Assignment-4

PythonProgramming

AssignmentDate	02 November2022
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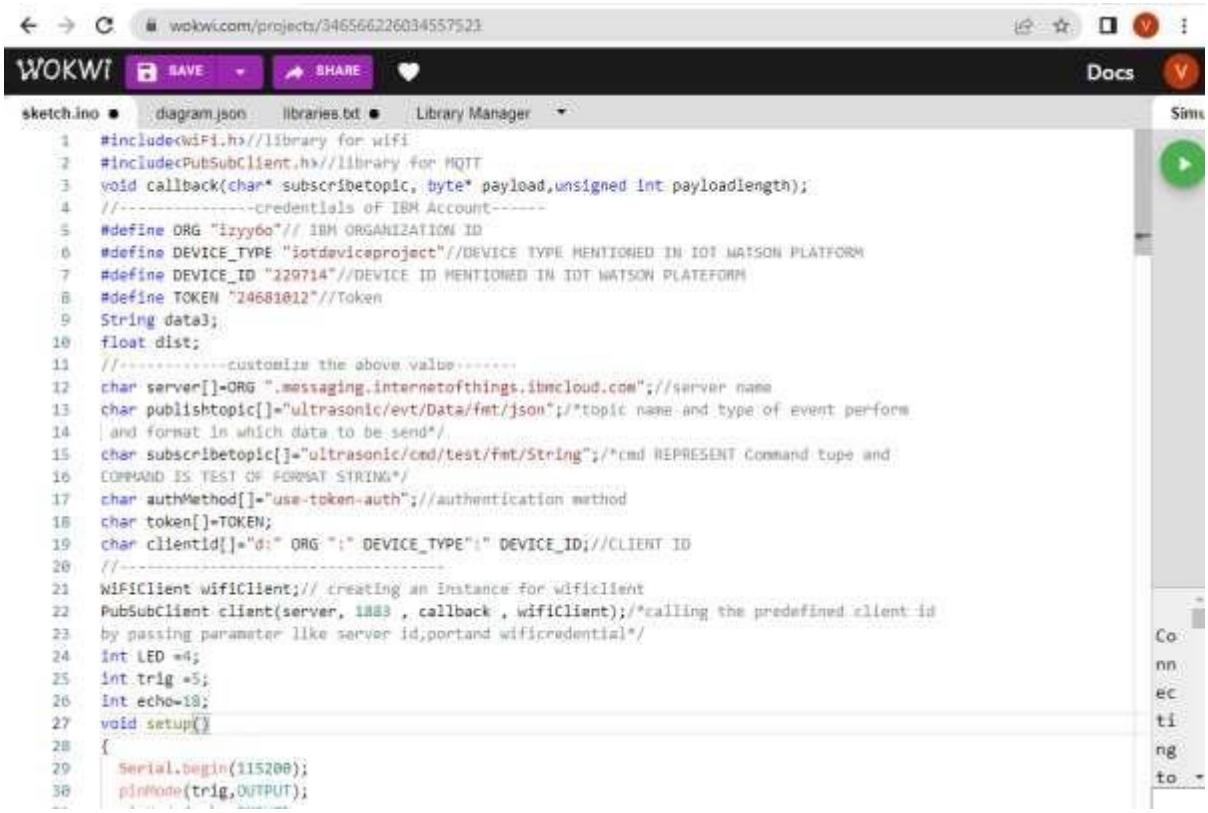
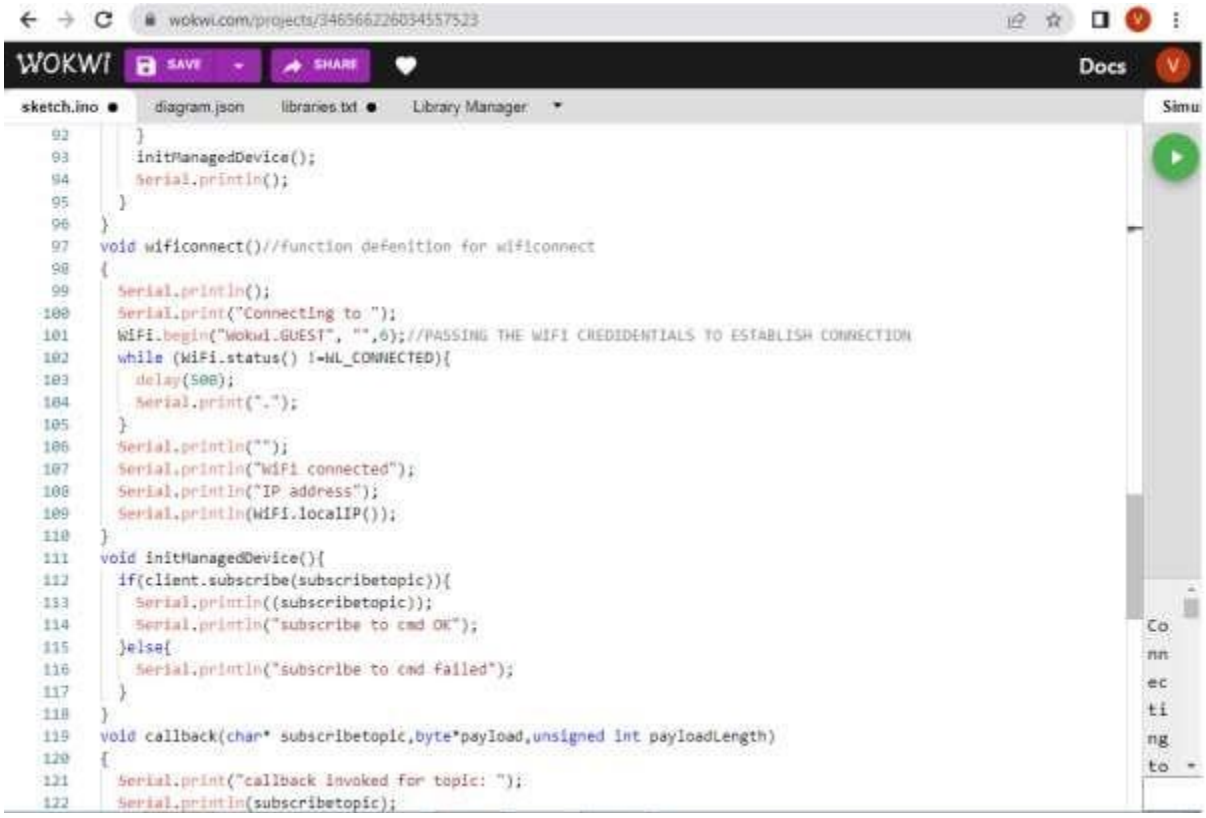
MaximumMarks	2 Marks

Question-1:

Write code and connections in wokwi for ultrasonic sensor.
Whenever distance is less than 100 cms send "alert" to ibm cloud and display in device recentevents.
Upload document with wokwi share link and images of ibm cloud.

Solution:




wokwi.com/projects/346566226034557523
WOKWI
SAVE
SHARE
Docs
sketch.ino
diagram.json
libraries.txt
Library Manager
Simu
}
initManagedDevice();
Serial.println();
}
}
void wificonnect()//function defenition for wificonnect
{
Serial.println();
Serial.print("Connecting to ");
WiFi.begin("Wokwi-GUEST", "",6);//PASSING THE WIFI CREDIDENTIALS TO ESTABLISH CONNECTION
while (WiFi.status() !=WL_CONNECTED){
delay(500);
Serial.print(".");
}
Serial.println("");
Serial.println("WiFi connected");
Serial.println("IP address");
Serial.println(WiFi.localIP());
}
void initManagedDevice(){
if(client.subscribe(subscribetopic)){
Serial.println((subscribetopic));
Serial.println("subscribe to cmd OK");
}else{
Serial.println("subscribe to cmd failed");
}
}
void callback(char* subscribetopic,byte*payload,unsigned int payloadLength)
{
Serial.print("callback invoked for topic: ");
Serial.println(subscribetopic);
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wokwi.com/projects/346566226034557523

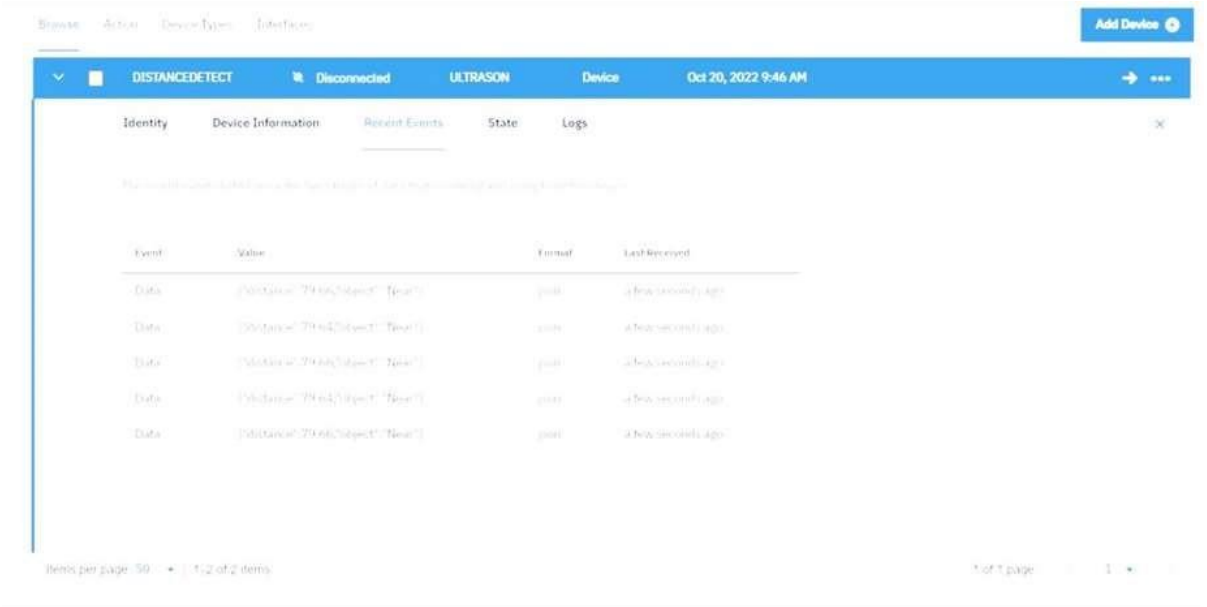
WOKWI SAVE SHARE

sketch.ino ● diagram.json libraries.txt ● Library Manager

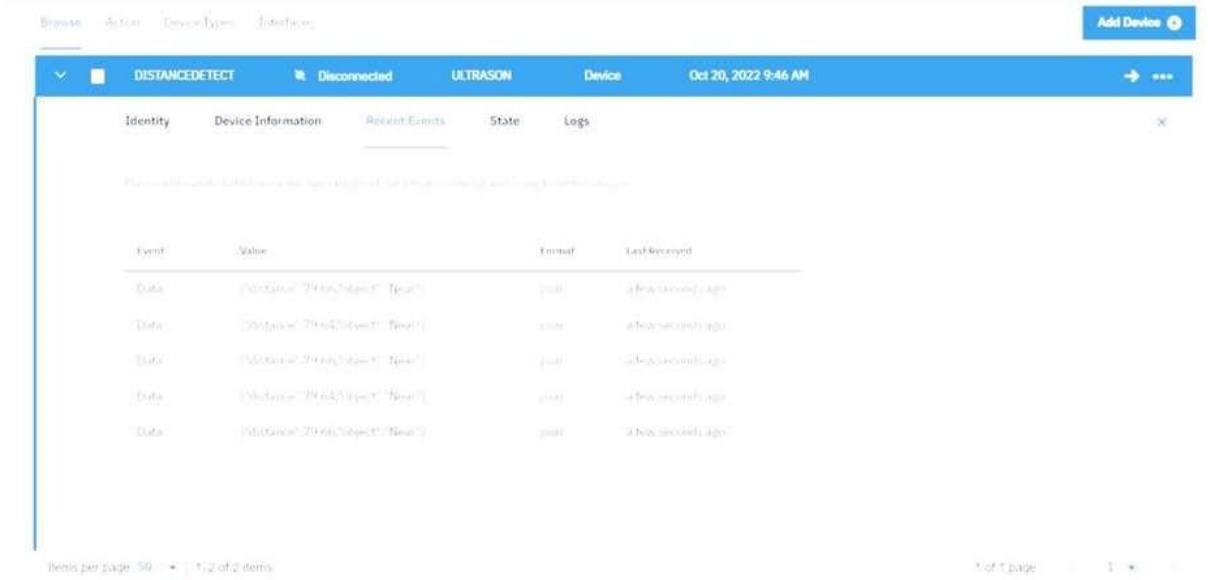
```
for(int i=0; i< payloadLength; i++){
  //Serial.print((char)payload[i]);
  data3 +=(char)payload[i];
}
//Serial.println("dta: "+ data3);
//if(data3=="Near")
//{
//Serial.println(data3);
//digitalWrite(LED,HIGH);
//}
//else
//{
//Serial.println(data3);
//digitalWrite(LED,LOW);
//}
data3="";
}
```

OUTPUT:

DATAISSENTTOIBMCLOUDWHENNO OBJECTISDETECTED



Whennoobject isdetected



Whenobjectis detected inultrasonic detector