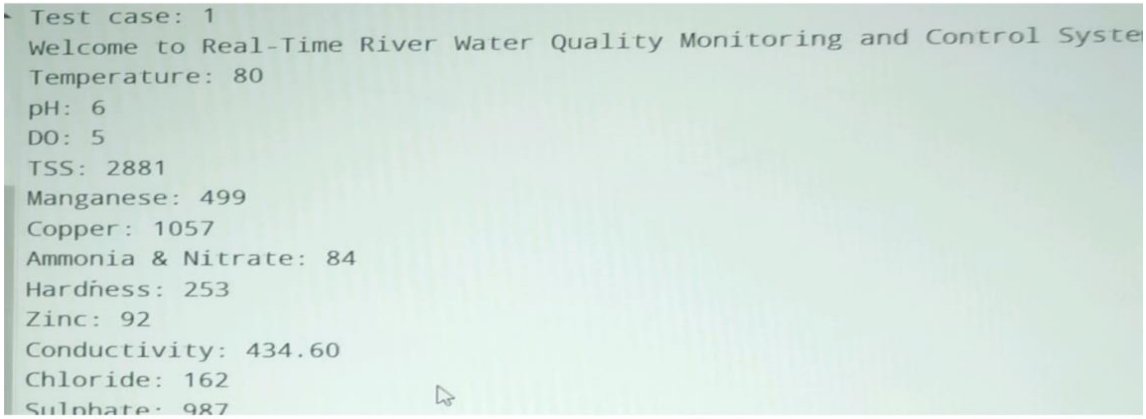
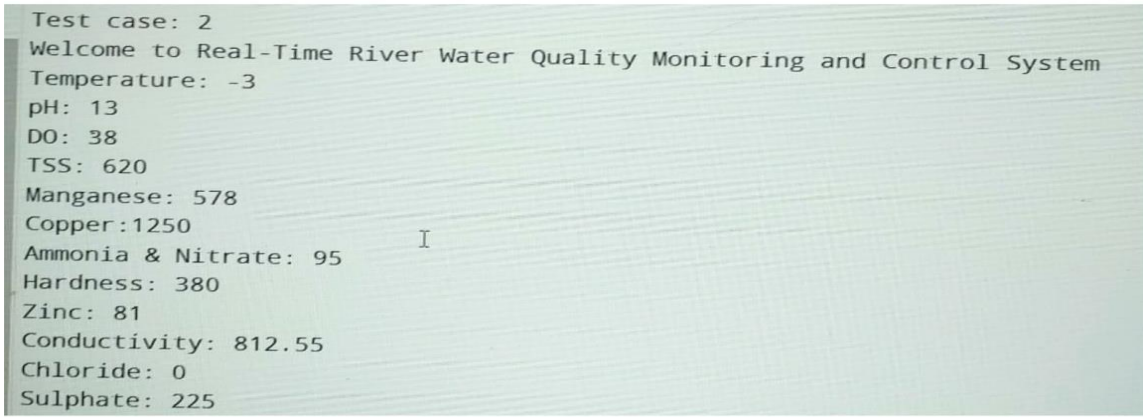
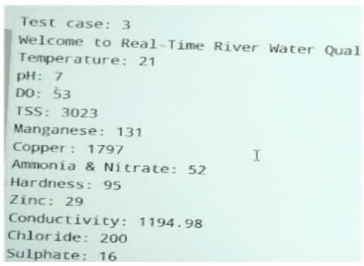
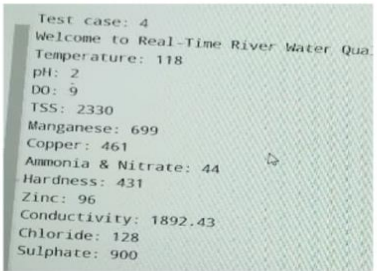
DEVELOPMENT PHASE - SPRINT 3

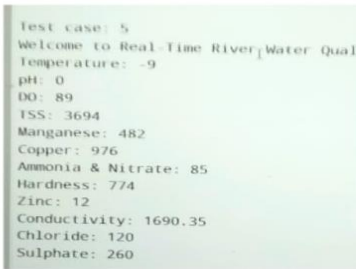
Date	10 November 2022
Team ID	PNT2022TMID15074
Project Name	IOT Based Real – time River Water Quality Monitoring and Control System











PYTHON CODE:

```
#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"
                )
```