SMART FARMER – IOT ENABLEDD SMART FARMING

APPLICATION

PROJECT DEVELOPMENT – DELIVERY OF

SPRINT - 1

TITLE: SMART FARMER – IOT ENABLEDD SMART FARMING APPLICATION

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Create a Python Code:

Code:

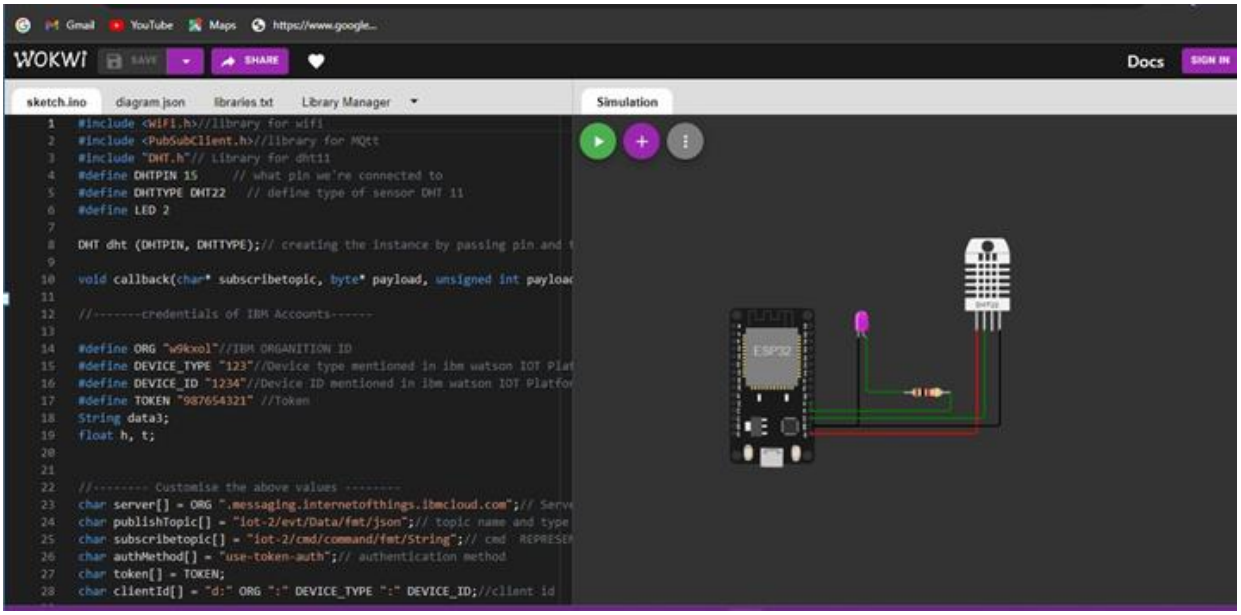
```
import time
import sys
import ibmiotf.application
import ibmiotf.device
import random

#Provide your IBM Watson Device Credentials
organization = "w9kxol"
deviceType = "123"
deviceId = "1234"
authMethod = "token"
authToken = "987654321"

# Initialize GPIO
def myCommandCallback(cmd):
 print("Command received: %s" % cmd.data['command'])
 status=cmd.data['command']
 if status=="motoron":
 print ("motor is on")
 elif status == "motoroff":
 print ("motor is off")
 else :
 print ("please send proper command")

try:
        deviceOptions = {"org": organization,
"type": deviceType, "id": deviceId, "auth-
method": authMethod, "auth-token": authToken}
        deviceCli = ibmiotf.device.Client(deviceOptions)
        #.....

except Exception as e:
print("Caught exception connecting device: %s" %
                                        str(e))
        sys.exit()

# Connect and send a datapoint "hello" with
value "world" into the cloud as an event of type
"greeting" 10 times
deviceCli.connect()
```

```
while True:
 #Get Sensor Data from DHT11

 temp=random.randint(90,110)
 Humid=random.randint(60,100)
 moist=random.randint(50,120)
 data = { 'temp' : temp, 'Humid': Humid ,'moist':moist}
 #print data
 def myOnPublishCallback():
 print ("Published Temperature = %s C" % temp,
"Humidity = %s %%"
% Humid,"soilmoisture=%s %%" %moist, "to
IBM Watson")

 success =
deviceCli.publishEvent("IoTSensor",
"json", data,
qos=0,  on_publish=myOnPublishCallback
)
 if not success:
 print("Not connected to IoTF")
 time.sleep(10)

 deviceCli.commandCallback = myCommandCallback

# Disconnect the device and application from the cloud
deviceCli.disconnect()
```

OUTPUT:

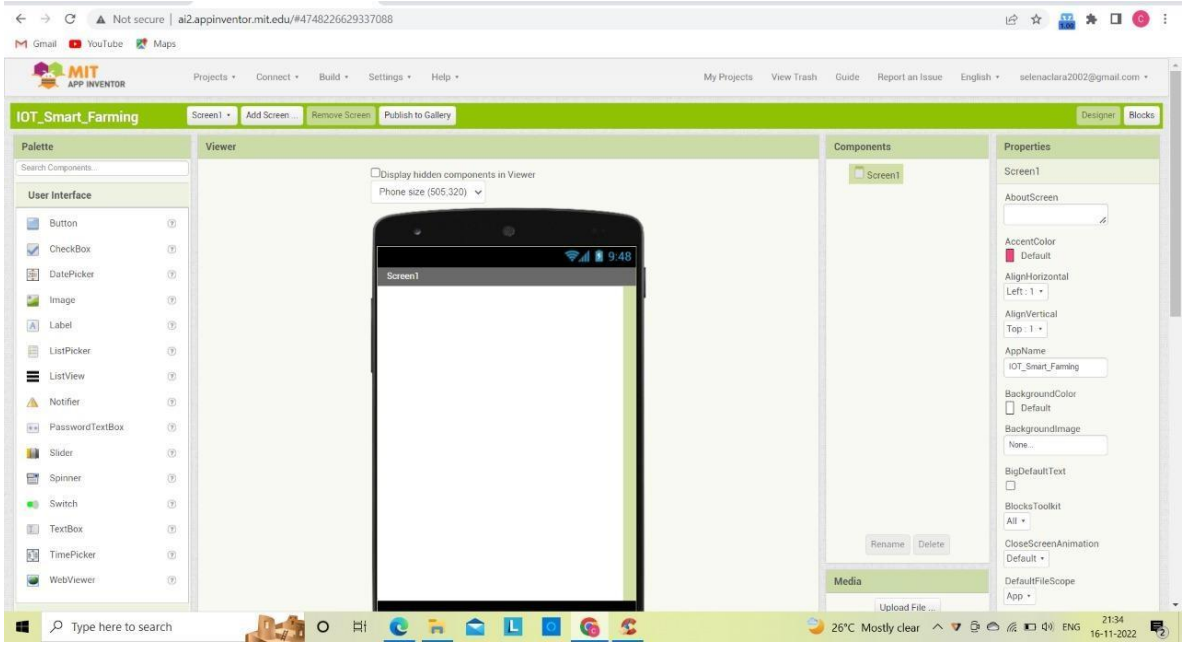
Connect Sensor in ESP8266

CIRCUIT DIAGRAM:

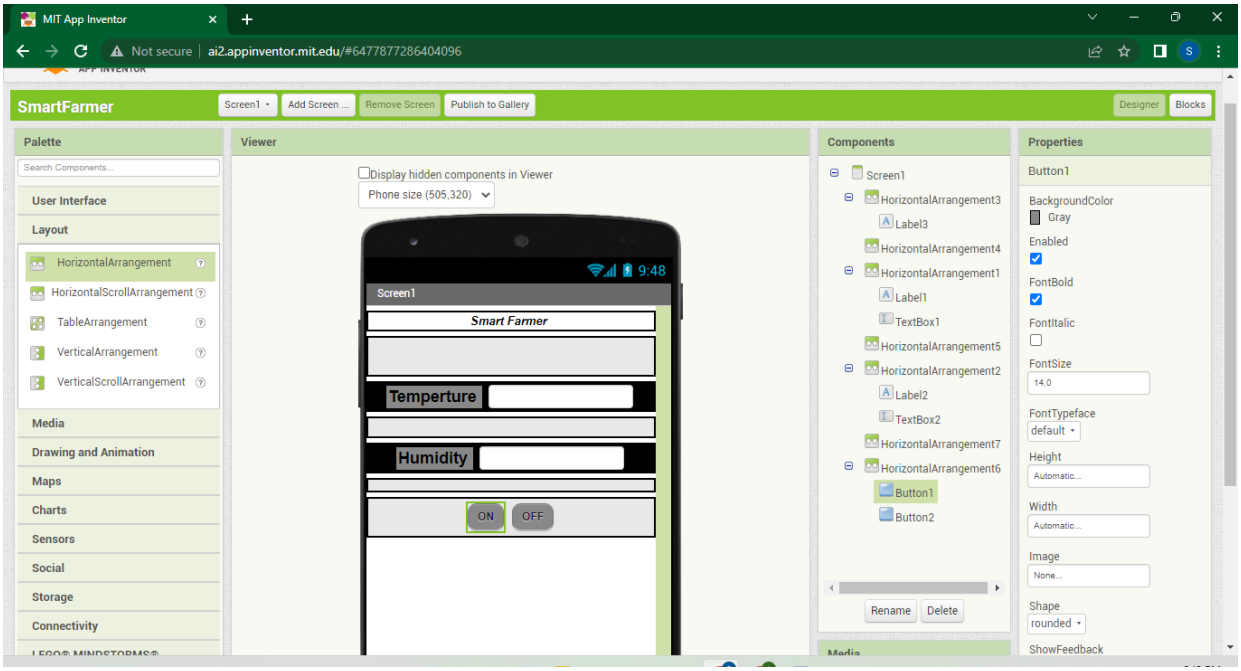


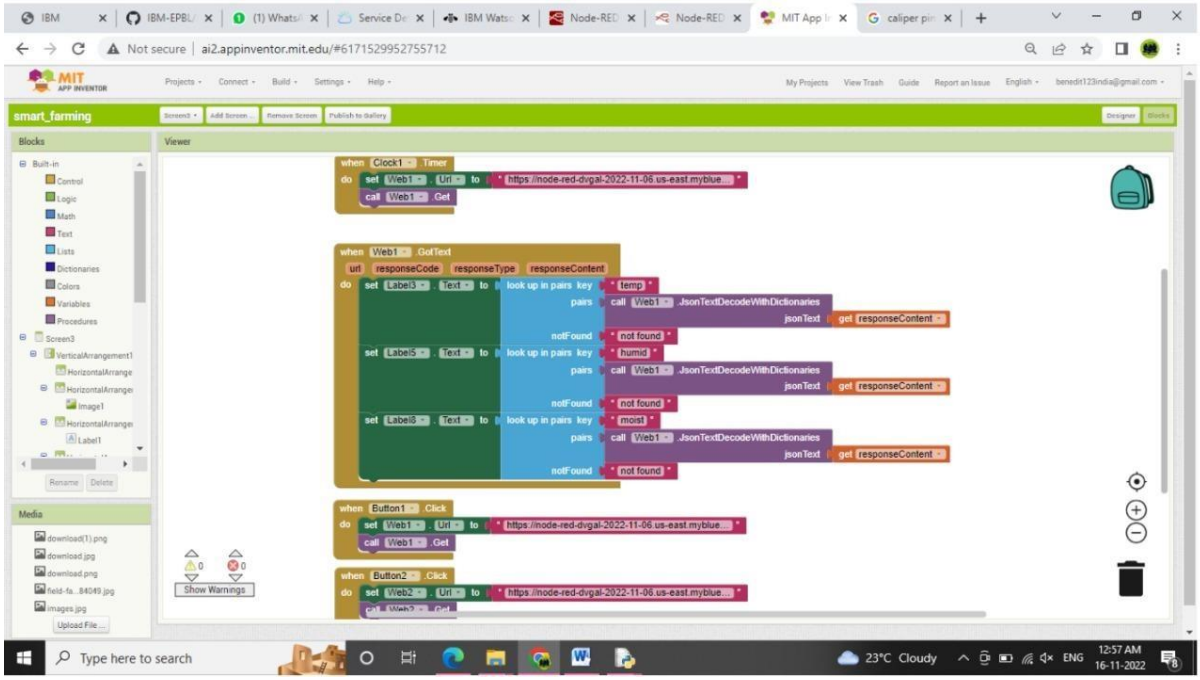
Develop an application with MIT APP inventor:

Mobile App opening page:



Mobile App Log in Page:





JIRA Software Sprint Planning: