SPRINT 2

Date	31 October 2022
Team ID	PNT2022TMID27462
Project Name	Project - Hazardous Area Monitoring for Industrial
	Plant powered by IoT

Sprint 2 focuses on user authentication and registration.

Employees can sign up and log in to the app using an email address and password.

This is achieved through Google Firebase Authentication.

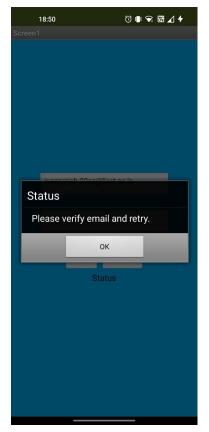
User Interface



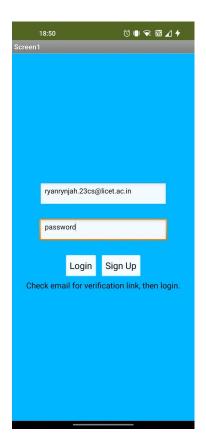
The authentication page that greets users.



Users can enter their credentials and press either Sign In or Login.



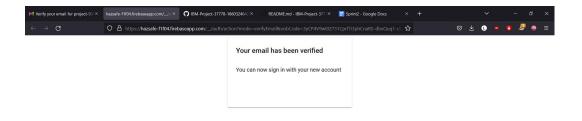
If an unregistered user tries to login, they are greeted with this error



If the user chooses to Sign Up, the status message changes, indicating to users to go check their mail for a verification link.

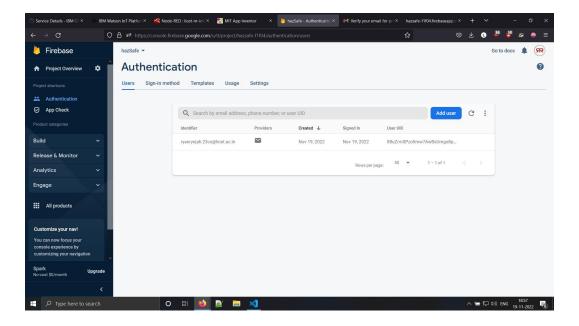


The verification mail arrives (sometimes in spam folder) with the verification link.





Users who click the link are redirected to the above page which indicates that their email has been verified.



If we check the Firebase Authenication Console, we see that the user has indeed been added to the list of verified users.



Now if the user clicks login, they are redirected to the next page.

Firebase API

The first step is to log in and create a Firebase project and obtain an API key.

```
initialize global getAccountInfo to https://identitytoolkit.googleapis.com/v1/accoun...
initialize global login to https://identitytoolkit.googleapis.com/v1/accoun...
initialize global token to
initialize global API to
                        " AlzaSyD57BrXD3uXk_Mil1Al74R8-q-ByAla5Dg
initialize global createaccount to
                                 https://identitytoolkit.googleapis.com/v1/accoun...
initialize global datalist to [  create empty list
when SignUpB .Click
     set Web1 . Url to
                                   🧔 join
                                              get global createaccount *
                                              get global API *
     call Web1 .PostText
                                ioin
                                            " email= "
                         text
                                            TextBox1 ▼
                                                         . Text ▼
                                             &password= "
                                            TextBox2 Text
                                             returnSecureToken=true
```

The above block handles account creation when the Sign Up button is pressed.

```
when Web1 .GotText
 url
     responseCode responseType
                                   responseContent
                              Check email for verification link, then login.
    set Label4 . Text .
    set global datalist to
                            call Web1 .JsonTextDecode
                                                jsonText
                                                           get responseContent *
    set global token v to look up in pairs key "idToken
                                               get global datalist *
                                              " not found "
                                   notFound
    set Web2 . Url v to
                              join
                                        get global login *
                                        get global API
    call Web2 .PostText
                            ioin
                                       idToken= "
                      text
                                      get global token *
                                      " &requestType= "
                                       VERIFY_EMAIL
    call Screen1 .HideKeyboard
```

This block sends the verification email on successful account creation.

```
when LoginB .Click
    set Web3 . Url v to
                                         get global getAccountInfo
                              ioin
                                         get global API
    call Web3 .PostText
                      text
                             join
                                        idToken= "
                                       get global token 🔻
    set Label4
                  . Text v to
                                " Status "
when Web3 .GotText
      responseCode
                      responseType
                                    responseContent
    🔯 if
              contains * text
                                get responseContent *
                       piece
                                " true "
    then
          open another screen screenName Screen2 v
          call Notifier1 .ShowMessageDialog
                                    message
                                                 Please verify email and retry.
                                         title
                                                 Status "
                                   buttonText
                                                 OK "
```

This block checks if the account is verified when Login is clicked. If verified, it opens the next page of the app.