

SPRINT 3

TEAM ID:	PNT2022TMID00516
PROJECT NAME:	REAL TIME RIVER WATER QUALITY MONITORING AND CONTROL SYSTEM

PYTHON CODE:

```
import random as rand
for i in range(5):
    print("\n\nTest case: ", i+1)
    print("Welcome to Real-time River Water Quality Monitoring and Control System\n")
    temperture = 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))

    print(
        "Hardness: ", hardness,
        "\nDO: ", DO,
        "\nTSS: ", TSS,
        "\nTemperature: ", temperture,
        "\npH: ", pH,
        "\nManganese: ", Manganese,
        "\nCopper: ", Copper,
        "\nAmmonia and Nitrate: ", ammonia_nitrate,
        "\nZinc: ", zinc,
        "\nConductivity: ", conductivity,
        "\nChloride: ", chloride,
        "\nSulphate: ", sulphate, "\n"
    )
)
```

OUTPUT:

```
PS C:\Users\mridu\OneDrive\Desktop\Python> python -u "c:\Users\mridu\OneDrive\Desktop\Python\ibm.py"
```

```
Test case: 1
```

```
Welcome to Real-time River Water Quality Monitoring and Control System
```

```
Hardness: 972
```

```
DO: 5
```

```
TSS: 755
```

```
Temperature: -5
```

```
pH: 8
```

```
Manganese: 427
```

```
Copper: 981
```

```
Ammonia and Nitrate: 20
```

```
Zinc: 96
```

```
Conductivity: 1668.51
```

```
Chloride: 117
```

```
Sulphate: 470
```

```
Test case: 2
```

```
Welcome to Real-time River Water Quality Monitoring and Control System
```

```
Hardness: 487
```

```
DO: 86
```

```
TSS: 2485
```

```
Temperature: 35
```

```
pH: 0
```

```
Manganese: 941
```

```
Copper: 1588
```

```
Ammonia and Nitrate: 20
```

```
Zinc: 2
```

```
Conductivity: 1917.53
```

```
Chloride: 30
```

```
Sulphate: 776
```

Test case: 3
Welcome to Real-time River Water Quality Monitoring and Control System

Hardness: 955
DO: 68
TSS: 1963
Temperature: 56
pH: 14
Manganese: 461
Zinc: 81
Conductivity: 892.40
Chloride: 83
Sulphate: 236

Test case: 4
Welcome to Real-time River Water Quality Monitoring and Control System

Hardness: 522
DO: 27
TSS: 2451
Temperature: 114
pH: 6
Manganese: 791
Copper: 1251
Ammonia and Nitrate: 65
Zinc: 54
Conductivity: 336.76
Chloride: 2
Sulphate: 837

Test case: 5
Welcome to Real-time River Water Quality Monitoring and Control System

Hardness: 98
DO: 32
TSS: 1525
Temperature: 92
pH: 8
Manganese: 965
Copper: 1572
Ammonia and Nitrate: 72
Zinc: 95
Conductivity: 286.47
Chloride: 124
Sulphate: 944

PS C:\Users\mridu\OneDrive\Desktop\Python> █