SPRINT 1

DATE	10 NOVEMBER 2022
TEAM ID	PNT2022TMID11410
PROJECT NAME	REAM-TIME RIVER WATER QUALITY MONITORING AND CONTROL SYSTEM

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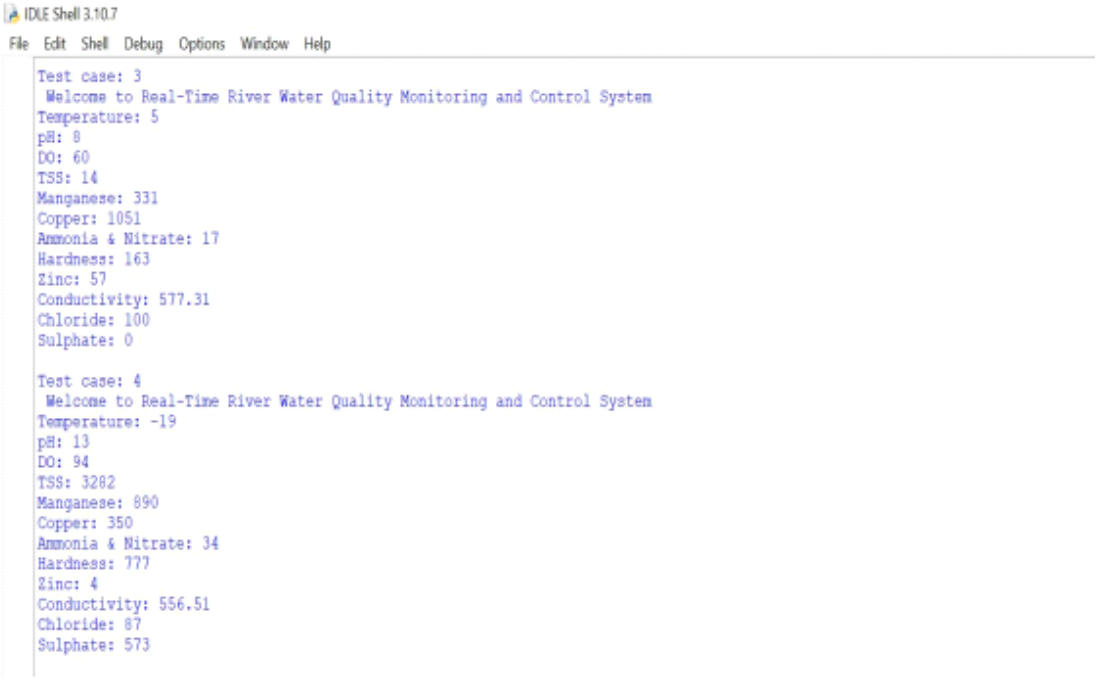
CODE:

```
import random as rand

for i in range(6):

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 store value of ramdom 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 CASES :


IDLE Shell 3.10.7
File Edit Shell Debug Options Window Help
Python 3.10.7 (tags/v3.10.7:6cc6b13, Sep 5 2022, 14:08:36) [MSC v.1933 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
=== RESTART: C:/Users/Dell/AppData/Local/Programs/Python/Python310/sprint1.py ==
Test case: 1
Welcome to Real-Time River Water Quality Monitoring and Control System
Temperature: 68
pH: 14
DO: 81
TSS: 1561
Manganese: 740
Copper: 571
Ammonia & Nitrate: 52
Hardness: 258
Zinc: 5
Conductivity: 1943.13
Chloride: 48
Sulphate: 264
Test case: 2
Welcome to Real-Time River Water Quality Monitoring and Control System
Temperature: 22
pH: 14
DO: 86
TSS: 552
Manganese: 196
Copper: 1983
Ammonia & Nitrate: 55
Hardness: 415
Zinc: 72
Conductivity: 1356.38
Chloride: 200
Sulphate: 240


IDLE Shell 3.10.7
File Edit Shell Debug Options Window Help
Test case: 3
Welcome to Real-Time River Water Quality Monitoring and Control System
Temperature: 5
pH: 8
DO: 60
TSS: 14
Manganese: 331
Copper: 1051
Ammonia & Nitrate: 17
Hardness: 163
Zinc: 57
Conductivity: 577.31
Chloride: 100
Sulphate: 0
Test case: 4
Welcome to Real-Time River Water Quality Monitoring and Control System
Temperature: -19
pH: 13
DO: 94
TSS: 3282
Manganese: 890
Copper: 350
Ammonia & Nitrate: 34
Hardness: 777
Zinc: 4
Conductivity: 556.51
Chloride: 87
Sulphate: 573

```
Test case: 5
 Welcome to Real-Time River Water Quality Monitoring and Control System
Temperature: 72
pH: 8
DO: 32
TSS: 1735
Manganese: 683
Copper: 298
Ammonia & Nitrate: 87
Hardness: 88
Zinc: 42
Conductivity: 731.23
Chloride: 182
Sulphate: 966

Test case: 6
 Welcome to Real-Time River Water Quality Monitoring and Control System
Temperature: -31
pH: 12
DO: 69
TSS: 2885
Manganese: 310
Copper: 1834
Ammonia & Nitrate: 92
Hardness: 12
Zinc: 46
Conductivity: 450.94
Chloride: 40
Sulphate: 229

>>>
```