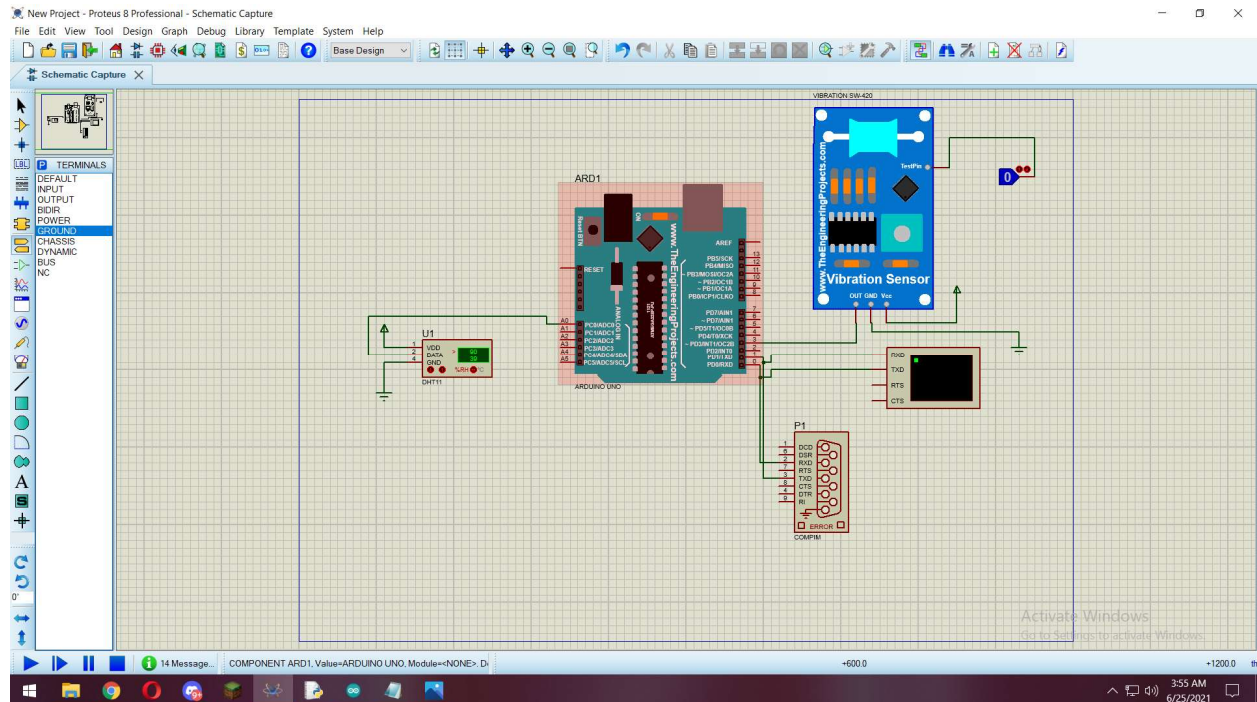
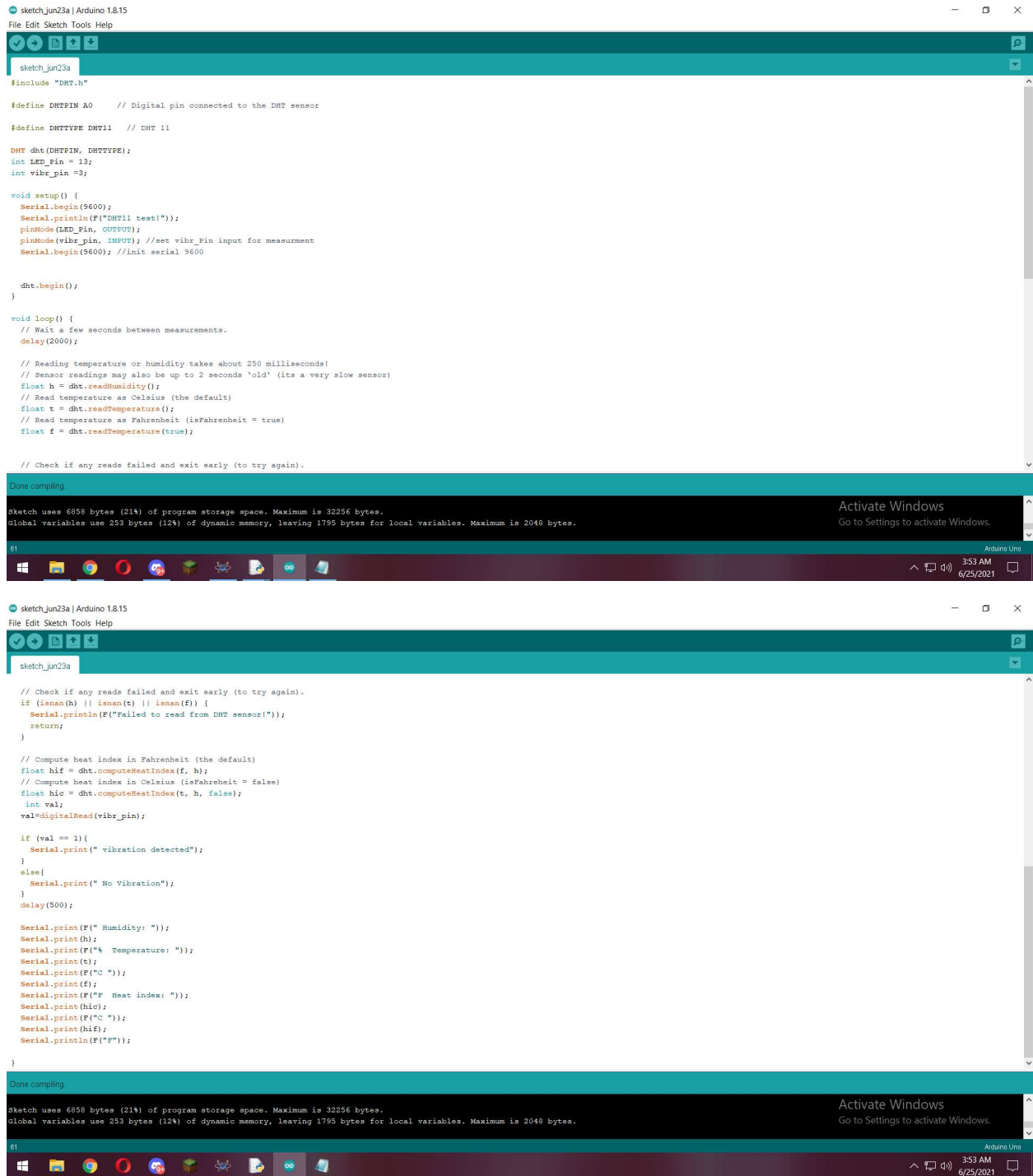


TASK 2&3

A. Fullscreen Screenshot of proteus.



B. Screenshot of complete Arduino code.



```
sketch_jun23a | Arduino 1.8.15
File Edit Sketch Tools Help

sketch_jun23a
#include "DHT.h"

#define DHTPIN A0 // Digital pin connected to the DHT sensor

#define DHTTYPE DHT11 // DHT 11

DHT dht(DHTPIN, DHTTYPE);
int LED_Pin = 13;
int vibr_pin = 3;

void setup() {
  Serial.begin(9600);
  Serial.println(F("DHT11 test!"));
  pinMode(LED_Pin, OUTPUT);
  pinMode(vibr_pin, INPUT); //set vibr pin input for measurement
  Serial.begin(9600); //init serial 9600
}

dht.begin();

void loop() {
  // Wait a few seconds between measurements.
  delay(2000);

  // Reading temperature or humidity takes about 250 milliseconds!
  // Sensor readings may also be up to 2 seconds 'old' (its a very slow sensor)
  float h = dht.readHumidity();
  // Read temperature as Celsius (the default)
  float t = dht.readTemperature();
  // Read temperature as Fahrenheit (isFahrenheit = true)
  float f = dht.readTemperature(true);

  // Check if any reads failed and exit early (to try again).

  Done compiling.
  Sketch uses 6898 bytes (21% of program storage space. Maximum is 32256 bytes.
  Global variables use 253 bytes (12% of dynamic memory, leaving 1795 bytes for local variables. Maximum is 2048 bytes.
  Activate Windows
  Go to Settings to activate Windows.
  3:53 AM
  6/25/2021

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sketch_jun23a

// Check if any reads failed and exit early (to try again).
if (isnan(h) || isnan(t) || isnan(f)) {
  Serial.println(F("Failed to read from DHT sensor!"));
  return;
}

// Compute heat index in Fahrenheit (the default)
float hif = dht.computeHeatIndex(f, h);
// Compute heat index in Celsius (isFahrenheit = false)
float hic = dht.computeHeatIndex(t, h, false);
int val;
val=digitalRead(vibr_pin);

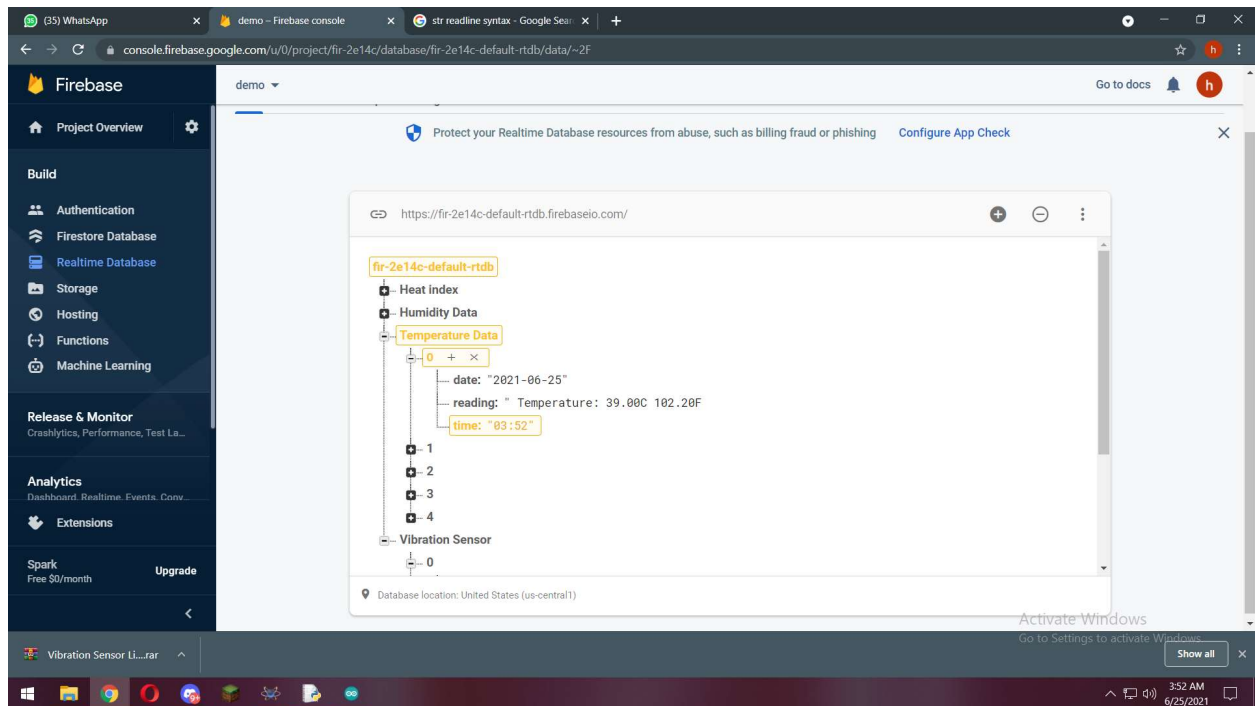
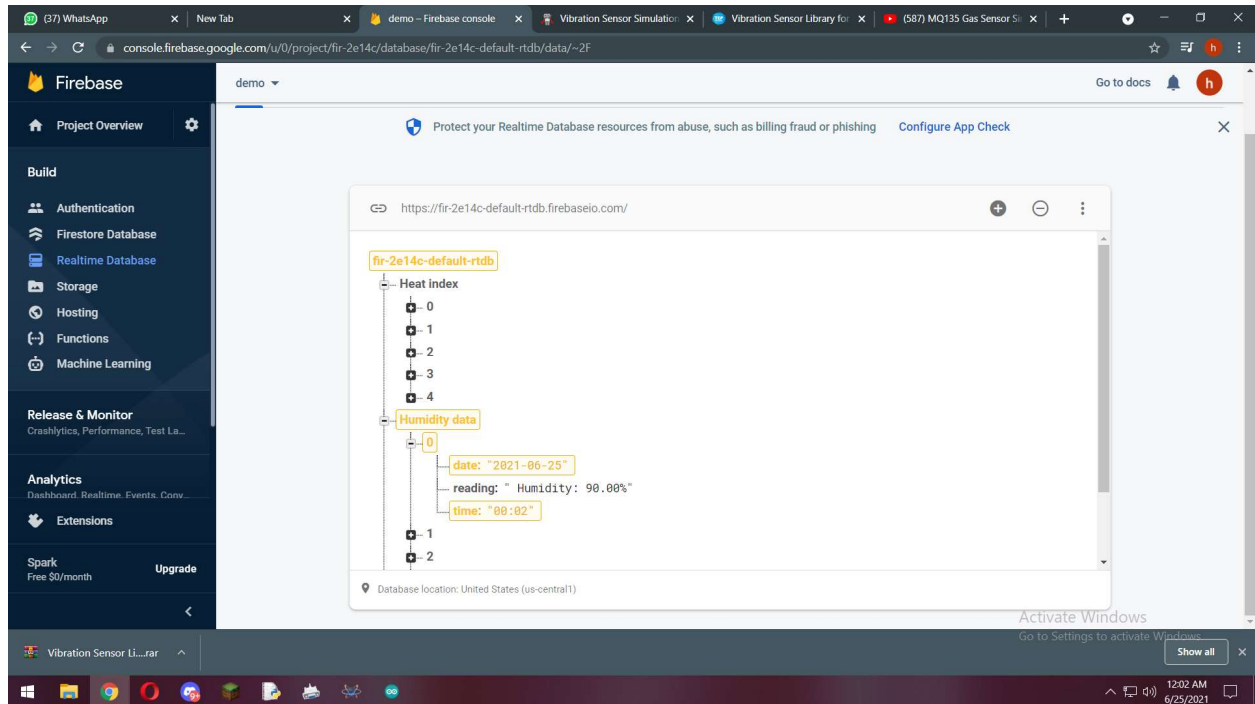
if (val == 1){
  Serial.print(" vibration detected");
}
else{
  Serial.print(" No Vibration");
}
delay(500);

Serial.print(F(" Humidity: "));
Serial.print(h);
Serial.print(F("% Temperature: "));
Serial.print(t);
Serial.print(F("°C "));
Serial.print(f);
Serial.print(F("°F Heat index: "));
Serial.print(hic);
Serial.print(F("°C "));
Serial.print(hif);
Serial.println(F("°F"));

}

Done compiling.
Sketch uses 6898 bytes (21% of program storage space. Maximum is 32256 bytes.
Global variables use 253 bytes (12% of dynamic memory, leaving 1795 bytes for local variables. Maximum is 2048 bytes.
Activate Windows
Go to Settings to activate Windows.
3:53 AM
6/25/2021
```

C. Data uploaded on firebase.(Firebase Window)



D. Screenshot of proteus while simulation.

