

Project Development Phase
Project Development Template (Sprint-9)

Date	19 November 2022
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Project Name	Project-Real-Time River Water Monitoring And Control Systems

Python code for water monitoring sample test cases:

```
#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  
random 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"  
)
```