

SPRINT 3

TEAM ID	PNT2022TMID17622
PROJECT NAME	Real-Time River water Quality Monitoring and Control System

CODE:-

```
import random as rand
```

```
for i in range(5):
```

```
    print("Test case:",1+1)
```

```
print("Welcome to Real-Time River Water Quality Monitoring and  
Control System")
```

```
temperature =int (rand.randint(-40,125))
```

```
PH DO-> int(rand.randint(0,14)) 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,200)) Sulphate int (rand.randint(0,1000))
```

```
#These variables store value of random data to be shared to the cloud
```

```
Sprinting the values
```

```
print"Temperature:", temperature,
```

```
"AnpH:", pH,
```

```
"\nD0;", 00,
```

```
"\nTSS:", TSS,
```

"Manganese:", Hanganese,

"\nCopper:", Copper,

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)"

f" {float(rand.uniform(0.001),

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,

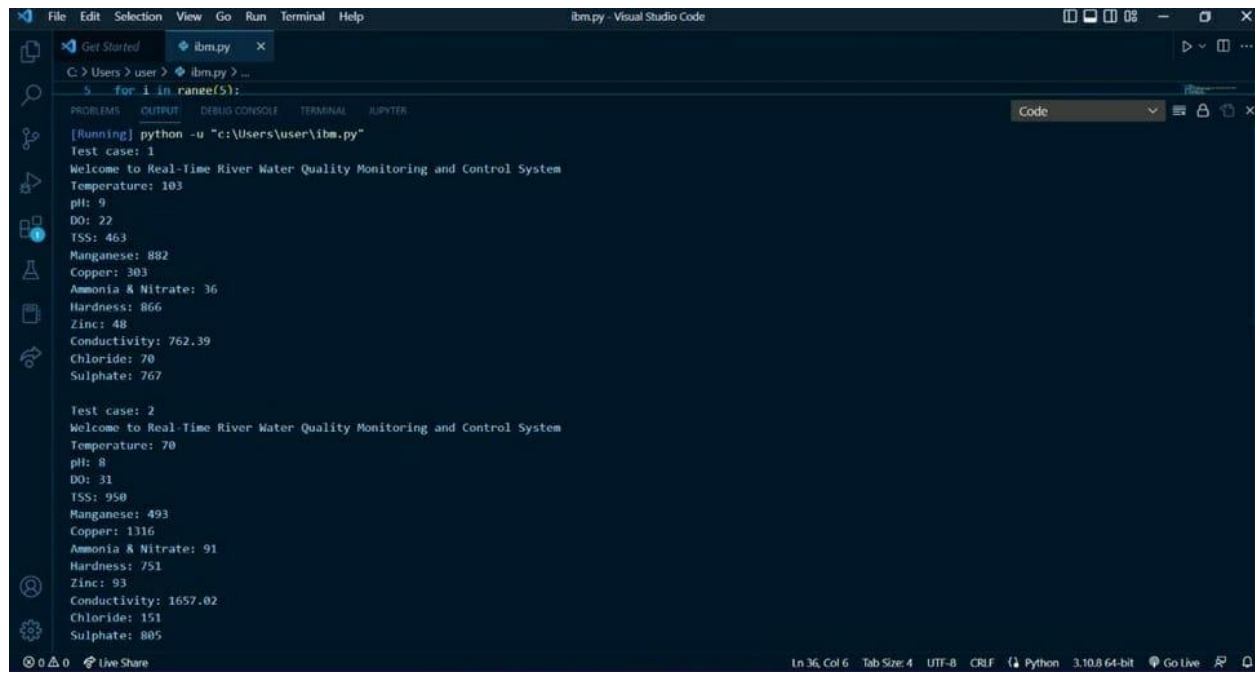
"\nZinc:", Zinc,

"\nConductivity:", Conductivity,

"\nChloride:", Chloride,

"\nSulphate:", Sulphate, "\n"

OUTPUT :



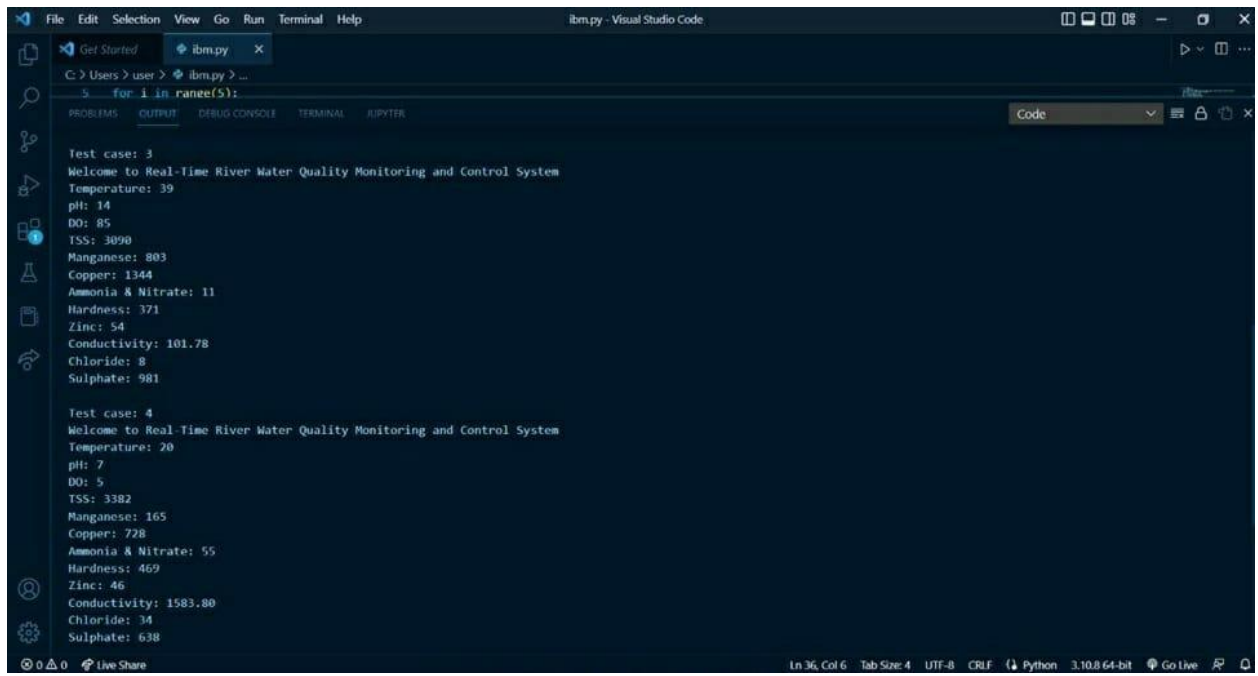
```
File Edit Selection View Go Run Terminal Help
ibm.py - Visual Studio Code

Get Started ibm.py x
C:\Users\user> python ibm.py
5 for i in range(5):

[Running] python -u "c:\Users\user\ibm.py"
Test case: 1
Welcome to Real-Time River Water Quality Monitoring and Control System
Temperature: 103
pH: 9
DO: 22
TSS: 463
Manganese: 882
Copper: 303
Ammonia & Nitrate: 36
Hardness: 866
Zinc: 48
Conductivity: 762.39
Chloride: 70
Sulphate: 767

Test case: 2
Welcome to Real-Time River Water Quality Monitoring and Control System
Temperature: 70
pH: 8
DO: 31
TSS: 950
Manganese: 493
Copper: 1316
Ammonia & Nitrate: 91
Hardness: 751
Zinc: 93
Conductivity: 1657.02
Chloride: 151
Sulphate: 805

0 0 0 Live Share
Ln 36, Col 6 Tab Size: 4 UTF-8 CRLF Python 3.10.8 64-bit Go Live
```



The screenshot shows a Visual Studio Code editor window with a single file named 'ibm.py'. The code in the file is a Python script that prints out two test cases for a 'Real-Time River Water Quality Monitoring and Control System'. The first test case (Test case: 3) lists parameters: Temperature (39), pH (14), DO (85), TSS (3090), Manganese (803), Copper (1344), Ammonia & Nitrate (11), Hardness (371), Zinc (54), Conductivity (101.78), Chloride (8), and Sulphate (981). The second test case (Test case: 4) lists parameters: Temperature (20), pH (7), DO (5), TSS (3382), Manganese (165), Copper (728), Ammonia & Nitrate (55), Hardness (469), Zinc (46), Conductivity (1583.80), Chloride (34), and Sulphate (638). The interface includes a menu bar at the top, a sidebar on the left with icons for Explorer, Search, Run and Debug, and Source Control, and a bottom status bar showing 'Ln 36, Col 6', 'Tab Size: 4', 'UTF-8', 'CRLF', 'Python', '3.10.8 64-bit', and 'Go Live'.

```
File Edit Selection View Go Run Terminal Help
ibm.py - Visual Studio Code

Get Started ibm.py x
C:\Users\user> python ibm.py
5 for i in range(5):

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL JUPYTER Code
Test case: 3
Welcome to Real-Time River Water Quality Monitoring and Control System
Temperature: 39
pH: 14
DO: 85
TSS: 3090
Manganese: 803
Copper: 1344
Ammonia & Nitrate: 11
Hardness: 371
Zinc: 54
Conductivity: 101.78
Chloride: 8
Sulphate: 981

Test case: 4
Welcome to Real-Time River Water Quality Monitoring and Control System
Temperature: 20
pH: 7
DO: 5
TSS: 3382
Manganese: 165
Copper: 728
Ammonia & Nitrate: 55
Hardness: 469
Zinc: 46
Conductivity: 1583.80
Chloride: 34
Sulphate: 638

Ln 36, Col 6 Tab Size: 4 UTF-8 CRLF Python 3.10.8 64-bit Go Live
```