SPRINT 1

Date	**29 October 2022**
Team ID	**PNT2022TMID06942**
Project Name	**Project -**Real time river water quality monitoring and Control System

Team Members:

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CODE:

```
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"
)
```

TEST CASES:

```
Test case: 1
Welcome to Real-Time River Water Quality Monitoring and Control System
Temperature: 42
pH: 10
DO: 25
TSS: 1672
Manganese: 10
Copper: 285
Ammonia & Nitrate: 72
Hardness: 397
Zinc: 95
Conductivity: 1637.04
Chloride: 5
Sulphate: 326
```

```
Test case: 3
Welcome to Real-Time River Water Quality Monitoring and Control System
Temperature: 47
pH: 0
DO: 10
TSS: 676
Manganese: 573
Copper: 1745
Ammonia & Nitrate: 96
Hardness: 438
Zinc: 19
Conductivity: 1517.00
Chloride: 197
Sulphate: 252
```

```
Test case: 4
Welcome to Real-Time River Water Quality Monitoring and Control System
Temperature: 79
pH: 8
DO: 18
TSS: 3457
Manganese: 940
Copper: 610
Ammonia & Nitrate: 3
Hardness: 804
Zinc: 28
Conductivity: 176.69
Chloride: 58
Sulphate: 947
```

```
Test case: 2
Welcome to Real-Time River Water Quality Monitoring and Control System
Temperature: 15
pH: 14
DO: 77
TSS: 1860
Manganese: 904
Copper: 16
Ammonia & Nitrate: 24
Hardness: 933
Zinc: 79
Conductivity: 444.38
Chloride: 149
Sulphate: 556
```