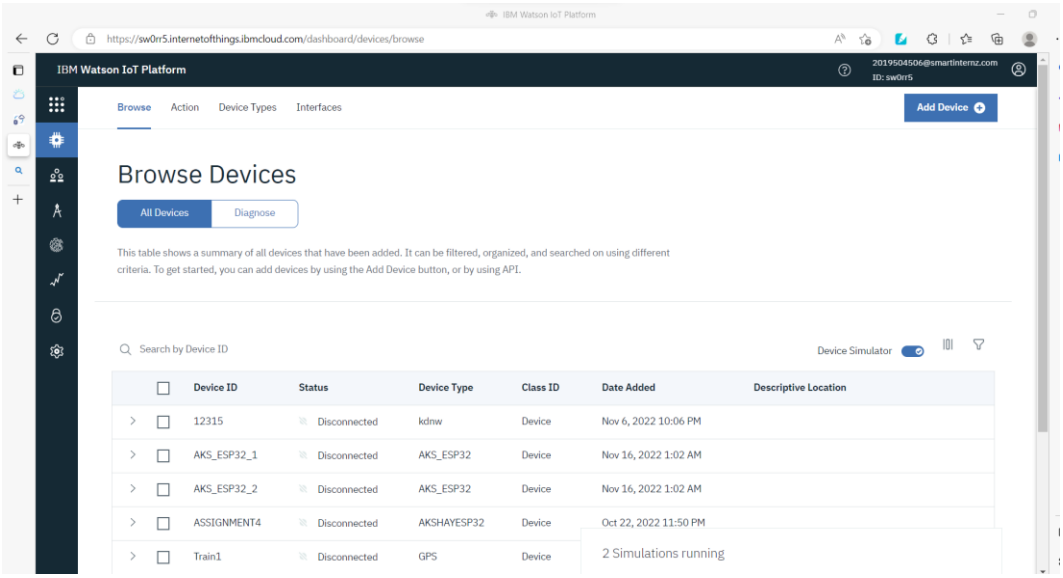
Contents:

1. **Setting up the required software tools.**
2. **Develop a web UI using Node Red .(Sign-up ,login, Forgot password)**
3. **Develop an app using MIT App inventor .(Sign-up, Login, Forgot Password)**

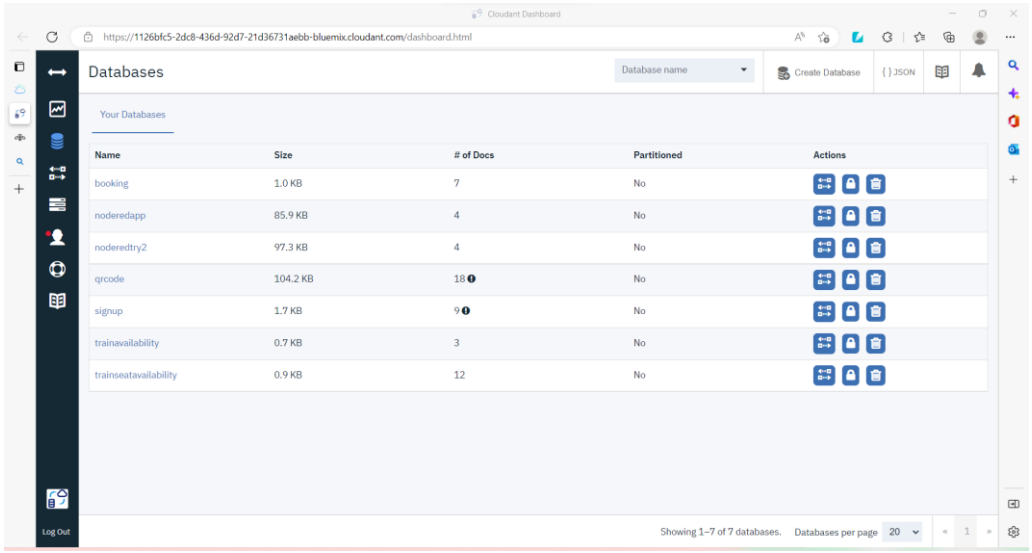
1. Required Service Setup

Create and configure IBM Cloud services.

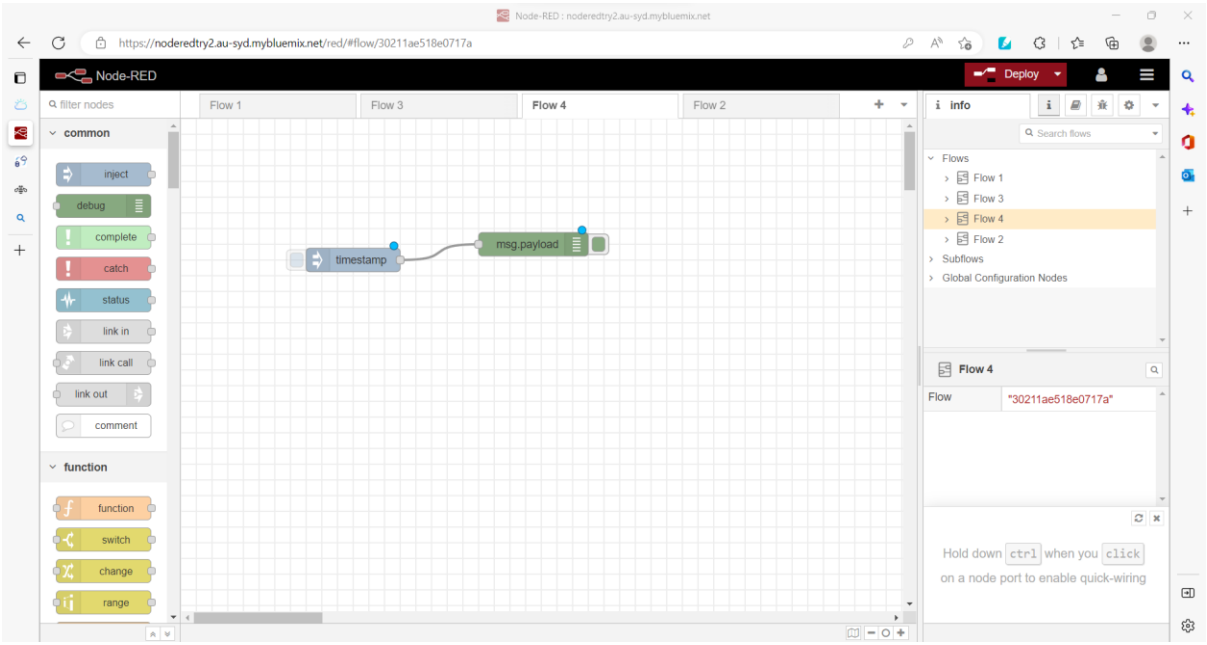
IBM IOT Watson Platform



IBM Cloudant Database

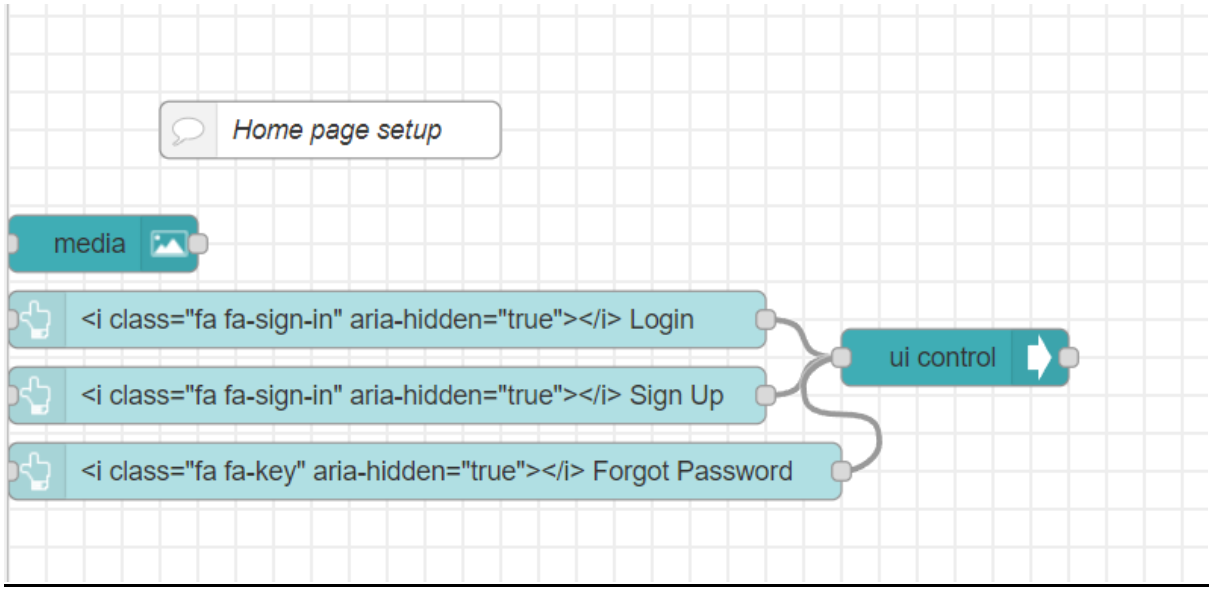


Node-Red

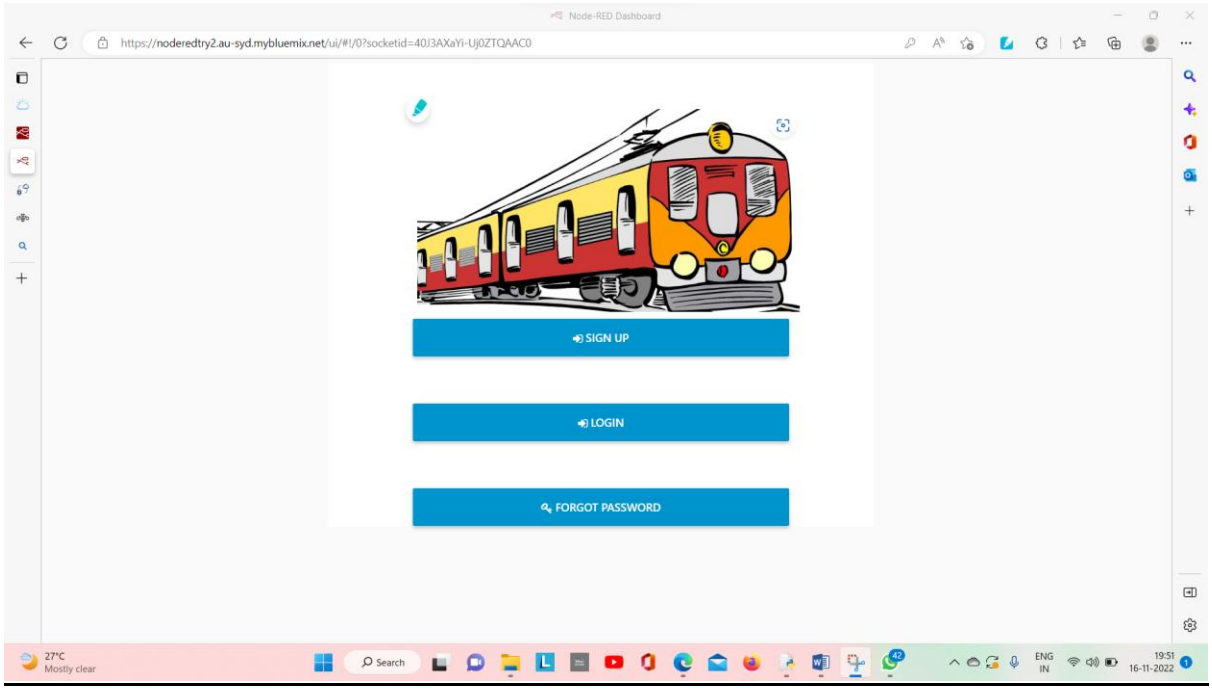


2. Sprint-1 web UI flow in Node-Red

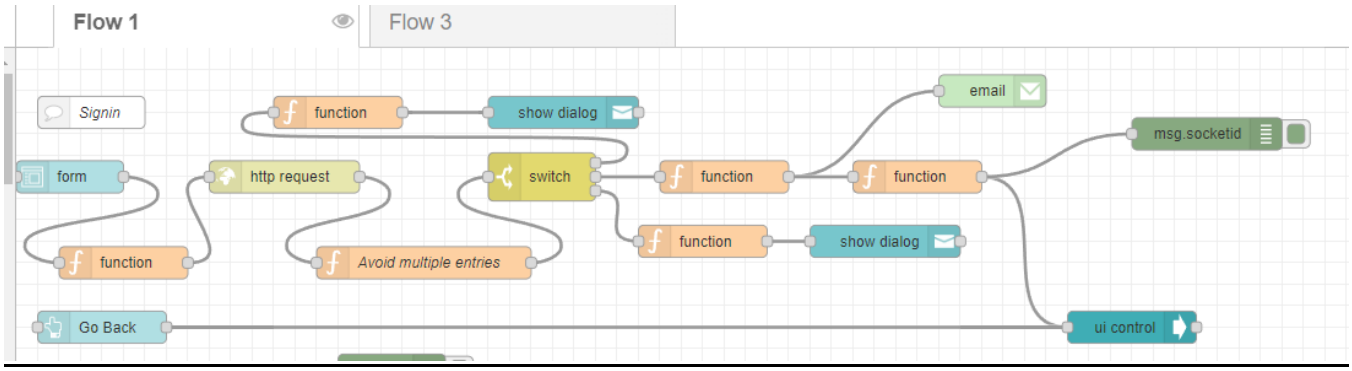
Flow of Home Page



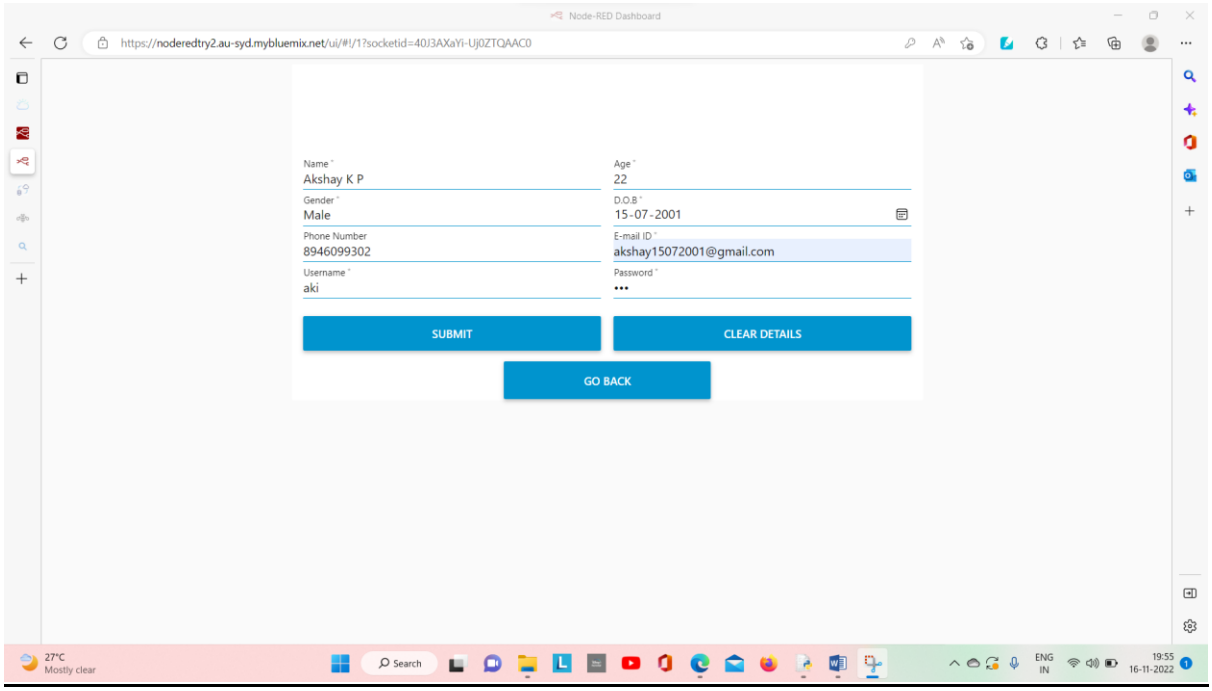
UI of Home Page



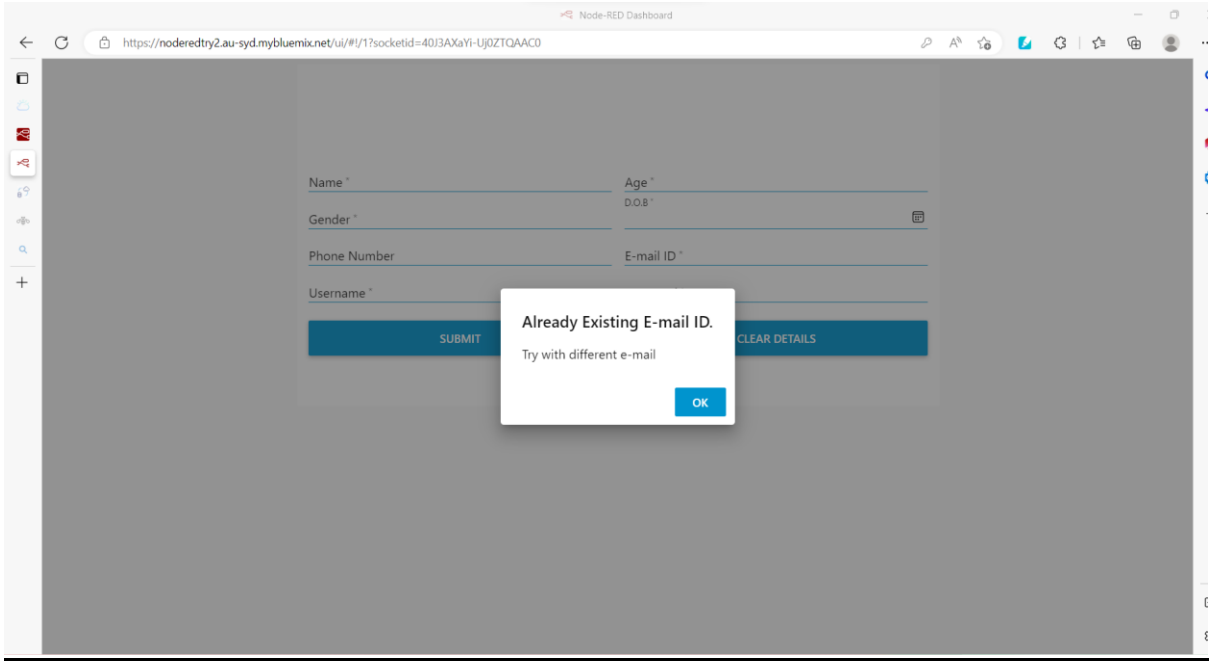
Flow of Sign-up Page



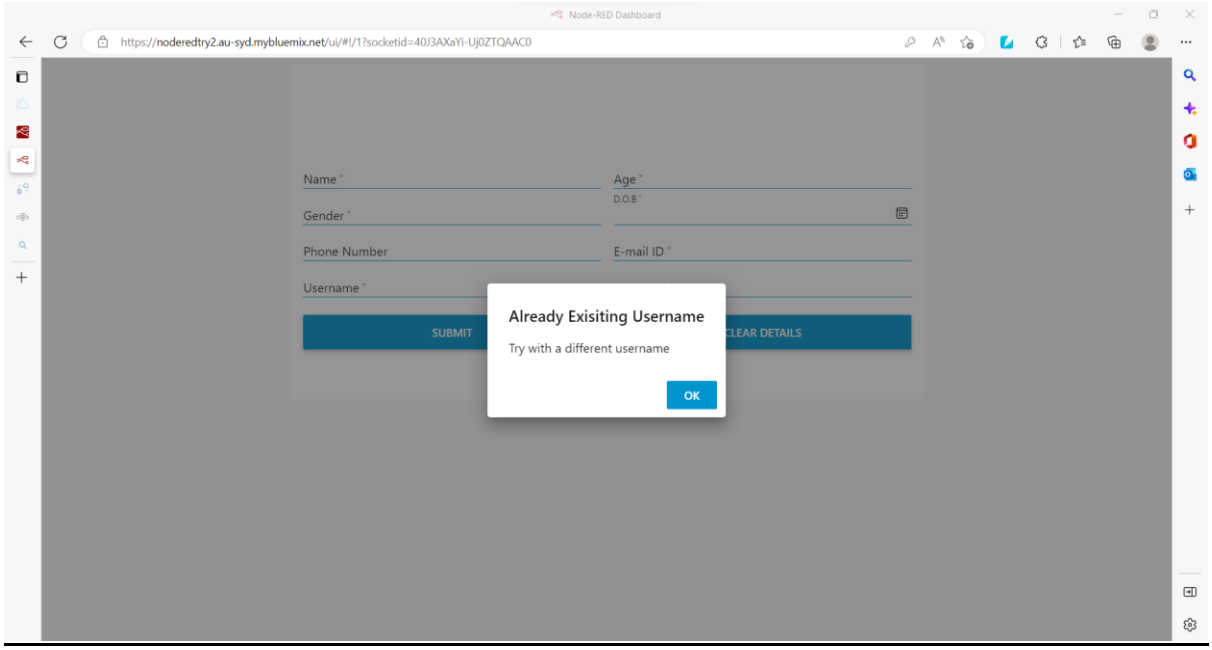
UI of Sign up page



(After entering existing E-mail ID)

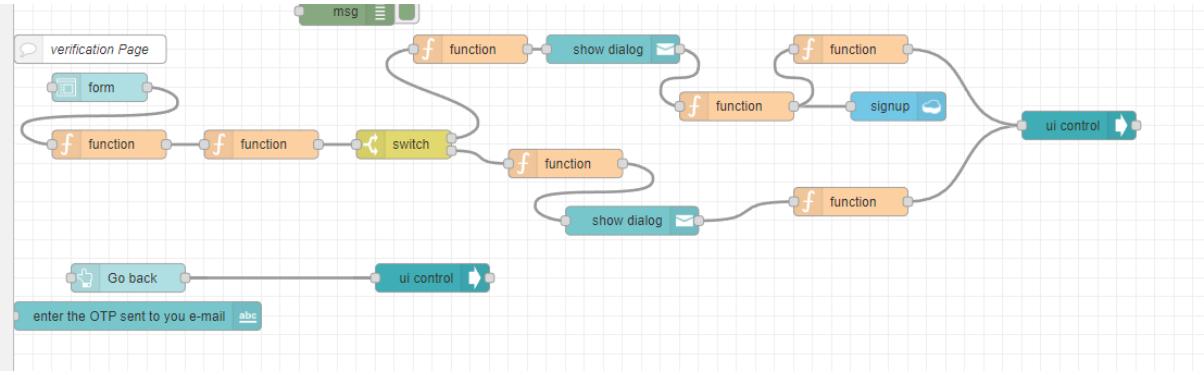


(After entering existing username)

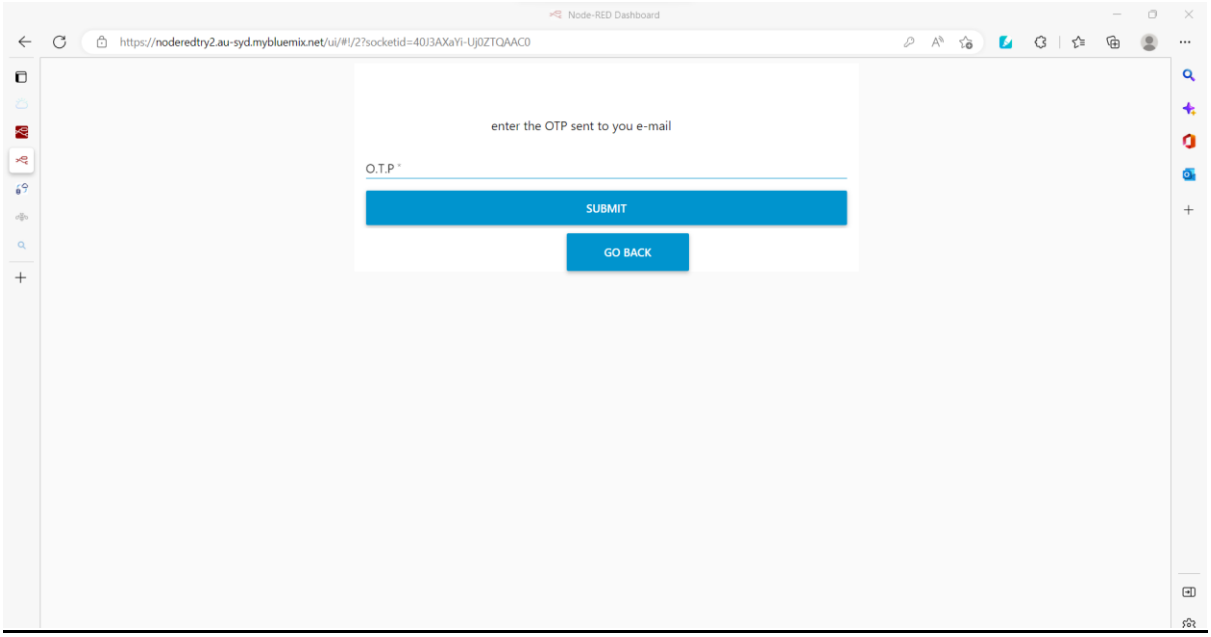


(After entering unique username and E-mail flow goes to verification page)

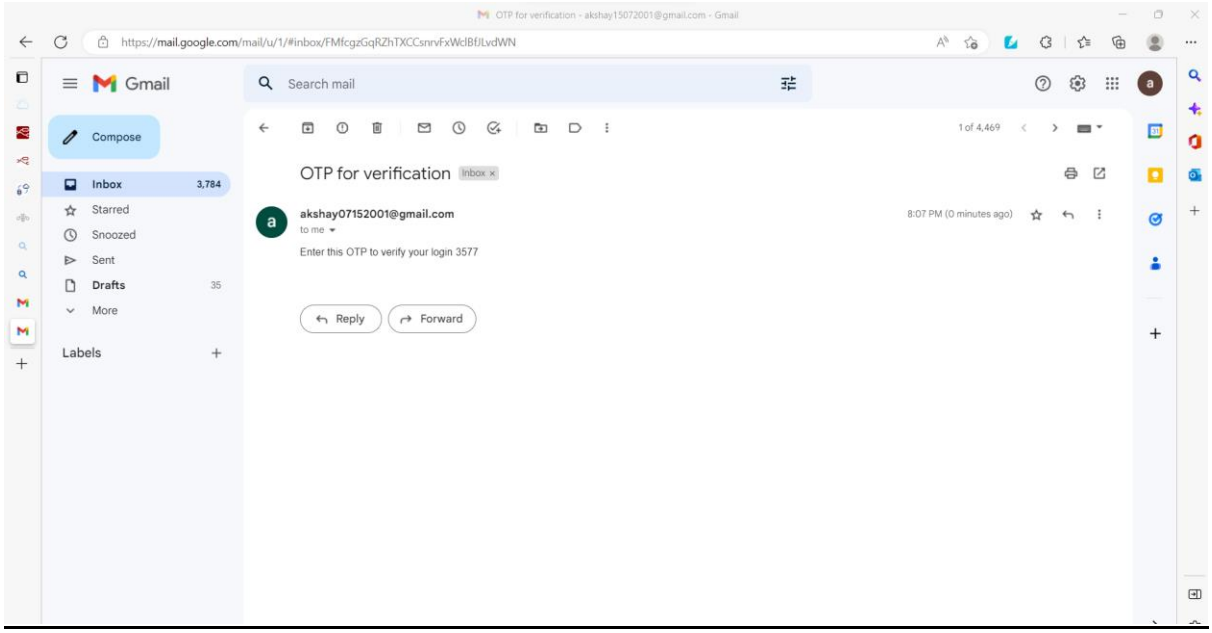
Flow of Verification Page



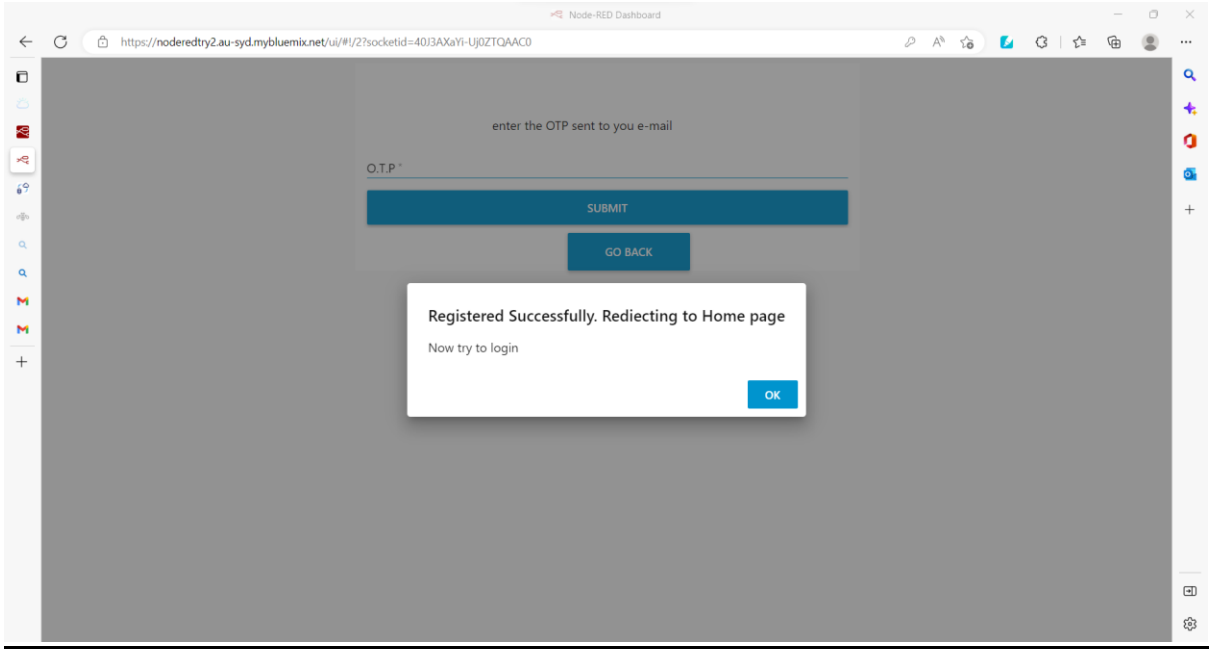
UI of Verification Page



(Mail will be sent to user's mail-ID)

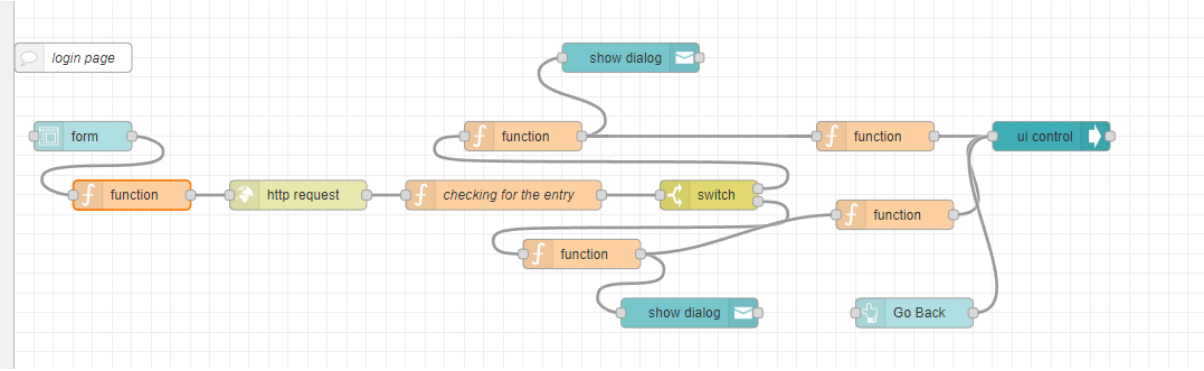


(Upon Successful Verification, you will be redirected to the Home page and your details will be stored in a Database named "signup".)

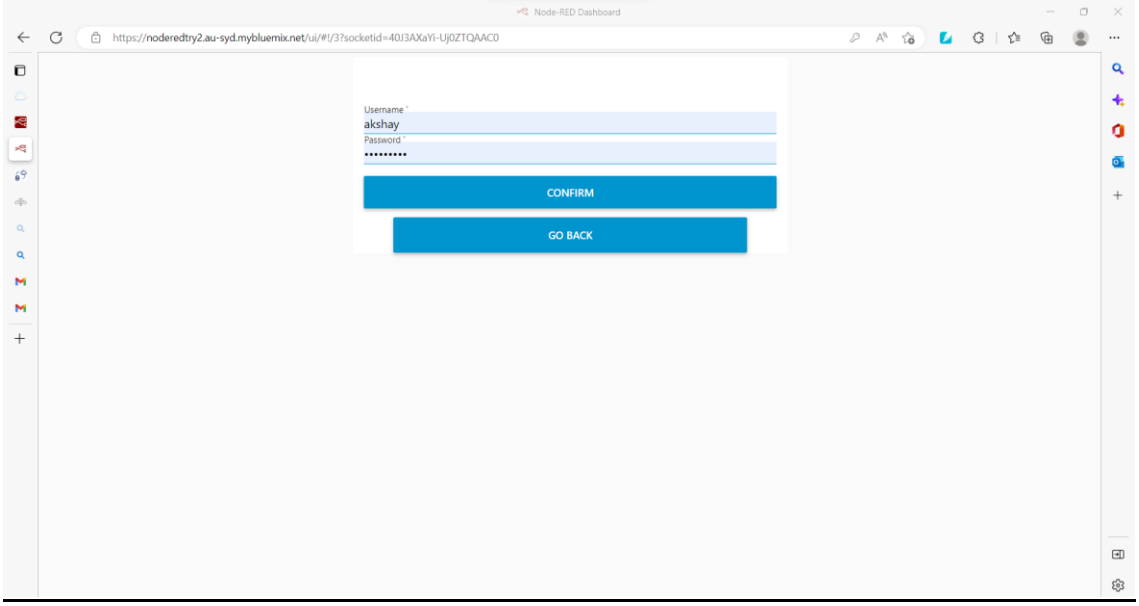


(If Verification is unsuccessful control will move to sign-up page and you should fill the details again).

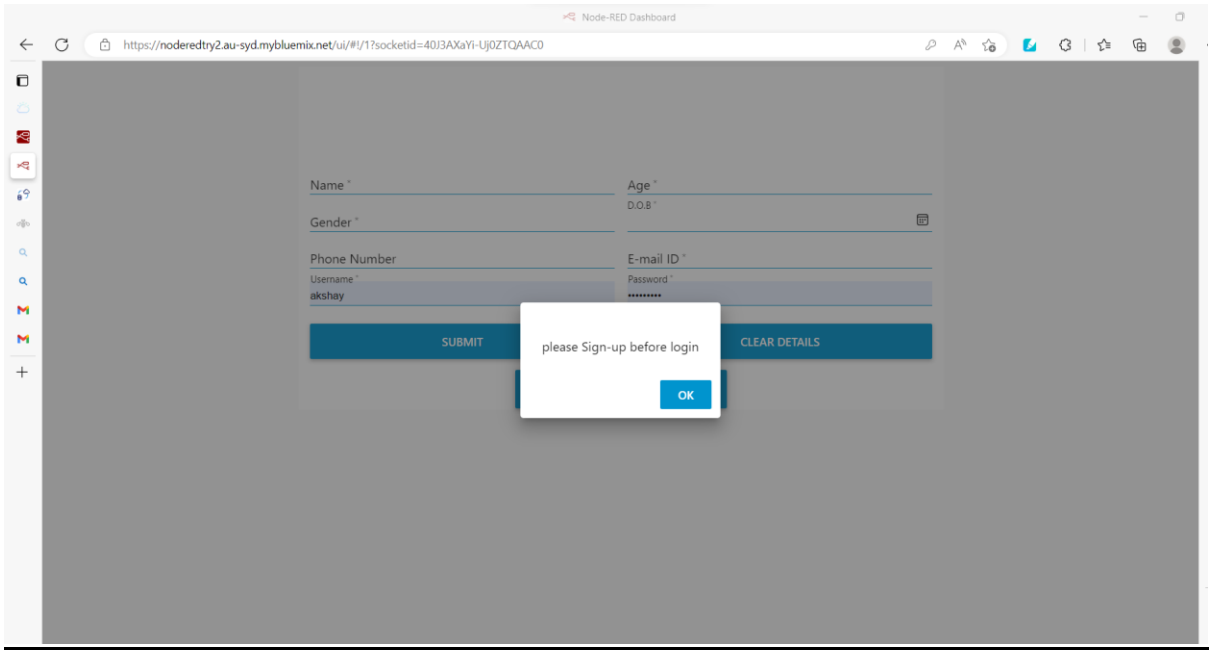
Flow of Login Page



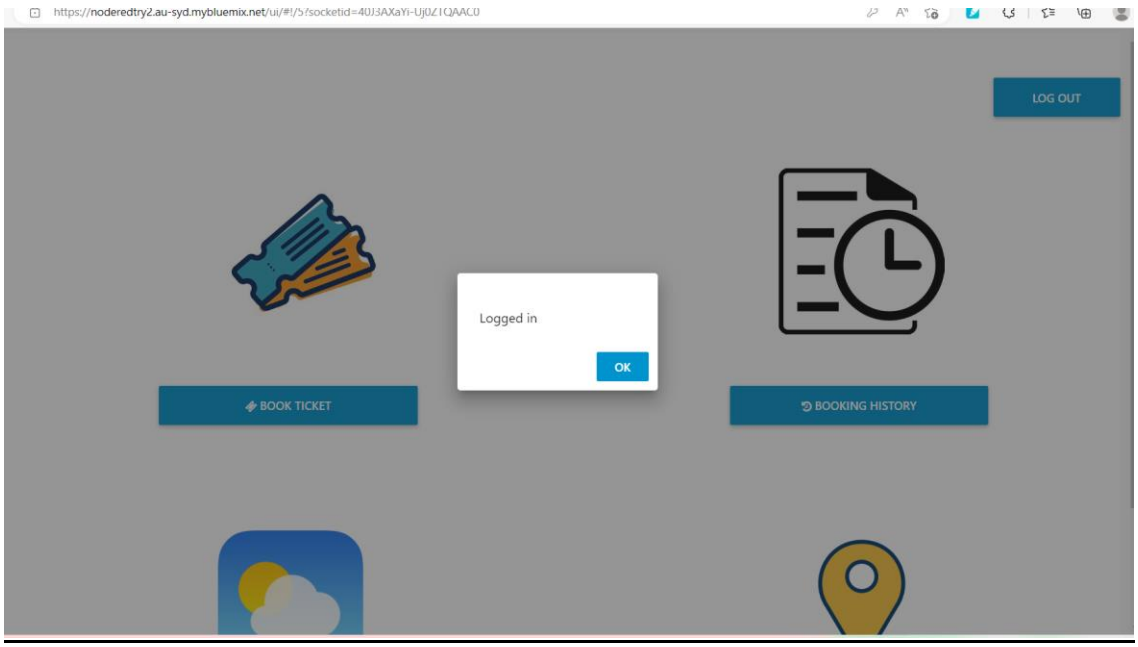
UI of Login Page



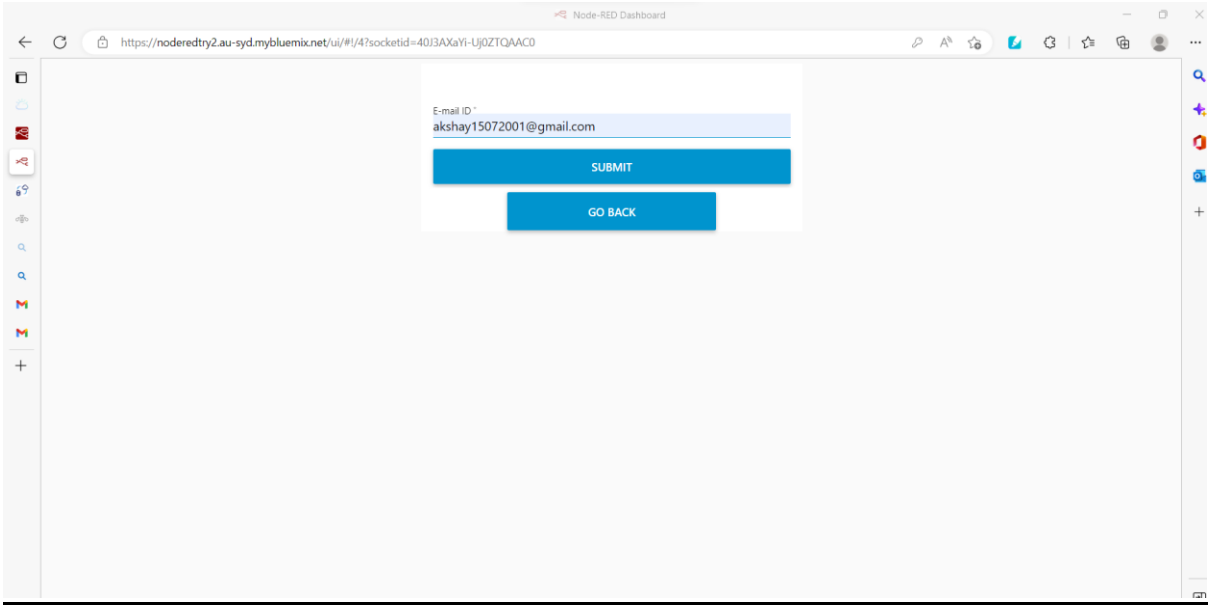
(If invalid credentials are entered)



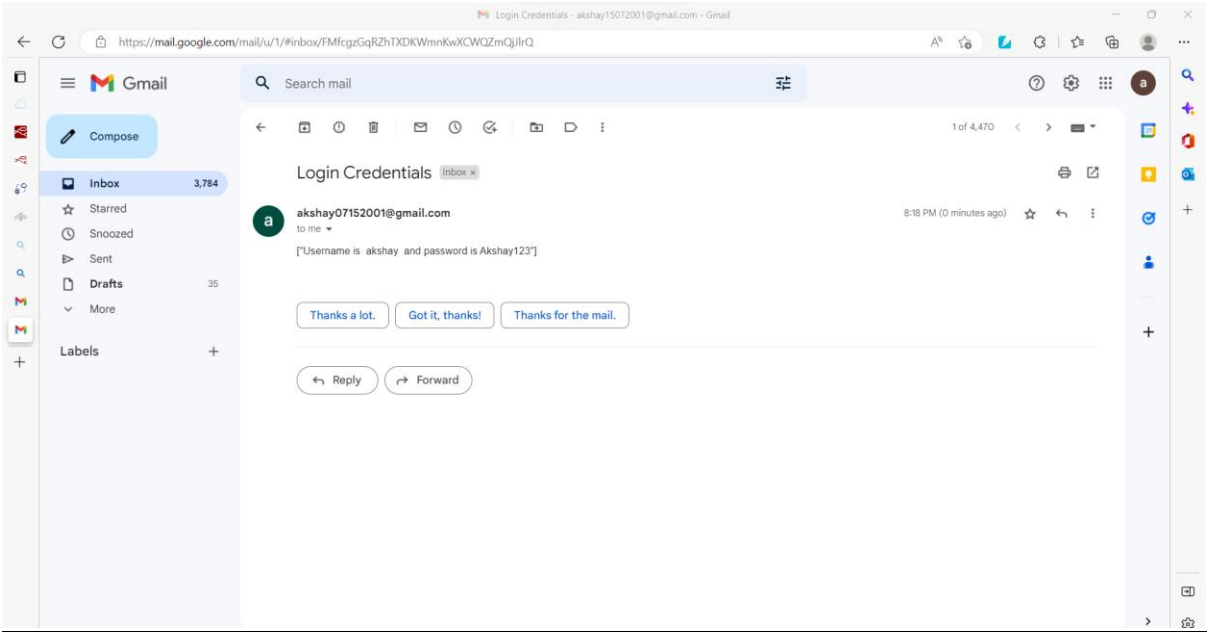
(If valid credentials are entered, Control moves to main page)



(If you forgot your password you can click on the Forgot Password button in the Home Page)



(Upon entering the E-mail ID username and password will be sent to you mail)



||). Creating a App using MIT App inventor 2 for reserving tickets

WORK FLOW CHART

1. Create a project in MIT APP INVENTOR.
2. Setup an account with firebase real time database to store the user credentials.
3. Setup screen1 to the **logo screen** (which is programmed to be viewed for 2 seconds and jump to screen-2).
4. Screen-2:-

   SIGNUP PAGE → to create a account for the user.

   Button to LOGIN PAGE → if a user already have an account.
5. Case 1: USER CREATING A NEW ACCOUNT

   Credentials such as phone number and password will be getting from the user and stored in firebase real time database.

   After entering required fields, on clicking "register using mobile number "button, he will be directed to **OTP verification page** for the 4 digit OTP sent to the given his/her mobile number.

   OTP will be sent to his number on completion of OTP verification ,his/her valid ,mobile number and password will be stored in firebase real time database as json format (i.e. "mobile number":" password") and will be directed to **LOGIN PAGE** to login to his/her account**.**

   Case 2: USER HAVE ALREADY AN ACCOUNT

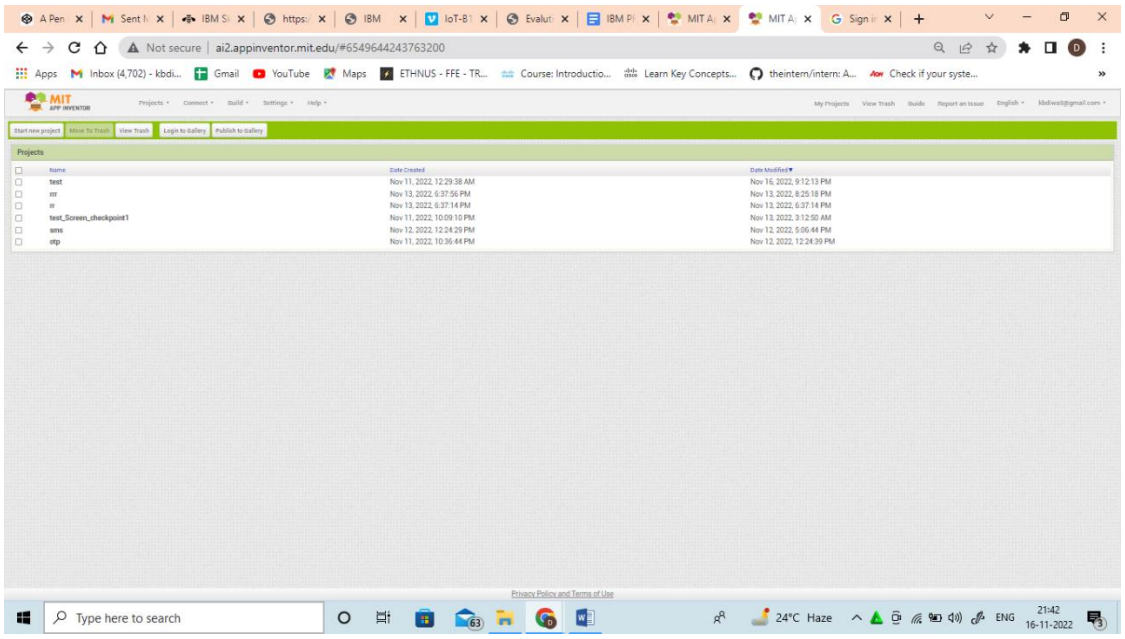
   He/she will be asked for the mobile number and password for which is given by him/her during registering an account. On entering correct details, user will be directed to **DASHBOARD PAGE**.

   IF USER FORGOTS PASSWORD

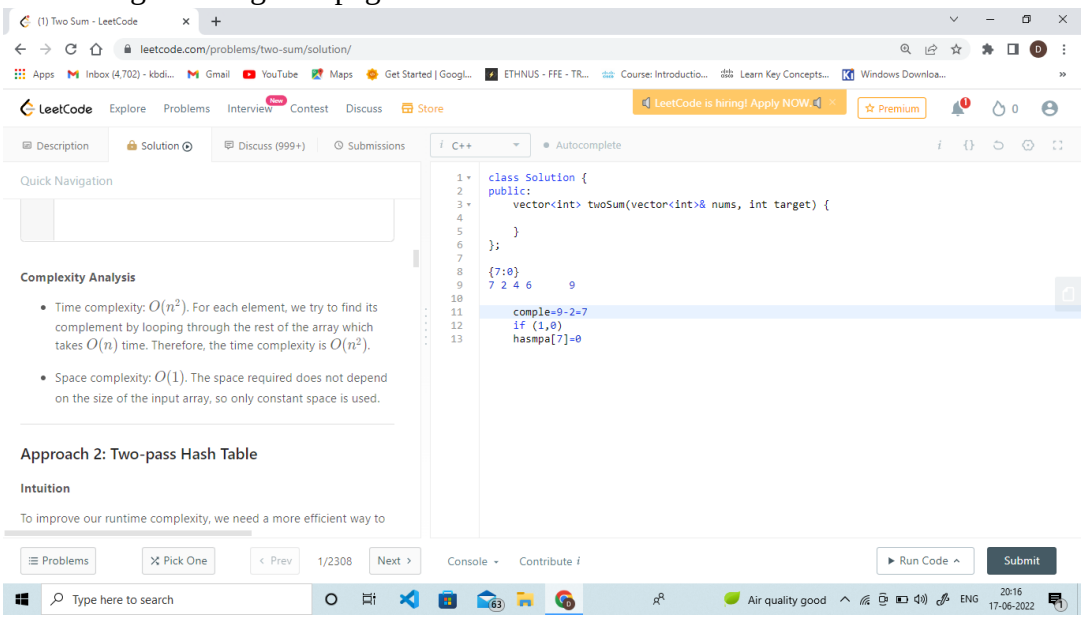
   He/she will be directed to **password reset page,** where the user had to enter the registered mobile number and click get OTP button, the he will asked to enter the OTP received to him on successful verification, the user will be asked to reset the password, so that the new password will be replaced/updated in the firebase real time data base for the given mobile number, then direct the user to LOGIN PAGE to login to his/her account.

Setting a project in MIT app inventor2

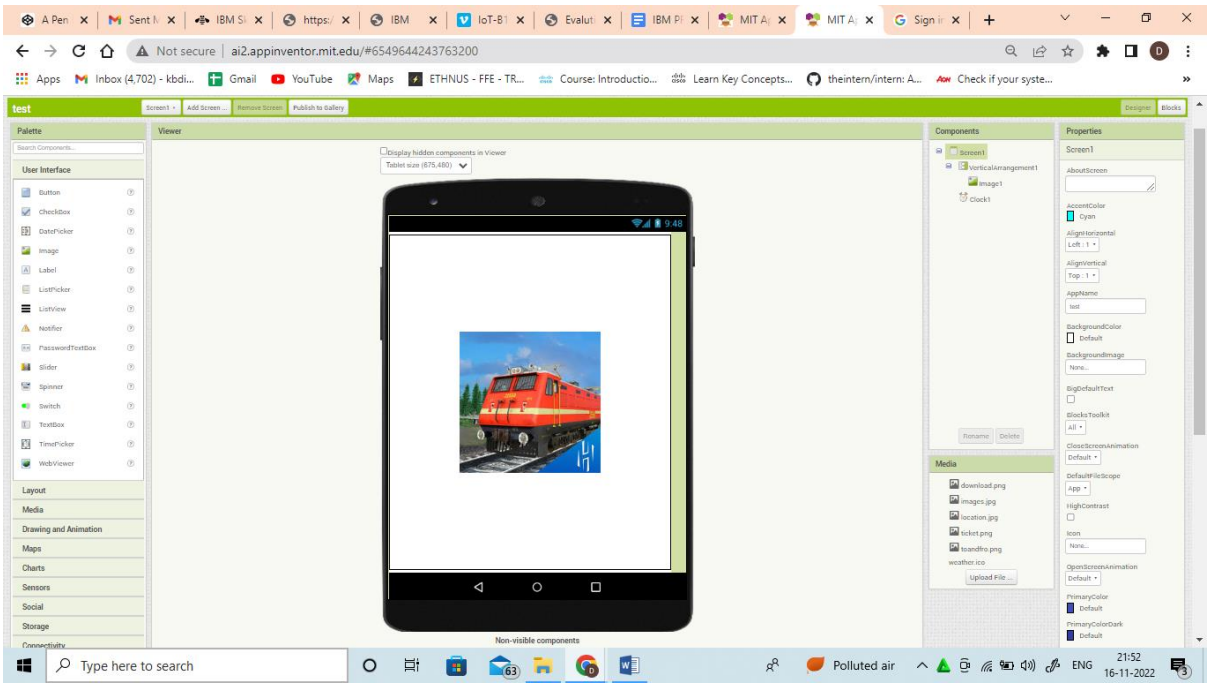
1. click new project, say for example here project named “test” is created.



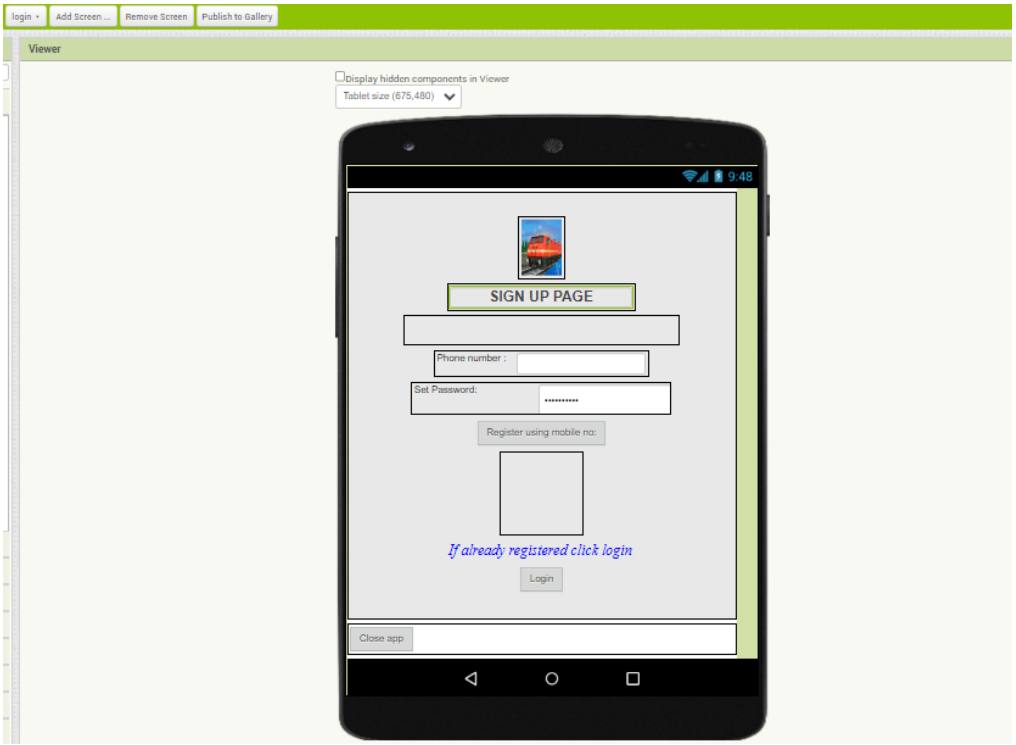
2. **Setup an account with firebase real time database to store the user credentials.** Named Sign-in /Login-in page



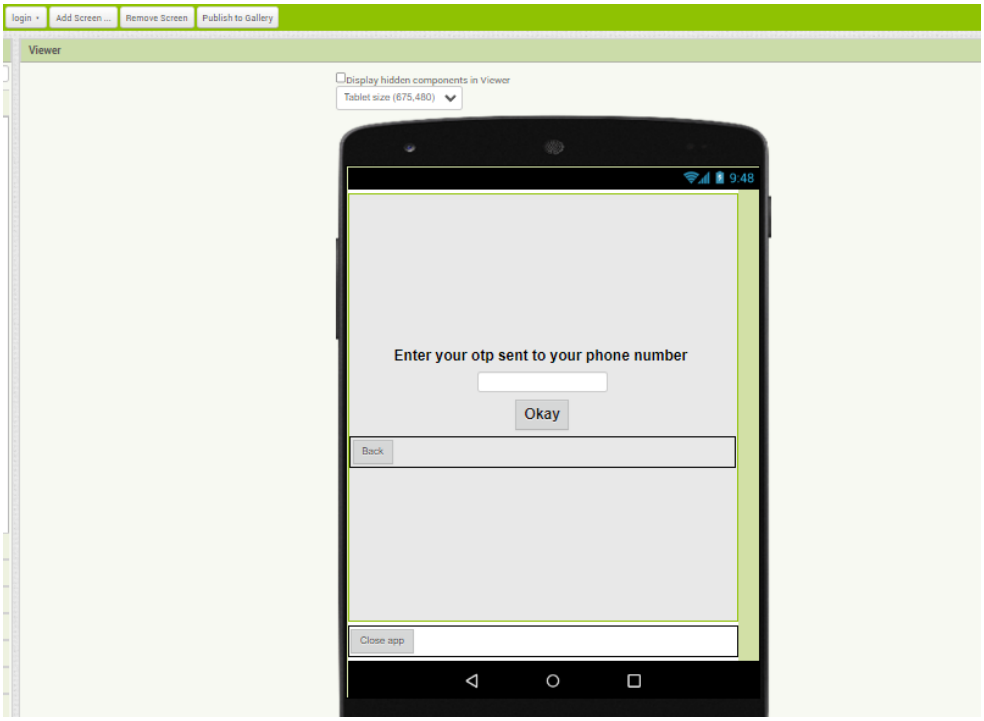
3. LOGO SCREEN



4. SIGNUP PAGE

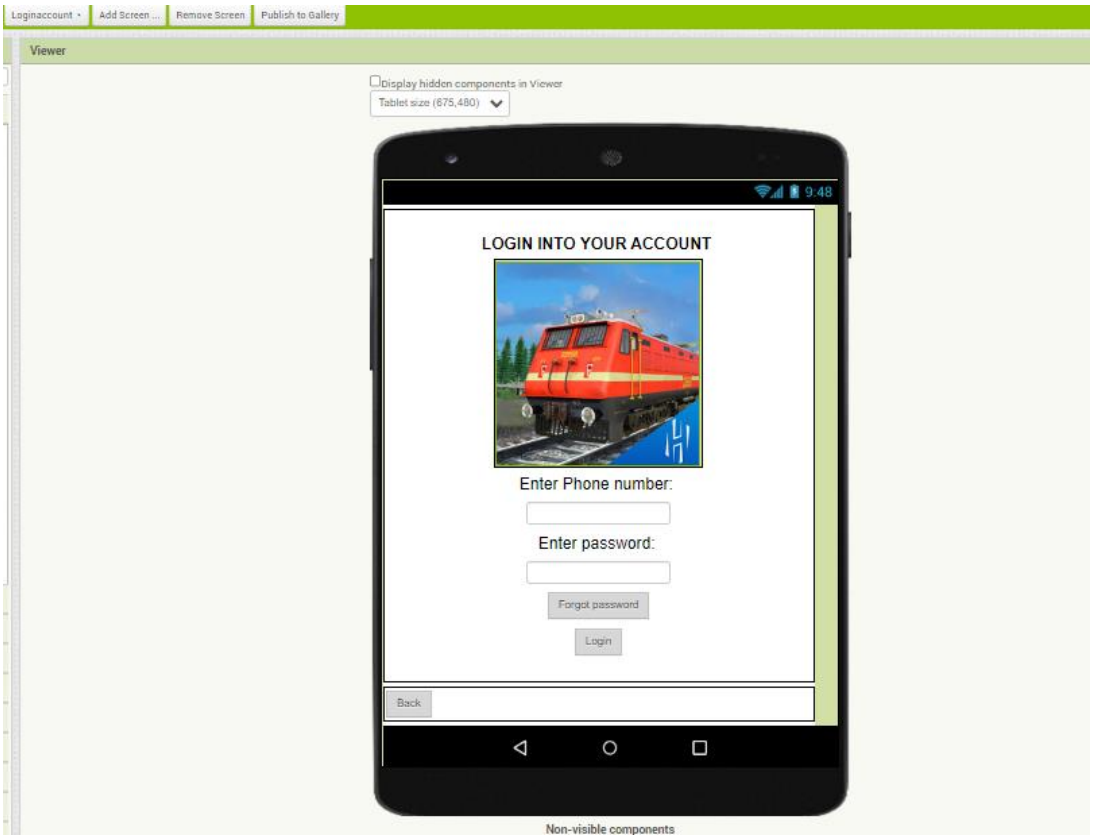


5. OTP VERIFICATION PAGE

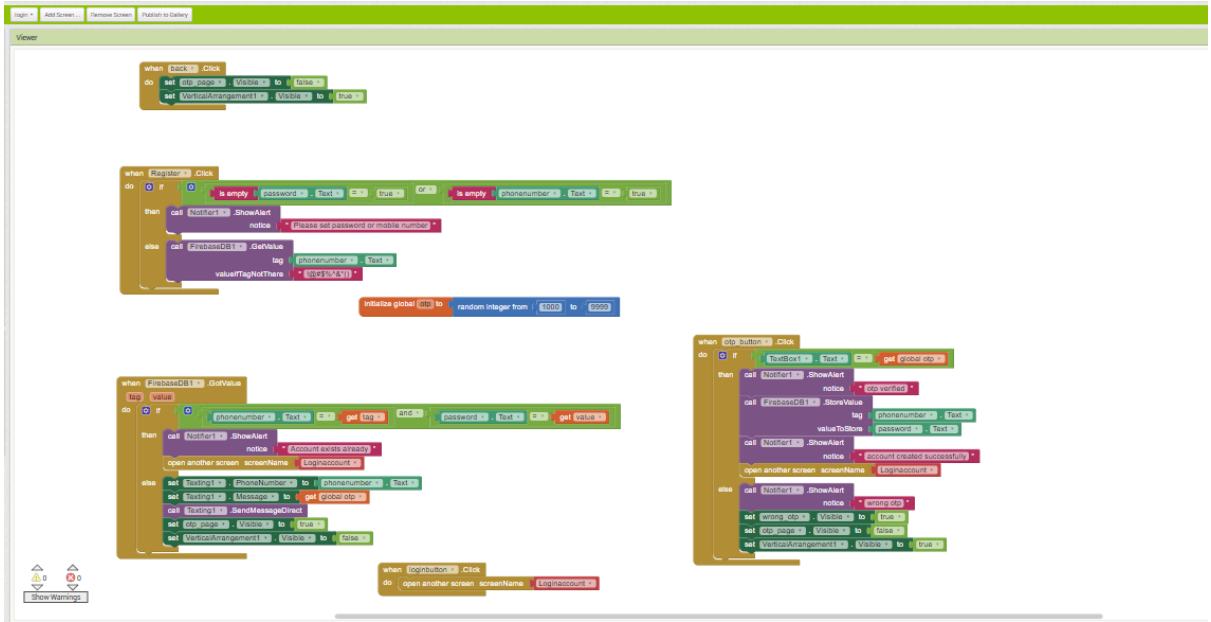


6. Account created notifier.

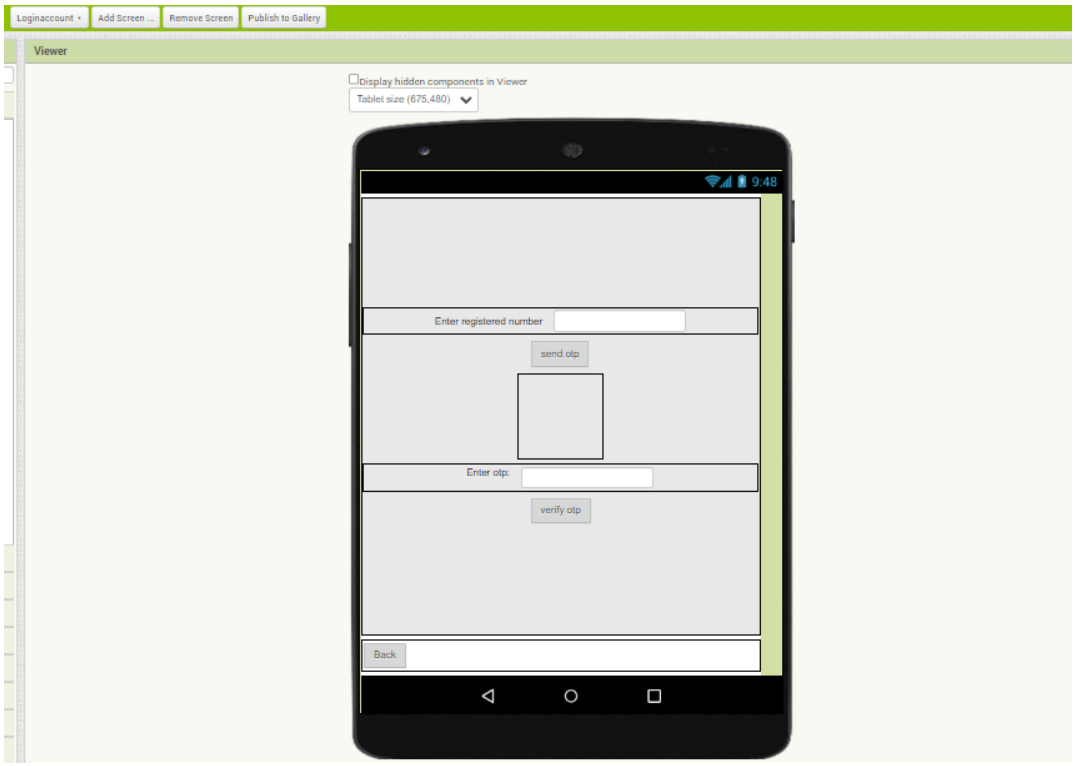
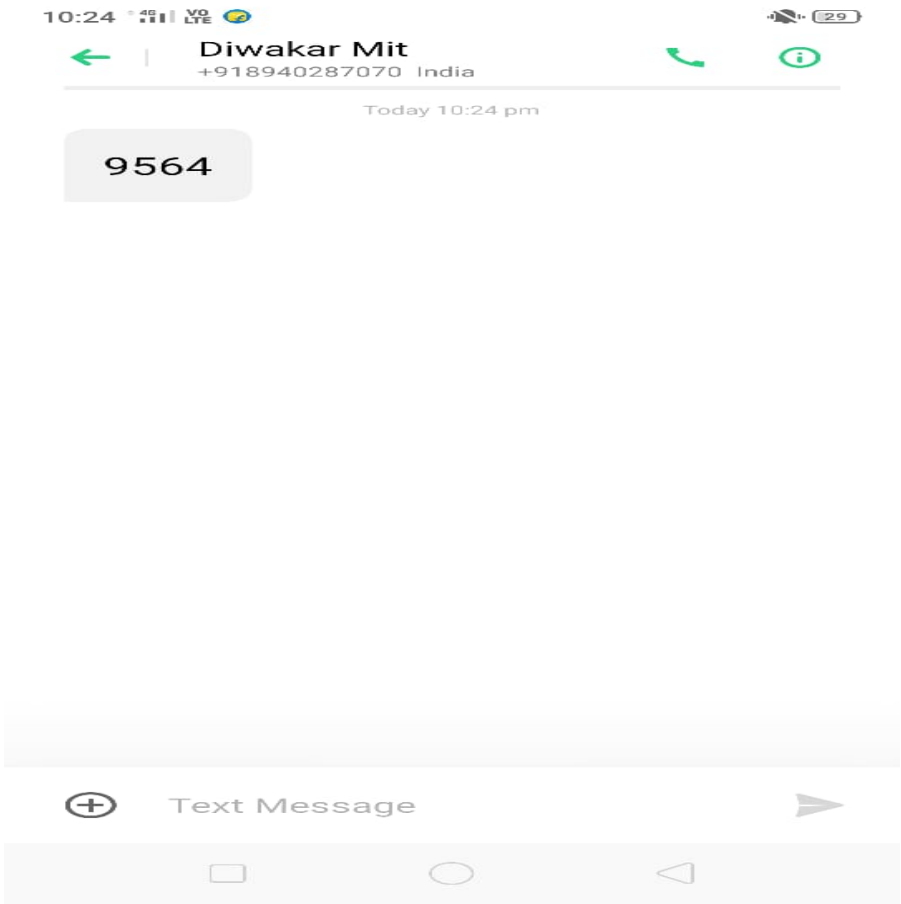
7. LOGIN PAGE



8. Backend Block logic



9. Forgot password page



10. OTP received from user.