

# SPRINT 3

## PYTHON

TEAM ID	PNT2022TMID36752
PROJECT NAME	REAL-TIME RIVER WATER QUALITY MONITORING AND CONTROL SYSTEM
TEAM LEADER	DHARANIKUMAR.B
TEAM MEMBER 1	HARI.N
TEAM MEMBER 2	JAYACHANDRAN.R
TEAM MEMBER 3	JOHN YABAZ.S
TEAM MEMBER 4	SURESH.S

## PYTHON CODE

```
IDLE Shell 3.10.5
File Edit Shell Debug Options Window Help
>>> for i in range(5):
...     print("Test case:",i+1)
...     print("Welcome to Real-Time River Water Quality Monitoring and Control System")
...     temperature=int(rand.randint(-40,125))
...     pH=int(rand.randint(0,14))
...     DO=int(rand.randint(0,100))
...     TSS=int(rand.randint(0,3700))
...     Manganese=int(rand.randint(0,1000))
...     Copper=int(rand.randint(0,2000))
...     ammonia_Nitrate=int(rand.randint(0,100))
...     Hardness=int(rand.randint(0,1000))
...     Zinc=int(rand.randint(0,100))
...     Conductivity= f"{float(rand.uniform(0.001,2000)):.2f}"
...     Chloride=int(rand.randint(0,200))
...     Sulphate=int(rand.randint(0,1000))
...     #These variables stores value of random data to be shared to the cloud
...     #printing the values
...     print(
...         "Temperature:",temperature,
...         "\npH:",pH,
...         "\nDO:",DO,
...         "\nTSS:",TSS,
...         "\nManganese:",Manganese,
...         "\nCopper:",Copper,
...         "\nAmmonia & Nitrate:",ammonia_Nitrate,
...         "\nHardness:",Hardness,
...         "\nZinc:",Zinc,
...         "\nConductivity:",Conductivity,
...         "\nChloride:",Chloride,
...         "\nSulphate:",Sulphate,"\n"
...     )
...
...
Test case: 1
Welcome to Real-Time River Water Quality Monitoring and Control System
Temperature: 101
pH: 0
DO: 20
TSS: 3020
Manganese: 234
Copper: 704
```

## OUTPUT:

```
IDLE Shell 3.10.5
File Edit Shell Debug Options Window Help
...
Test case: 1
Welcome to Real-Time River Water Quality Monitoring and Control System
Temperature: 101
pH: 0
DO: 20
TSS: 3020
Manganese: 234
Copper: 704
Ammonia & Nitrate: 72
Hardness: 42
Zinc: 84
Conductivity: 118.38
Chloride: 29
Sulphate: 195

Test case: 2
Welcome to Real-Time River Water Quality Monitoring and Control System
Temperature: 0
pH: 14
DO: 54
TSS: 1354
Manganese: 894
Copper: 773
Ammonia & Nitrate: 51
Hardness: 420
Zinc: 98
Conductivity: 1688.94
Chloride: 55
Sulphate: 282

Test case: 3
Welcome to Real-Time River Water Quality Monitoring and Control System
Temperature: -7
pH: 5
DO: 72
TSS: 1254
Manganese: 780
Copper: 1390
Ammonia & Nitrate: 16
Hardness: 621
Zinc: 29
>>>
```

```
IDLE Shell 3.10.5
File Edit Shell Debug Options Window Help
...
TSS: 1254
Manganese: 780
Copper: 1390
Ammonia & Nitrate: 16
Hardness: 621
Zinc: 29
Conductivity: 615.78
Chloride: 37
Sulphate: 585

Test case: 4
Welcome to Real-Time River Water Quality Monitoring and Control System
Temperature: 9
pH: 12
DO: 74
TSS: 2195
Manganese: 348
Copper: 1745
Ammonia & Nitrate: 76
Hardness: 190
Zinc: 57
Conductivity: 1720.40
Chloride: 198
Sulphate: 942

Test case: 5
Welcome to Real-Time River Water Quality Monitoring and Control System
Temperature: 43
pH: 7
DO: 100
TSS: 1622
Manganese: 128
Copper: 486
Ammonia & Nitrate: 7
Hardness: 880
Zinc: 100
Conductivity: 1083.60
Chloride: 27
Sulphate: 998
>>>
```