

### SPRINT-3

<b>TEAM ID</b>	PNT2022TMID49915
<b>PROJECT NAME</b>	Real-Time water quality monitoring and control system

### Coding:

```
#importing Random function to generate the value import random as rand
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 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"
)
```

## OUTPUT:

```
Test Case: 1
Welcome to Real-Time River Water Quality Monitoring and Control System
Temperature: 106
pH: 14
DO: 66
TSS: 3671
Manganese: 527
Copper: 897
Ammonia & Nitrate: 36
Hardness: 906
Zinc: 83
Conductivity: 9.31
Chloride: 180
Sulphate: 829

Test case: 2
Welcome to Real-Time River Water Quality Monitoring and Control System
Temperature: 68
pH: 14
DO: 9
TSS: 945
Manganese: 664
Copper: 129
Ammonia & Nitrate: 58
Hardness: 299
Zinc: 9
Conductivity: 1396.60
Chloride: 109
Sulphate: 636

Test case: 3
Welcome to Real-Time River Water Quality Monitoring and Control System
Temperature: 96
pH: 3
DO: 12
TSS: 2028
Manganese: 712
Copper: 162
Ammonia & Nitrate: 48
Hardness: 680
Zinc: 86
Conductivity: 1386.56
Chloride: 57
Sulphate: 527
```

```
Test case: 4
Welcome to Real-Time River Water Quality Monitoring and Control System
Temperature: 8
pH: 6
DO: 3
TSS: 2628
Manganese: 744
Copper: 415
Ammonia & Nitrate: 89
Hardness: 283
Zinc: 61
Conductivity: 1735.73
Chloride: 3
Sulphate: 18
```

```
Test case: 5
Welcome to Real-Time River Water Quality Monitoring and Control System
Temperature: 14
pH: 0
DO: 30
TSS: 2521
Manganese: 618
Copper: 498
Ammonia & Nitrate: 54
Hardness: 415
Zinc: 64
Conductivity: 1046.15
Chloride: 138
Sulphate: 653
```