

SPRINT 1

Date	06 November 2022
Team ID	PNT2022TMID30466
Project Name	Project -Real time river water quality monitoring and Control System

Team Members:

1. Lavanya A - Team Leader
2. Priyadharshini R-Team Member
3. Pavithra J- Team Member
4. Nivindha N- Team Member

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 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 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

>>>