SPRINT - 1

Project Title:	Personal Assistant for Senior Citizen
Team ID:	PNT2022TMID50622

Created IOT device config in IBM IOT watson
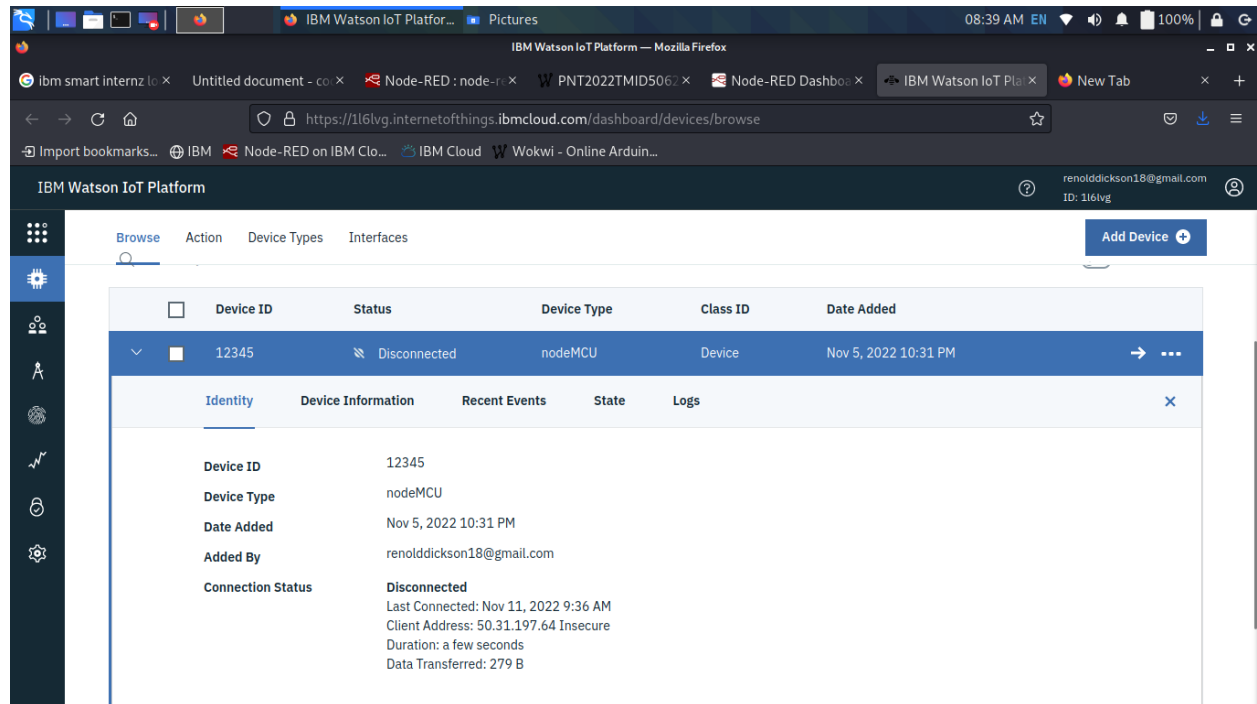
Connected IBM IOT watson cloud with wokwi(nodemcu)

Wokwi url: https://wokwi.com/projects/347406552336958036

Code:

```
#include<WiFi.h>//library for wifi module
#include<PubSubClient.h>//library for MQTT
void callback(char* subscribetopic, byte* payload,unsigned int payloadlength);
//---------------credentials of IBM Account------
#define ORG "twoqgm"// IBM ORGANIZATION ID
#define DEVICE_TYPE "nodemcu"//DEVICE TYPE MENTIONED IN IOT WATSON PLATFORM
#define DEVICE_ID "11111"//DEVICE ID MENTIONED IN IOT WATSON PLATEFORM
#define TOKEN "XsgsvH8+*w4p2Y_XQO"//Token
String data3;
```
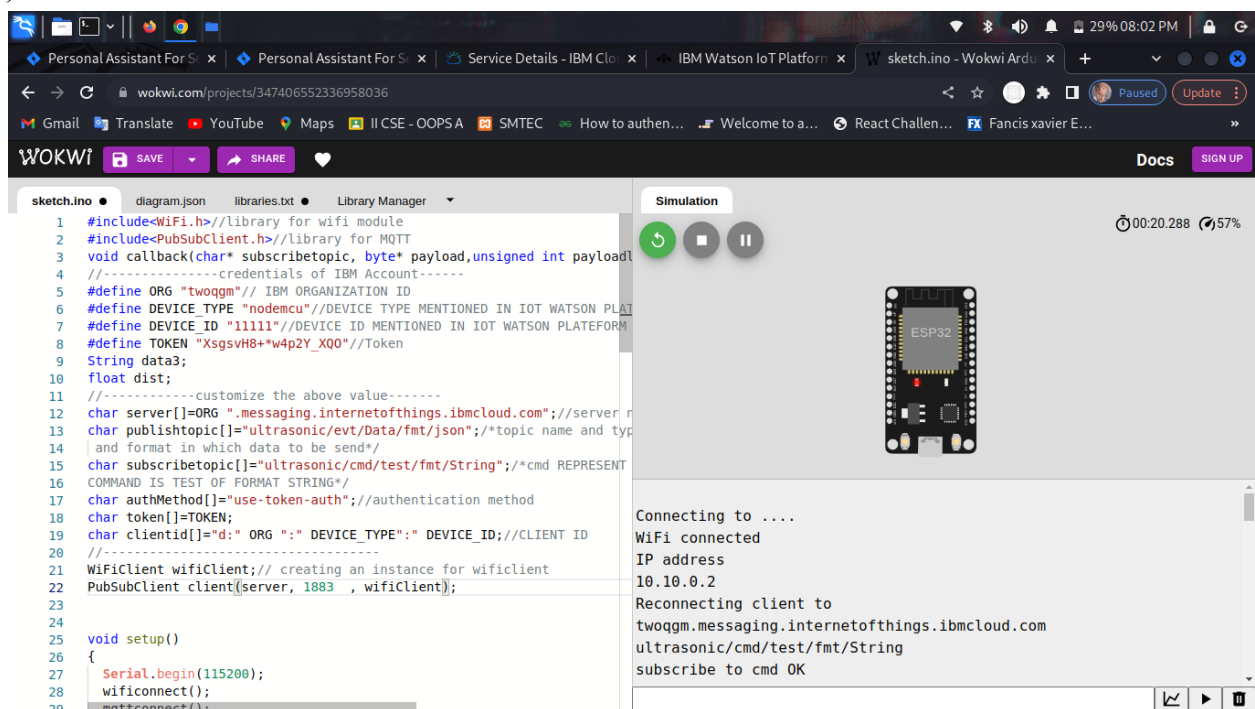
```
float dist;
//-----------customize the above value-------
char server[]=ORG ".messaging.internetofthings.ibmcloud.com";//server name
char publishtopic[]="ultrasonic/evt/Data/fmt/json";/*topic name and type of event perform
and format in which data to be send*/
char subscribetopic[]="ultrasonic/cmd/test/fmt/String";/*cmd REPRESENT Command tupe and
COMMAND IS TEST OF FORMAT STRING*/char authMethod[]="use-token-auth";//authentication
method
char token[]=TOKEN;
char clientid[]="d:" ORG ":" DEVICE_TYPE":" DEVICE_ID;//CLIENT ID
//----------------------------------
WiFiClient wifiClient;// creating an instance for wificlient
PubSubClient client(server, 1883 , wifiClient);
void setup()
{
Serial.begin(115200);
wificonnect();
mqttconnect();
}
void loop()//recursive function
{
if (!client.loop()){
mqttconnect();
}
}
/*...........................retriving to cloud.....................*/
void mqttconnect(){
if(!client.connected()){
Serial.print("Reconnecting client to ");
Serial.println(server);
while(!!!client.connect(clientid,authMethod, token)){
Serial.print(".");
delay(500);
}
initManagedDevice();
Serial.println();
}
else{
Serial.println("Connected :)");
}
}
void wificonnect()//function defenition for wificonnects
{
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");
}
}
```

Jira process:

Url: https://pnt2022tmid50622.atlassian.net/jira/software/projects/PAFSCII/boards/1

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