PROJECT DEVELOPMENT PHASE

Sprint - 4

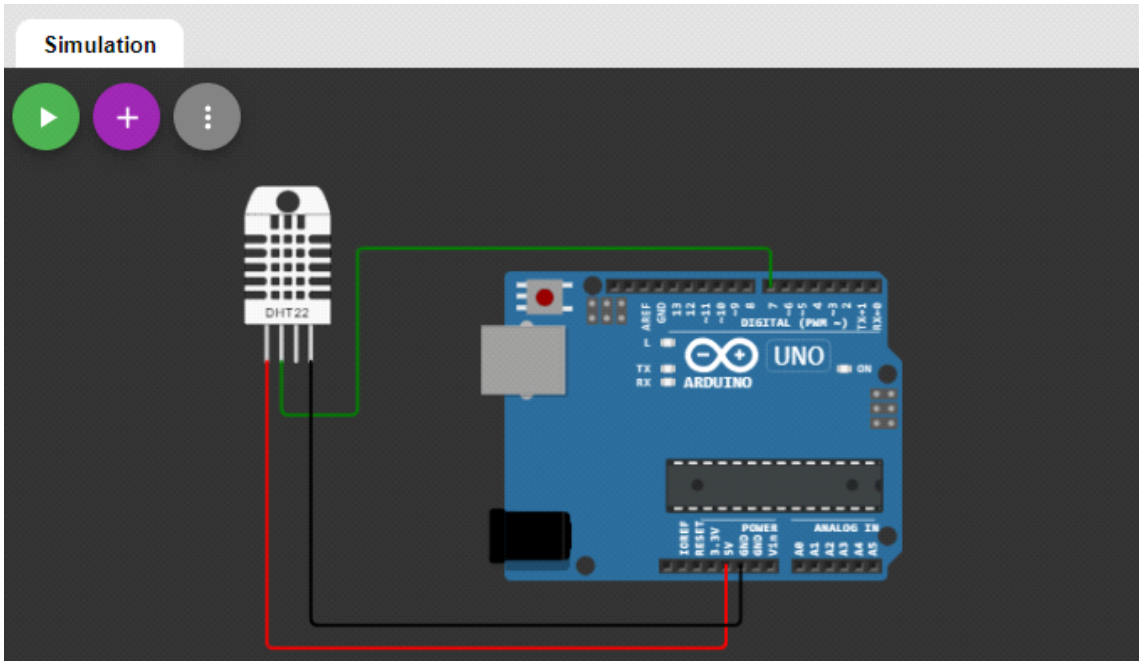
TEAM ID : PNT2022TMID08447

PROJECT NAME : Smart Farmer - IoT Enambled Smart Farming

Simulation:

- Simulation using the online simulator "Wokwi".
- Using of " ARDUINO UNO " with "DHT22" .
- DHT22 is used for monitering the temprature and Humidity.

Circuit:

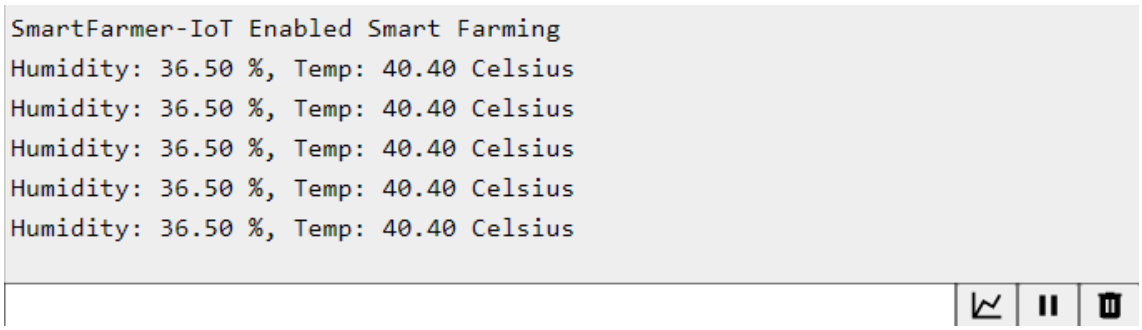


Coding:

```
/* DHT-22 sensor with Arduino uno
   Temperature and humidity sensor
*/

//Libraries
#include <DHT.h>;

//Constants
#define DHTPIN 7     // what pin we're connected to
#define DHTTYPE DHT22   // DHT 22  (AM2302)
DHT dht(DHTPIN, DHTTYPE); //// Initialize DHT sensor for normal 16mhz Arduino


//Variables
int chk;
float hum;  //Stores humidity value
float temp; //Stores temperature value

void setup() {
```

```
  // put your setup code here, to run once:
    Serial.begin(9600);
    dht.begin();
    Serial.print("SmartFarmer-IoT Enabled Smart Farming\n");
}


void loop() {
  // put your main code here, to run repeatedly:
    delay(1000);
    //Read data and store it to variables hum and temp
    hum = dht.readHumidity();
    temp= dht.readTemperature();
    //Print temp and humidity values to serial monitor
    Serial.print("Humidity: ");
    Serial.print(hum);
    Serial.print(" %, Temp: ");
    Serial.print(temp);
    Serial.println(" Celsius");
    delay(1000);
}
```

Output:


SmartFarmer-IoT Enabled Smart Farming
Humidity: 36.50 %, Temp: 40.40 Celsius
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