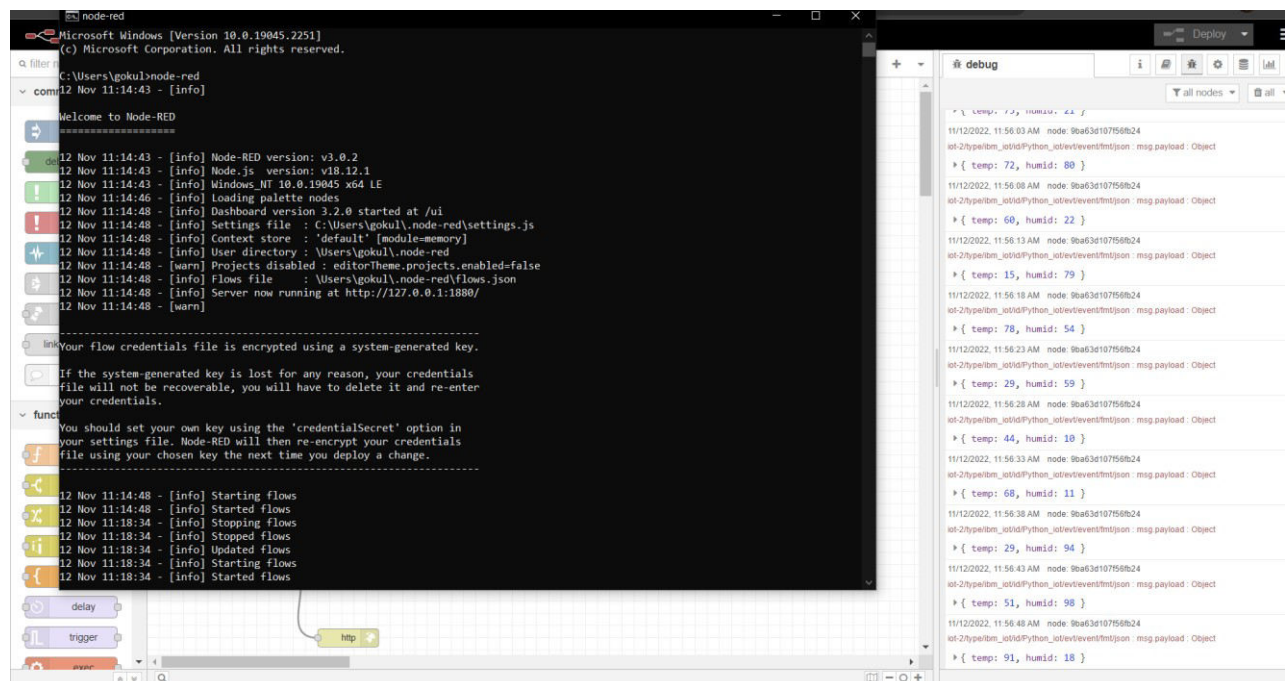
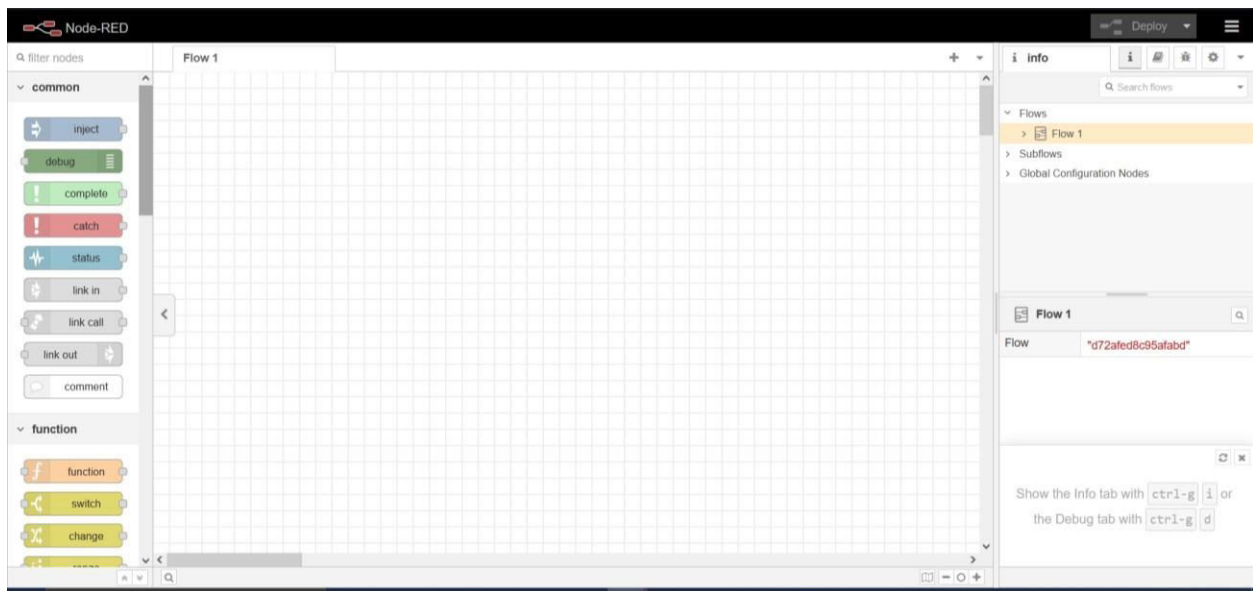


CREATION OF NODE-RED

Date	16 November 2022
Team ID	PNT2022TMID36806
Project Name	Real – time River Water Quality Monitoring and Control System
Maximum Marks	4 Marks

Our task to create node-red is successfully done. A screenshot of this node-red screen is attached below:



The screenshot shows the Visual Studio Code editor with a Python file named `ibm.py`. The script is designed to connect an IBM IoT device and publish sensor data to IBM Watson IoT Platform. The code includes error handling for connection issues and a loop for publishing data.

```
32 deviceOptions = {"org": organization, "type": devicetype, "id": deviceid, "auth-method": authMethod,
33                  "auth-token": authToken}
34 deviceCli = ibmiotf.device.Client(deviceOptions)
35 # .....
36
37 except Exception as e:
38     print("caught exception connecting device: %s" % str(e))
39     sys.exit()
40
41 deviceCli.connect()
42
43 while True:
44     pH = random.randint(0,100)
45     turbidity = random.randint(0,100)
46     # Send Temperature & Humidity to IBM Watson
47     data = {'temp':pH, 'humid':turbidity} #output
48
49
50 # print data
51 def myOnPublishCallback():
52     print("Data publish ",data, "to IBM Watson")
53
54
55 success = deviceCli.publishEvent("event", "json", data, 0, myOnPublishCallback)
56 if not success:
57     print("Not connected to IoT")
58     time.sleep(5)
```

The TERMINAL window at the bottom shows the output of the script, displaying multiple "Data publish" messages with random temperature and humidity values to IBM Watson.

