**Internet of Things**

**Lab Practical No. 2**

**Code:**

import BlynkLib

import Adafruit\_DHT

import time

# Initialize Blynk with your authentication token

BLYNK\_AUTH = '-nWJL6oI4VjVMifsgG\_1DvvR0RRc9Kei'

blynk = BlynkLib.Blynk(BLYNK\_AUTH)

# DHT11 sensor setup

DHT\_SENSOR = Adafruit\_DHT.DHT11

DHT\_PIN = 4 # GPIO pin where the DHT11 sensor is connected

# Function to read data from the DHT11 sensor

def read\_dht\_sensor():

humidity, temperature = Adafruit\_DHT.read\_retry(DHT\_SENSOR,

DHT\_PIN)

return humidity, temperature

# Function to update Blynk virtual pins with sensor data

def update\_blynk():

while True:

humidity, temperature = read\_dht\_sensor()

if humidity is not None and temperature is not None:

# Update Blynk virtual pins with sensor data

blynk.virtual\_write(1, humidity) # V1 for humidity

blynk.virtual\_write(2, temperature) # V2 for temperature

print(f"Temperature: {temperature}°C, Humidity:

{humidity}%")

else:

print("Failed to read data from the DHT11 sensor.")

time.sleep(5) # Update Blynk every 5 seconds

# Start the Blynk connection

blynk.run()

# Start updating Blynk virtual pins with sensor data

update\_blynk()

**OUTPUT/CIRCUIT DIAGRAM:**



