

PYTHON CODE

TEAM ID	PNT2022TMID42440
PROJECT TITLE	REAL TIME RIVER WATER QUALITY MONITORING AND CONTROL SYSTEM
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OUTPUT

The image shows a Visual Studio Code editor window with the file `python.py` open. The interface includes a sidebar on the left with icons for Explorer, Search, Run and Debug, Extensions, and Settings. The top menu bar contains File, Edit, Selection, View, Go, Run, and Help. The main editor area is divided into two panes: the left pane shows the Explorer view with a file tree containing `> PYTHON`, `> OUTLINE`, and `> TIMELINE`; the right pane shows the TERMINAL view with the output of the Python script.

The terminal output shows the execution of the script `python.py` using the `Python Debug Console`. The script simulates a water quality monitoring system with three test cases. The output for each test case is as follows:

```
thon\debugpy\adapter\...\debugpy\launcher' '58356' '--' 'c:\Users\Karthi Karthi\Desktop\ibm\python\python.py'
Test case: 1
Welcome to Real-Time River Water Quality Monitoring and Control System
Temperature: -34
pH: 6
DO: 60
TSS: 2987
Manganese: 197
Copper: 1359
Ammonia & Nitrate: 2
Hardness: 640
Zinc: 64
Conductivity: 762.54
Chloride: 160
Sulphate: 557

Test case: 2
Welcome to Real-Time River Water Quality Monitoring and Control System
Temperature: 41
pH: 14
DO: 1
TSS: 728
Manganese: 233
Copper: 1051
Ammonia & Nitrate: 72
Hardness: 603
Zinc: 46
Conductivity: 10.00
Chloride: 163
Sulphate: 891

Test case: 3
Welcome to Real-Time River Water Quality Monitoring and Control System
Temperature: -23
pH: 4
DO: 52
TSS: 1367
```

This screenshot shows the VS Code interface with the terminal output for three test cases. The Explorer sidebar on the left shows a file tree with 'PYTHON', 'OUTLINE', and 'TIMELINE' folders. The terminal output is as follows:

```
Test case: 3
Welcome to Real-Time River Water Quality Monitoring and Control System
Temperature: -23
pH: 4
DO: 52
TSS: 1367
Manganese: 111
Copper: 369
Ammonia & Nitrate: 75
Hardness: 894
Zinc: 20
Conductivity: 1142.33
Chloride: 11
Sulphate: 921

Test case: 4
Welcome to Real-Time River Water Quality Monitoring and Control System
Temperature: 44
pH: 6
DO: 31
TSS: 1925
Manganese: 923
Copper: 1015
Ammonia & Nitrate: 10
Hardness: 984
Zinc: 76
Conductivity: 114.95
Chloride: 28
Sulphate: 977

Test case: 5
Welcome to Real-Time River Water Quality Monitoring and Control System
Temperature: 23
pH: 7
DO: 31
TSS: 2959
```

The status bar at the bottom indicates the file is 'python.py' on line 36, column 6, with 4 spaces, UTF-8 encoding, CRLF line endings, Python 3.9.7 64-bit, and Go Live and Prettier extensions active.

This screenshot shows the continuation of the VS Code terminal output from the previous image. The Explorer sidebar remains the same. The terminal output continues with the details for Test case 5:

```
Copper: 369
Ammonia & Nitrate: 75
Hardness: 894
Zinc: 20
Conductivity: 1142.33
Chloride: 11
Sulphate: 921

Test case: 4
Welcome to Real-Time River Water Quality Monitoring and Control System
Temperature: 44
pH: 6
DO: 31
TSS: 1925
Manganese: 923
Copper: 1015
Ammonia & Nitrate: 10
Hardness: 984
Zinc: 76
Conductivity: 114.95
Chloride: 28
Sulphate: 977

Test case: 5
Welcome to Real-Time River Water Quality Monitoring and Control System
Temperature: 23
pH: 7
DO: 31
TSS: 2959
Manganese: 188
Copper: 1429
Ammonia & Nitrate: 49
Hardness: 864
Zinc: 10
Conductivity: 318.45
Chloride: 34
Sulphate: 990
```

The status bar at the bottom is identical to the first screenshot, showing 'python.py' on line 36, column 6, with 4 spaces, UTF-8 encoding, CRLF line endings, Python 3.9.7 64-bit, and Go Live and Prettier extensions active.