## Sprint-4

Date	19 September 2022		
Team ID	PNT2022TMID4740		
Project Name	Project - Industry-Specific Intelligent Fire		
	Management System		

Sprint-4	US-1	Create Web UI in Node- Red	10	High	Indhumathi K,Hariharan S,Athira V R
Sprint-4	US-2	Configure the Node-RED flow to receive data from the IBM IoT platform and also use Cloudant DB nodes to store the received sensor data in the cloudant DB	10	High	Indhumathi K,Hariharan S,Athira V R,Arun Raj G

## US - 1 Create Web UI in Node- Red

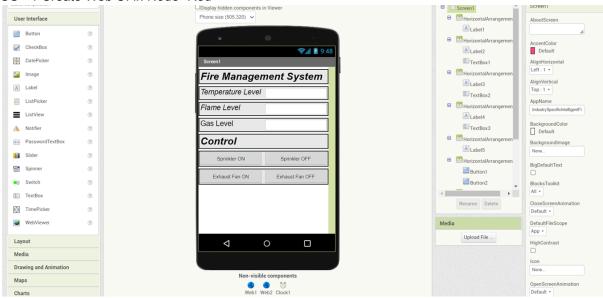


fig 1: Mobile App Layout for our project using MIT App Inventor

```
when Clock1 .Timer
  do set Web1 . Url . to . " http://159.122.183.108:32627/sensor "
      call Web1 ▼ .Get
when Web1 .GotText

        url
        responseCode
        responseType
        responseContent

do set TextBox1 v . Text v to look up in pairs key "Temperature"
                                            pairs call Web1 JsonTextDecode
                                                                        notFound profession " not found "
    set TextBox2 v . Text v to look up in pairs key "Flame_Level"
                                            pairs call Web1 JsonTextDecode
                                                                        jsonText get responseContent •
                                         notFound  " not found "
    set TextBox3 v . Text v to look up in pairs key Gas_Level
                                            pairs call Web1 v .JsonTextDecode
                                                                        jsonText | get responseContent •
                                         notFound | " (not found) "
```

```
when Button1 v .Click
do set Web2 v . Url v to ( "http://159.122.183.108:32627/control?command=spr... "
call Web2 v .Get

when Button2 v .Click
do set Web2 v .Get

when Button3 v .Click
do set Web2 v .Get

when Button3 v .Click
do set Web2 v .Get

when Button4 v .Click
do set Web2 v .Get

when Button4 v .Click
do set Web2 v .Get
```

fig 2: Blocks of your MIT AI2 Companion app

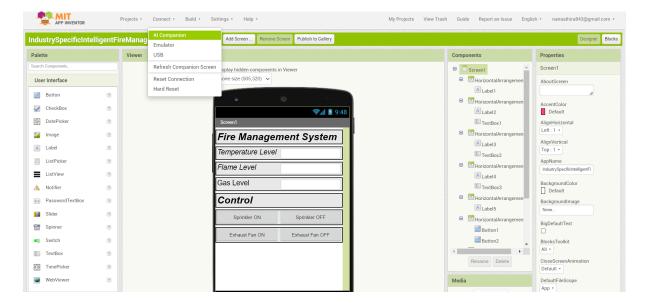


fig 3:Connecting the layout design to the mobile app MIT AI2 Companion

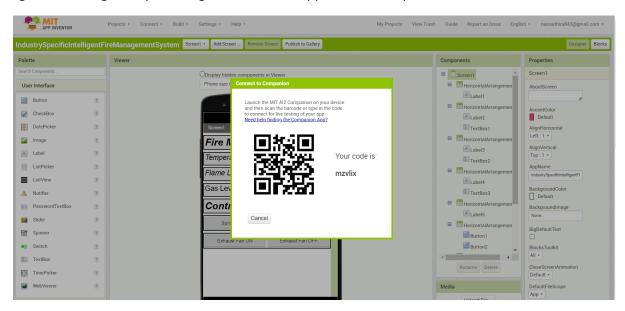


fig 4:QR code generating in the MIT App inventor



```
Published Temperature = 72 C Flame_Level = 64 % Gas_Level = 66 % to IBM Watson Command received: sprinkleron
Sprinkler is on
Published Temperature = 46 C Flame_Level = 64 % Gas_Level = 7 % to IBM Watson Command received: sprinkleroff
Sprinkler is off
Published Temperature = 65 C Flame_Level = 58 % Gas_Level = 6 % to IBM Watson Command received: exhaustfanon
Exhaust Fan ON
Published Temperature = 36 C Flame_Level = 59 % Gas_Level = 93 % to IBM Watson Command received: exhaustfanoff
Exhaust Fan OFF
Published Temperature = 19 C Flame_Level = 93 % Gas_Level = 88 % to IBM Watson Published Temperature = 47 C Flame_Level = 86 % Gas_Level = 15 % to IBM Watson Published Temperature = 97 C Flame_Level = 58 % Gas_Level = 63 % to IBM Watson Published Temperature = 97 C Flame_Level = 58 % Gas_Level = 63 % to IBM Watson
```

fig 5: random values generating in the python code

Screen1					
Fire Management System					
Temperature Level	26				
Flame Level	60				
Gas Level	96				
Control					
Sprinkler ON	Sprinkler OFF				
Exhaust Fan ON	Exhaust Fan OFF				

fig 6: the generated values are shown in MIT AI2 Companion app