

PROJECT DEVELOPMENT PHASE

PROJECT DEVELOPMENT DELIVERY OF SPRINT 1

Date	04-11-2022
Team ID	PNT2022TMID08456
Project Name	Real-Time River Water Quality Monitoring and Control System
Marks	

ABOUT OUR TOPIC:

REAL – TIME RIVER WATER QUALITY MONITORING AND CONTROL SYSTEM

Internet of things (IoT) is an innovative technological phenomenon. It is shaping today's world and is used in different fields for collecting, monitoring and analysis of data from remote locations. IoT integrated network is everywhere starting from smart cities, smart power grids, and smart supply chain to smart wearable. Though IoT is still under applied in the field of environment it has huge potential.

Current water quality monitoring system is a manual system with a monotonous process and is very time-consuming. It is sensor-based water quality monitoring system. The main components of Wireless Sensor Network (WSN) include a microcontroller for processing the system, communication system for inter and intra node communication and several sensors. Real-time data access can be done by using remote monitoring and Internet of Things (IoT) technology.

THINGS TO BE DONE

- To develop the Application using given deliverables
- To create IBM Watson Cloud and to link with the application developed
- To create Nord Red Service
- To express the Python Code and simulate successfully in IBM Cloud

IBM WATSON IoT Platform:

Device Description

We have created a New Device 1234567, where the Device Type is 1234. And we have set the device composed of following data's such as temperature(0,100), humidity(0,100), pH(0,14). When the codes uploaded in the Simulation device section becomes True, the outputs will be appeared in the Recent Event site below the Respected Device block. The output displays until the python code is Switched OFF.

DEVICE CREATION PAGE

The screenshot displays a web-based device management interface. At the top, there are tabs for 'Devices', 'Actions', 'Device Types', and 'Interfaces'. An 'Add Device' button is located in the top right corner. Below the tabs is a table listing devices with columns for 'Device ID', 'Status', 'Device Type', 'Class ID', and 'Date Added'. Two devices are listed: '123456' (Disconnected) and '1234567' (Connected). The '1234567' device is selected, and its details are shown in a modal window below the table. The modal has tabs for 'Identity', 'Device Information', 'Recent Events', 'State', and 'Logs'. The 'Device Information' tab is active, showing details for device '1234567'.

Device ID	Status	Device Type	Class ID	Date Added
123456	Disconnected	123	Device	Oct 1, 2022 4:51 PM
1234567	Connected	1234	Device	Nov 5, 2022 7:59 PM

Device Information for 1234567:

- Device ID: 1234567
- Device Type: 1234
- Date Added: Nov 5, 2022 7:59 PM
- Added By: 941819104041@smartinternz.com
- Connection Status: Connected
Connection Time: Nov 7, 2022 8:04 PM
Client Address: 157.49.236.124 SecureToken

At the bottom of the modal, a partial view of another device entry is visible:

Device ID	Status	Device Type	Class ID	Date Added
123_2	Disconnected	123	Device	Nov 7, 2022 6:58 PM