NALAIYA THIRAN
WEEK 5 REPORT

Phase 3 Description: Project Design Phase -I (Proposed Solution, ProblemSolution Fit, Solution Architecture)

3.1 Prepare the proposed solution document, which includes the novelty, feasibility of idea, business model, social impact, scalability of solution, etc.

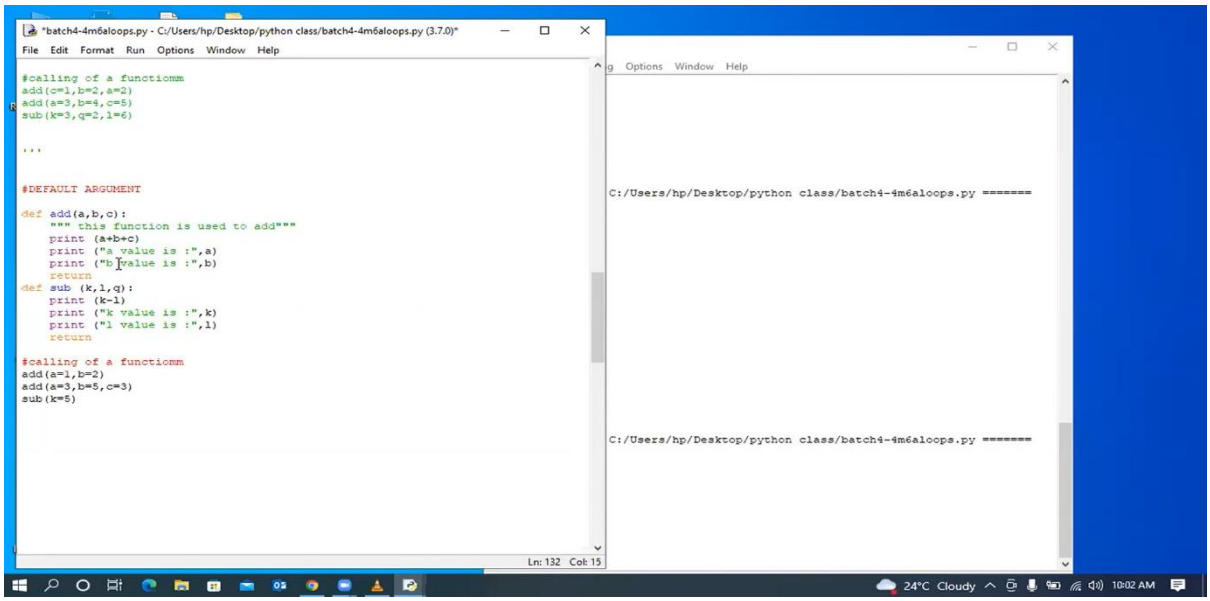
Proposed Solution

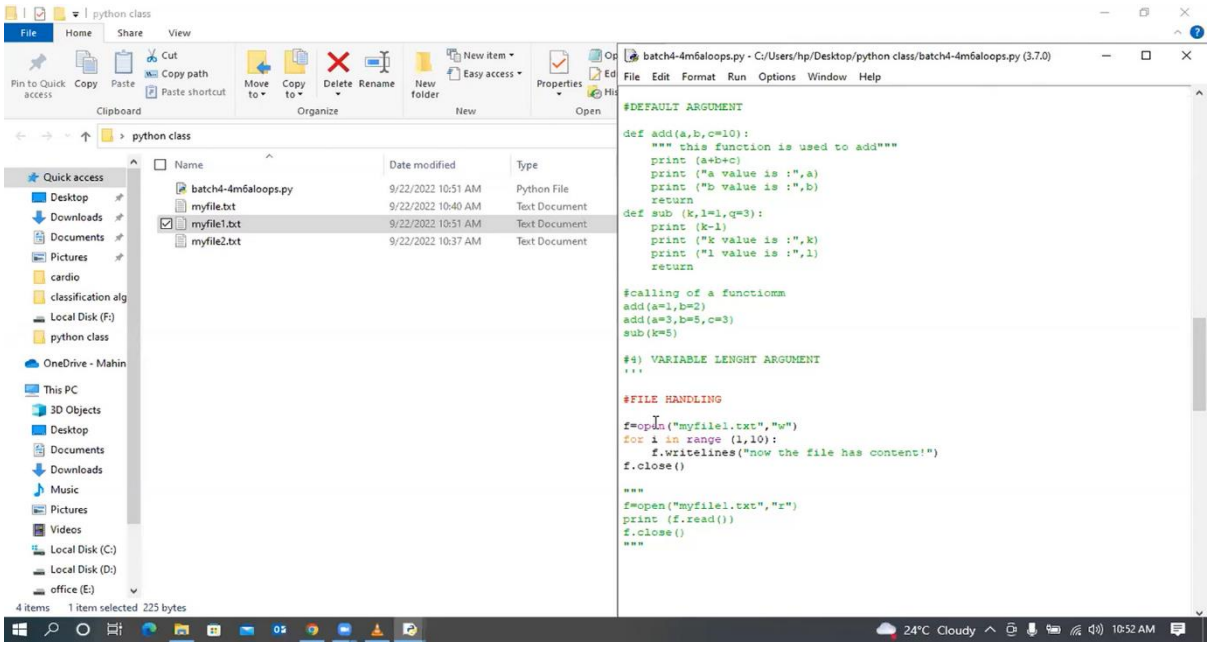
S.No.	Parameter	Description
1.	Problem Statement (Problem to be solved)	With the increasing rate of child kidnapping and trafficking and lack of tracking technology for child, there is limited application for child monitoring. Hence an **IoT based safety gadget** for child safety is probably the need of the hour today
2.	Idea / Solution description	A good solution to this issue would be to design a smart wearable Internet of Things sensor based device for monitoring the environment of a child along with a mechanism for tracking the child. The gadget will make use of **GPS and** a python script to publish the location details to the IBM IoT platform. The wearable also functions to send **immediate alerts** to the user through in case if the child crosses the geofence.
3.	Novelty / Uniqueness	All the existing systems make use of GPS and a mobile app to track and receive alerts regarding the child's location, while this system make use of the IBM Watson IOT Platform and IBM Cloud Services which is reliable and efficient to maintain the database of the child's location. The parent can set geofence and receive alerts through the web application which is user friendly and secure created using the Node Red Service. .

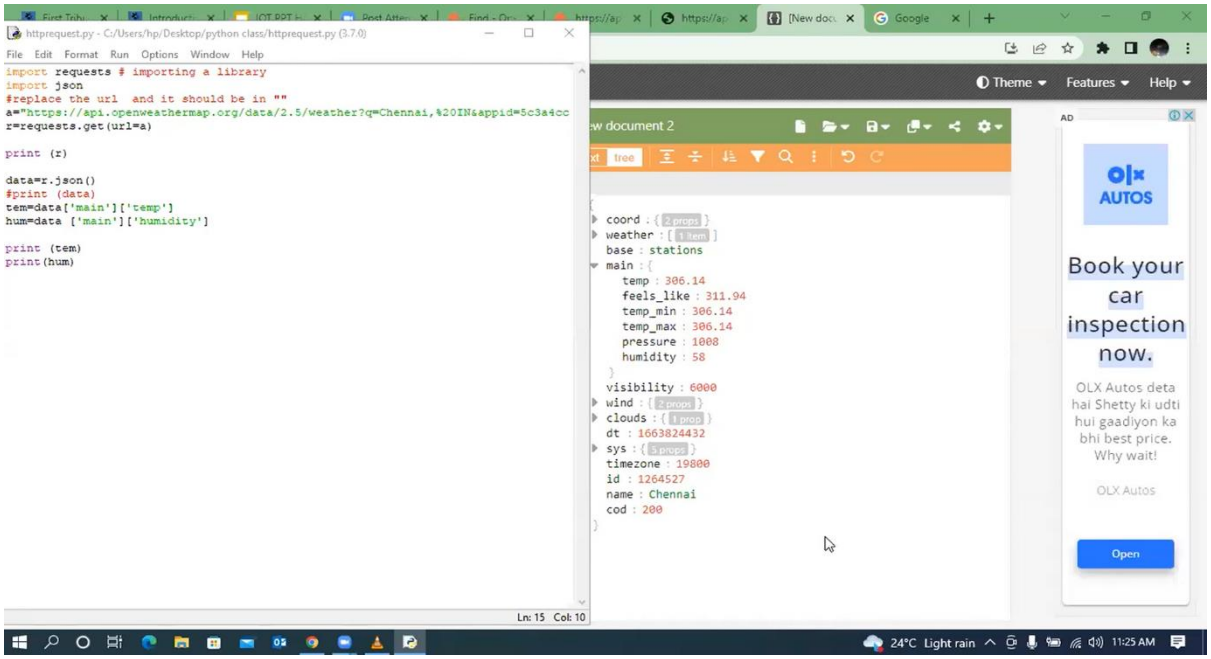
4.	Social Impact / Customer Satisfaction	The main concern of any parent would be the safety and security of their kids. The design of this model does not mandate a lot of technical knowledge from the user to operate and it is simple. The purpose of this device is to facilitate the guardian or parents in locating their child with ease and ensuring its well-being.
5.	Business Model (Revenue Model)	The target audience of this device is majorly the parents. Considering the Tracking ability of the device, **Hardware quality, used technology and sensors,** the starting range of price would go from Rs. 6000 and above. This type of wearable safety system is of utmost importance today and would be a must buy gadget in the market today.
6.	Scalability of the Solution	With the present needs for monitoring the child, the system is designed. It has a location database to maintain the entire location history of the child and the parent can set the geofence to determine the safer boundary of the child. . If there is a need for integrating additional sensors to improve accuracy, it can be done to make the system efficient in the long run.

3.2 Attend the technology trainings as per the training calendar

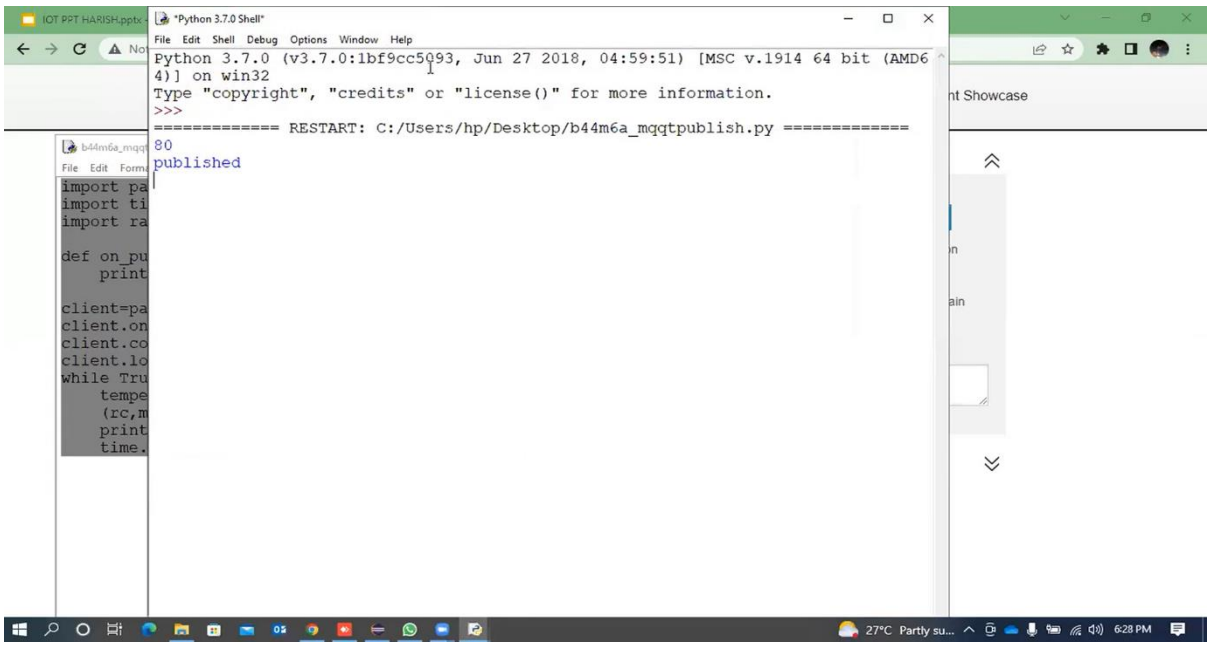
IoT-B4-4M6E (Morning Session)-Day-7 (22.09.2022)

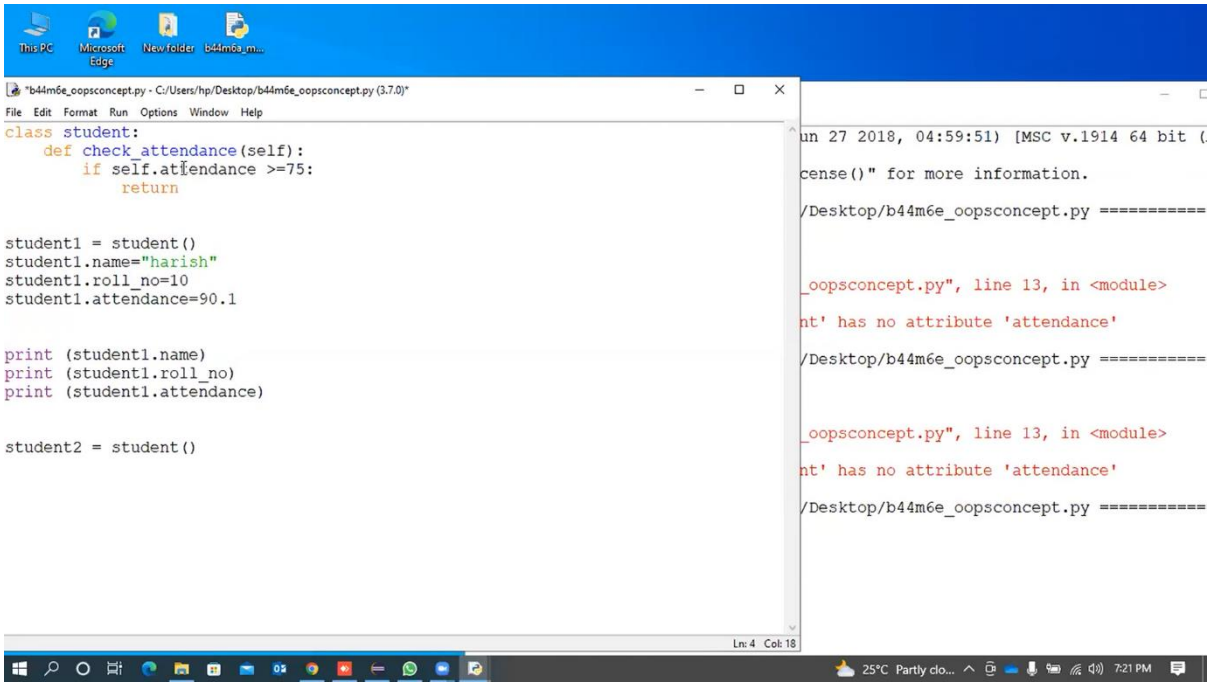


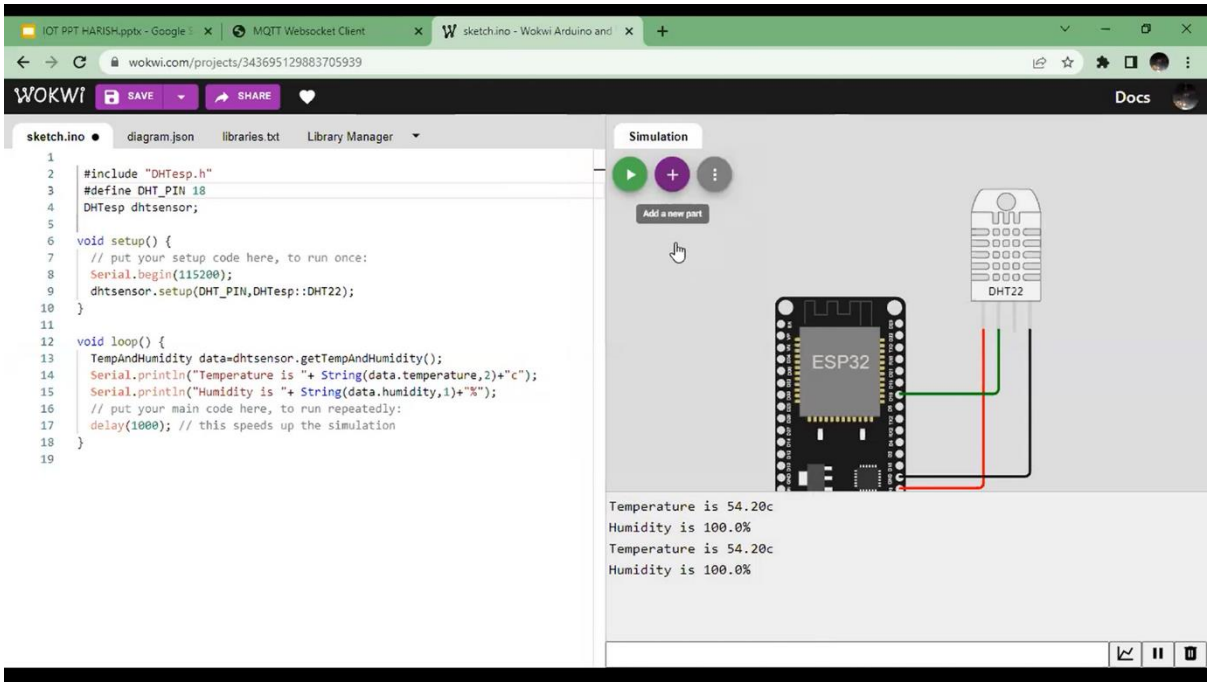

python class
File Home Share View
Cut
Copy path
Paste shortcut
Pin to Quick access
Copy
Paste
Move to
Copy to
Delete
Rename
New folder
New item
Easy access
Properties
Clipboard
Organize
New
Open
python class
Quick access
Desktop
Downloads
Documents
Pictures
cardio
classification alg
Local Disk (F:)
python class
OneDrive - Mahin
This PC
3D Objects
Desktop
Documents
Downloads
Music
Pictures
Videos
Local Disk (C:)
Local Disk (D:)
office (E:)
Name
Date modified
Type
batch4-4m6aloops.py 9/22/2022 10:51 AM Python File
myfile.txt 9/22/2022 10:40 AM Text Document
myfile1.txt 9/22/2022 10:51 AM Text Document
myfile2.txt 9/22/2022 10:37 AM Text Document
4 items 1 item selected 225 bytes
batch4-4m6aloops.py - C:/Users/hp/Desktop/python class/batch4-4m6aloops.py (3.7.0)
File Edit Format Run Options Window Help
#DEFAULT ARGUMENT
def add(a,b,c=10):
"""this function is used to add"""
print (a+b+c)
print ("a value is :",a)
print ("b value is :",b)
return
def sub (k,l=1,q=3):
print (k-1)
print ("k value is :",k)
print ("l value is :",l)
return
#calling of a functionm
add(a=1,b=2)
add(a=3,b=5,c=3)
sub(k=5)
#4) VARIABLE LENGHT ARGUMENT
'''
#FILE HANDLING
f=open("myfile1.txt","w")
for i in range (1,10):
f.writelines("now the file has content!")
f.close()
"""
f=open("myfile1.txt","r")
print (f.read())
f.close()
"""
24°C Cloudy
10:52 AM


httprequest.py - C:/Users/hp/Desktop/python class/httprequest.py (3.7.0)
File Edit Format Run Options Window Help
import requests # importing a library
import json
#replace the url and it should be in ""
a="https://api.openweathermap.org/data/2.5/weather?q=Chennai,%20IN&appid=5c3a4cc
r=requests.get(url=a)
print (r)
data=r.json()
#print (data)
tem=data['main']['temp']
hum=data ['main']['humidity']
print (tem)
print(hum)
Ln: 15 Col: 10
Theme
Features
Help
w document 2
coord : { 2 props }
weather : [1 item]
base : stations
main : {
temp : 306.14
feels_like : 311.94
temp_min : 306.14
temp_max : 306.14
pressure : 1008
humidity : 58
}
visibility : 6000
wind : { 2 props }
clouds : { 1 prop }
dt : 1663824432
sys : { 5 props }
timezone : 19800
id : 1264527
name : Chennai
cod : 200
AD
OLX AUTOS
Book your car inspection now.
OLX Autos deta hai Shetty ki udti hui gaadiyon ka bhi best price. Why wait!
OLX Autos
Open
24°C Light rain
11:25 AM

IoT-B4-4M6E (Morning Session)-Day-8 (22.09.2022)






IOT PPT HARISH.pptx - Google
MQTT Websocket Client
sketch.ino - Wokwi Arduino and
wokwi.com/projects/343695129883705939
WOKWI
SAVE
SHARE
Docs
sketch.ino
diagram.json
libraries.txt
Library Manager
#include "DHTesp.h"
#define DHT_PIN 18
DHTesp dhtsensor;
void setup() {
// put your setup code here, to run once:
Serial.begin(115200);
dhtsensor.setup(DHT_PIN,DHTesp::DHT22);
}
void loop() {
TempAndHumidity data=dhtsensor.getTempAndHumidity();
Serial.println("Temperature is "+ String(data.temperature,2)+"c");
Serial.println("Humidity is "+ String(data.humidity,1)+"%");
// put your main code here, to run repeatedly:
delay(1000); // this speeds up the simulation
}
Simulation
Add a new part
ESP32
DHT22
Temperature is 54.20c
Humidity is 100.0%
Temperature is 54.20c
Humidity is 100.0%