SPRINT-I

PROJECT DEVELOPMENT PHASE

DATE	**28 OCTOBER 2022**
TEAM ID	**PNT2022TMID49552**
PROJECT NAME	**REAL TIME RIVER WATER QUALITY MONITORING AND CONTROL SYSTEM**

PYTHON COADING:

```
import datetime as dt

import time
import board
import busio
from anyleaf import Phsensor,onboard
loop_Delay=60*5
LOG_FILENAME=”Ph_readings.CSV”
Def main()
I2c=busio.I2c(board.SCL,board.SDA)
Ph_sensor=phsensor(i2c,Loop_DELAY)
While True:
  Ph=ph_Sensor.read(Onboard())
  Timestamp=db.datetime.now()
  With open(LOG_FILENAME,’a’)as F:
  F.write(F”{timestamp.isoformat()},{round(ph,2)}\n”)
  time sleep(LOOP_DELAY)
if_name_==_main”;
  main()

import CSV
import datetime as dt
import matplotlib.pyplot as plt
LOG_FILENAME=”ph_readings.CSV”
Def main():
  “””Plot readings over time,from a CSV log file.”””
 timestamps=[]
 readings=[]
 with open(LOG_FILENAME) as F:
 reader=CSV.reader(F)
 for(timestamp,ph) in reader
 timestamps.append(dt.datatime,from isoformat(timestamp))
 readings.append(float(ph))
```

```
fig.ax=plt.subplots()
ax.plot(timestamps,readings)
ax.Set_title(“pH over time”)
ax.Set_xlabel(‘Date and time of readings’)
ax.Set_ylabel(‘pH’)
ax.Set_lim(6,8)
plt.show()
```