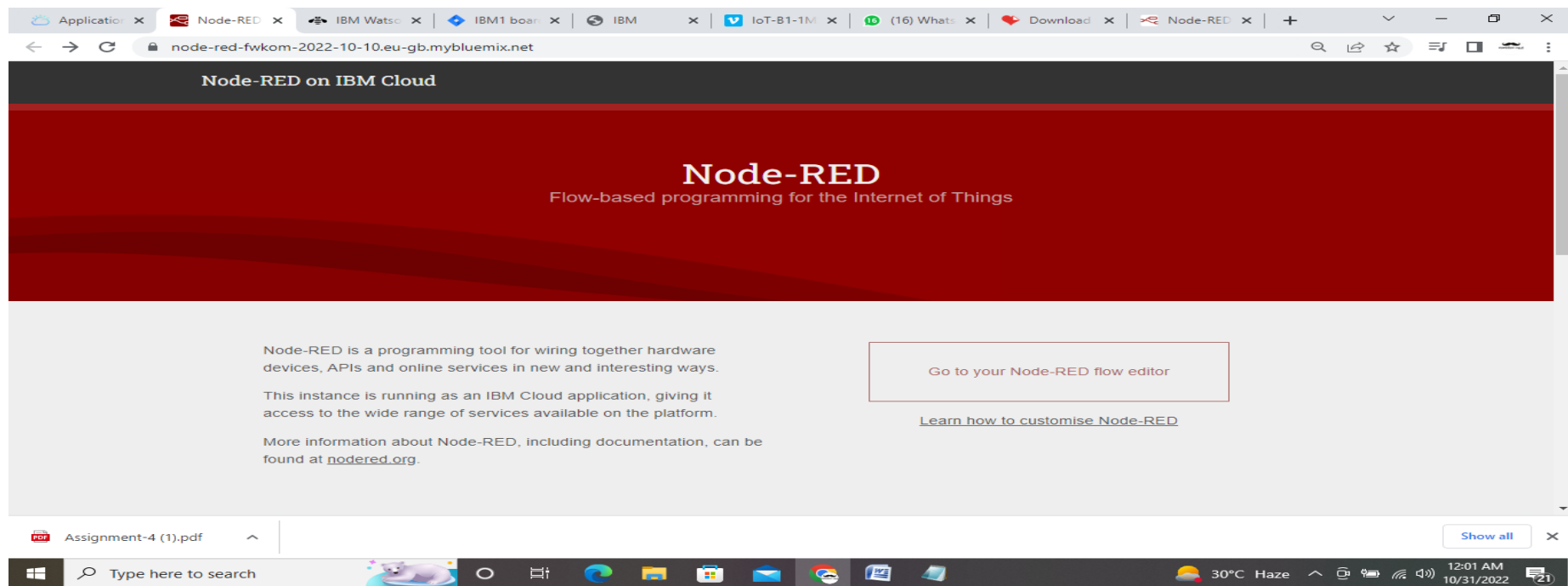


Project Development Phase Sprint-2

Date	5-NOVEMBER 2022
Team ID	PNT2022TMID46174
Project Name	Project – Real-time river water quality monitoring and control system

USN-7

As a user, I can create Node Red by app deployment.



USN-8

As a user, I can get the API key through IBM Watson platform.

The screenshot displays the IBM Watson IoT Platform dashboard. The top navigation bar includes links for 'Applics', 'Service', 'Node-...', 'IBM', 'IBM1 b', 'IBM', 'IoT-B1', '(16) W', 'Assign', 'Downl', 'Downl', 'Node-', 'Node-', and 'Node-'. The browser address bar shows the URL: `rv07c6.internetofthings.ibmcloud.com/dashboard/apps/browse/add`. The dashboard header identifies the user as '815119106025@smartinternz.com' with ID 'rv07c6'.

The main content area features a success message: 'The API key has been added.' Below this, a warning states: 'Authentication tokens are non-recoverable. If you misplace this token, you will need to re-register the API key to generate a new authentication token.'

The 'Generated Details' section lists the following information:

Generated Details	API Key Information
API Key: a-rv07c6-8ogwyewcqz	Description: -
Authentication Token: O-C*1q+MaYoC43WOL	Role: Standard Application
	Expires: Never

A warning icon and text below the details state: 'Make a note of the generated authentication token. Lost authentication tokens cannot be recovered. If you lose the token, you must reregister the API to generate a new token.'

At the bottom of the message box are three buttons: 'View API Key', 'Add Another', and 'Close'.

The 'Browse API Keys' section is visible below the message box. It includes a search bar with the placeholder text 'Type the app description to search for' and a search icon. Below the search bar, a status indicator shows '2 Simulations running'.

The bottom of the screen shows a Windows taskbar with the search bar 'Type here to search', several application icons, and system tray information including '30°C', '3:38 AM', and '10/31/2022'.

USN-9

As a user, I can design the flow in Node Red.

The screenshot displays the Node-RED web interface in a browser window. The address bar shows the URL `127.0.0.1:1880/#flow/2c31fab4f92e7193`. The interface includes a left sidebar with node categories (common, function), a central workspace for 'Flow 1', and a right sidebar for the debug console.

Flow 1 Diagram:

- IBM IoT Node:** A blue node labeled 'connected' that receives input from the left.
- msg payload Node:** A green node that receives input from the IBM IoT node.
- Function Nodes:** Three orange nodes labeled 'temperature node', 'pH', and 'Turbidity' that receive input from the msg payload node.
- Output Nodes:** Three blue nodes labeled 'temperature', 'pH', and 'Turbidity' that receive input from their respective function nodes.

Debug Console:

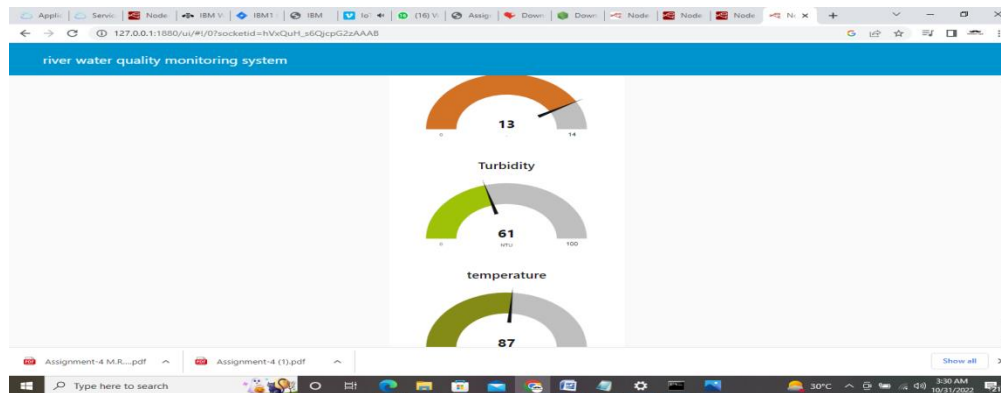
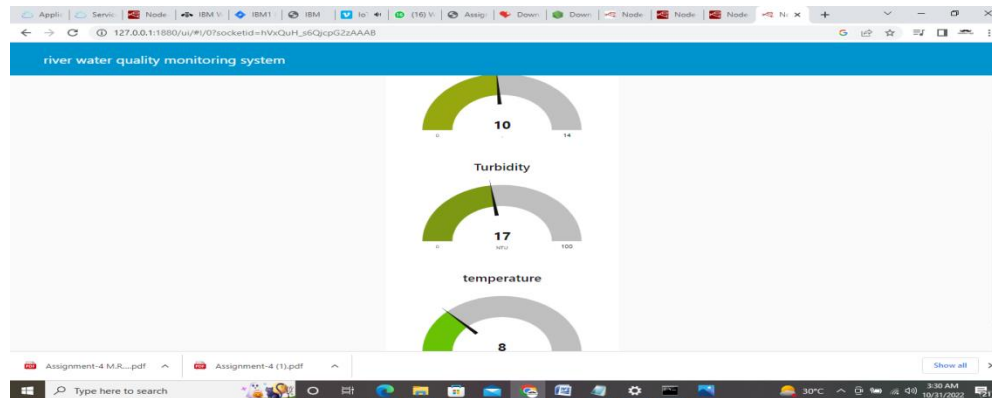
The debug console shows a series of messages received from the 'msg payload' node. Each message is an object containing Temperature, PH, and Turbidity values.

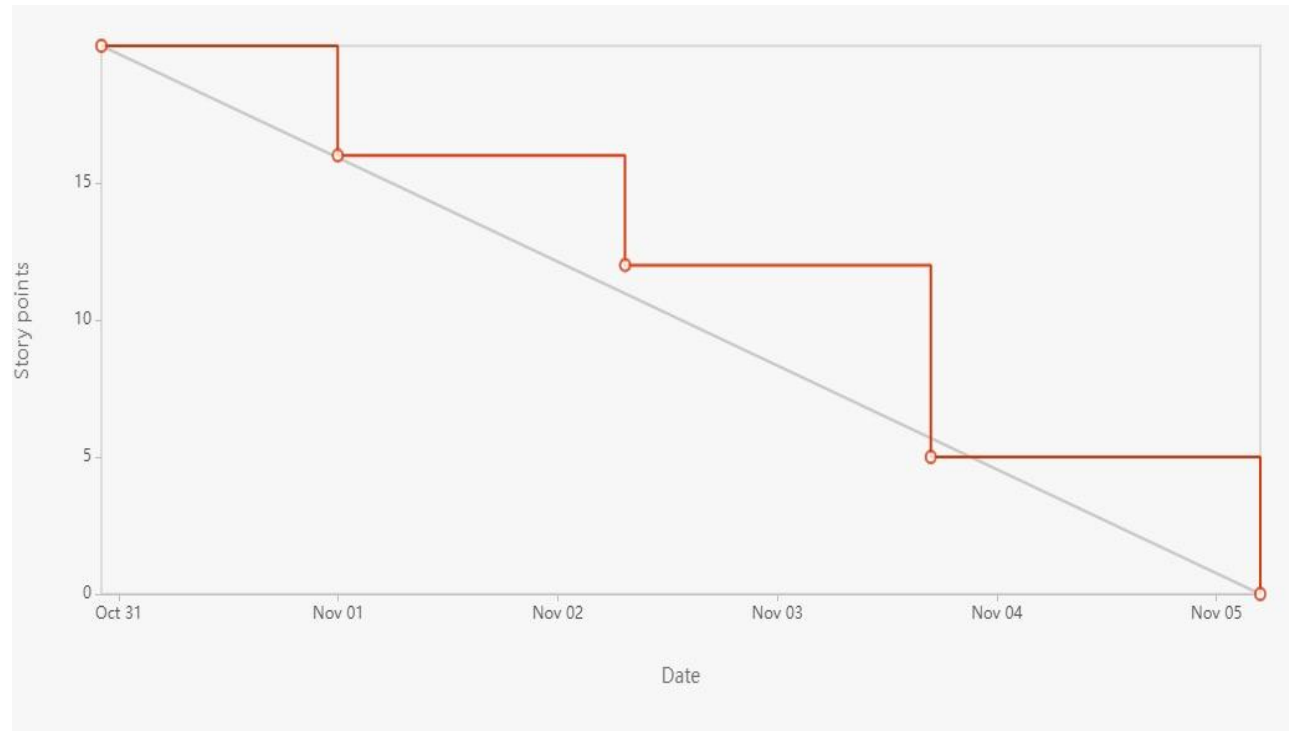
```
Object
  { Temperature: 59, PH: 5, Turbidity: 72 }
10/31/2022, 3:35:42 AM node: msg payload
iot-2/type/riverwaterquality-22_23/id/123456/evt/Data/fmt/json : msg.payload :
Object
  { Temperature: 17, PH: 5, Turbidity: 42 }
10/31/2022, 3:35:46 AM node: msg payload
iot-2/type/riverwaterquality-22_23/id/123456/evt/Data/fmt/json : msg.payload :
Object
  { Temperature: 5, PH: 9, Turbidity: 2 }
10/31/2022, 3:36:43 AM node: msg payload
iot-2/type/riverwaterquality-22_23/id/123456/evt/Data/fmt/json : msg.payload :
Object
  { Temperature: 57, PH: 9, Turbidity: 32 }
```

8

USN-10

As a user, I can check for the gauge output.



SPRINT BURNDOWN CHART:

ROAD MAP:

	OCT	NOV										NOV									
	27	28	29	30	31	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Sprints	Sprint 1			Sprint 2								Sprint 3					Sprint 4				
> IBM1-7 Create and configure IBM cloud services (I...																					
> IBM1-8 Create and access Node-Red																					
> IBM1-13 MIT app inventor (Front end design and B...																					
> IBM1-16 Simulate ESP32																					
> IBM1-21 Create a Web UI																					
> IBM1-24 Connect with web application																					

VELOCITY CHART:

