PROJECT DEVELOPMENT PHASE

SPRINT-3

Date	15 November 2022
Team ID	PNT2022TMID35368
Project Name	Smart Farmer-IoT Enabled smart farming application
Maximum Marks	8 Marks

Sprint	Functional Requirement (Epic)	User Story Number	User Story / Task	Story Points	Priority	Team Members
Sprint-3	Registration and login (Mobile)	USN-8	As a user, I can also login using mobile application	10	High	Deepika, Yogeshwari
Sprint-3	Dashboard (Mobile)	USN-9	As a user, I can also view dashboard and control motors using mobile application	10	High	Deepika, Yogeshwari

Introduction:-

MIT App Inventor is used to create a mobile application from values available in Node-RED service

Login:-

Login page is created in MIT App Inventor where username and password is verified with values stored in Node-RED credentials page.



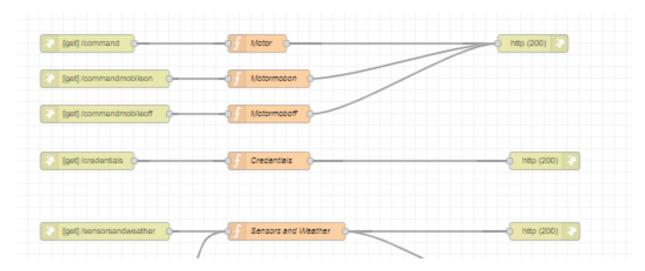
Dashboard:-

Dashboard is created in MIT App Inventor with sensor and weather API values obtained from Node-RED sensors and weather page and motor is controlled using 2 separate additional command pages in Node-RED.





Flows:-



MIT App Inventor Backend:-

```
call FirebaseDB1 * .
                                   get global username 🔻
                                   get global password *
      call FirebaseDB1 .GetValue
                            tag ( TextBox1 * . Text *
               valueIfTagNotThere NA
  set (Web1 * ). (Url * ) to | http://159.122.186.173:30699/sensorsandweather
   set Web2 • . Url • to http://159.122.186.173:30699/credentials
   call Web2 . Get
   set (Web3 * ). (Url * ) to (http://159.122.186.173:30699/command *
when FirebaseDB1 .GotValue
do ② if get tag * = * get global username *
   then if get value = get global password
         then set VerticalArrangement1 v . Visible v to false v
              set VerticalArrangement2 v . Visible v to true v
  set Label2 * . Text * to Wrong Username and Password *
```

```
when Web1 7 .GotText
url responseCode responseType responseContent
  set TextBox4 T . Text T to look up in pairs key temp
                                       pairs call Web1 JsonTextDecode
                                                                jsonText get responseContent •
                                    notFound ont found
  set TextBox6 . Text to look up in pairs key humid
                                       pairs call (Web1 v .JsonTextDecode
                                                             jsonText get responseContent •
                                    notFound ont found
  set TextBox8 v . Text v to look up in pairs key feelslike
                                      pairs call Web1 JsonTextDecode
                                                                jsonText | get responseContent r
                                    notFound ont found
  set TextBox10 . Text to look up in pairs key watter
                                        pairs call Web1 JsonTextDecode
                                                                jsonText get responseContent •
                                     notFound not found
```

```
when Button1 .Click
   do set Web3 . Url to http://159.122.186.173;30699/commandmobileon
       call (Web3 * ).Get
  when Button2 . Click
  do set Web3 . Url to ( http://159.122.186.173:30699/commandmobileoff)
      call Web3 ▼ .Get
  when Web2 .GotText
   url responseCode responseType responseContent
  do set global username to look up in pairs key username
                                          pairs call Web2 J.JsonTextDecode
                                                                   jsonText | get responseContent *
                                      notFound not found a
      set global password * to look up in pairs key password *
                                         pairs call Web2 JsonTextDecode
                                                                   jsonText get responseContent •
                                      notFound ( not found "
initialize global username to interest none
initialize global password to none
```

Further Works:-

Final works of database creation for sensor values and alert SMS for critical scenarios only remain.