Project Design Phase-II
Technology Stack (Architecture & Stack)

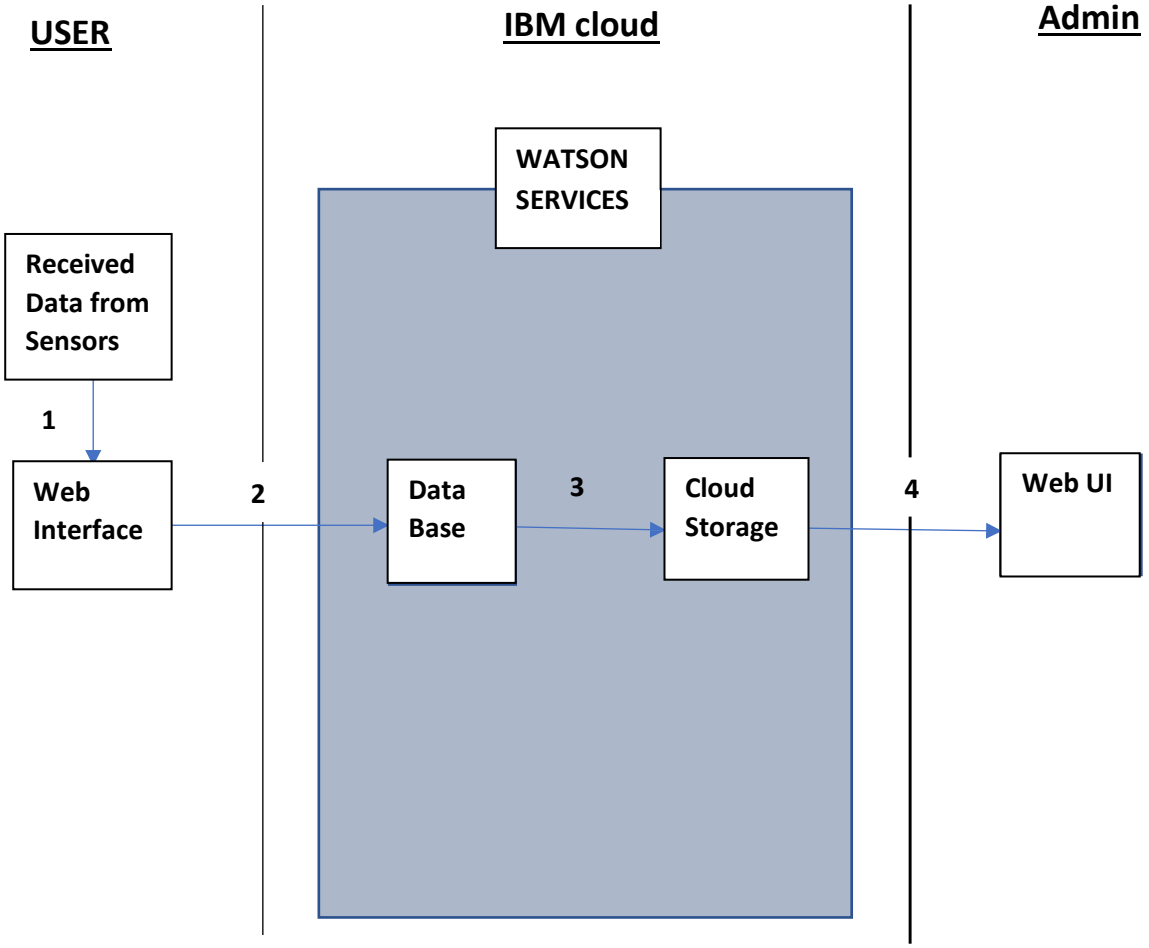
Date	03October 2022
Team ID	PNT2022TMID33098
Project Name	Project – Real Time River Water Quality Monitoring System
Maximum Marks	4 Marks

Technical Architecture:

Summary:

This code pattern explains how to build an IOT based river water monitoring and controlling system with some predefined values.

Flow



Guidelines:

1) Feed the data received from the Sensor unit which are placed in the river sides.
2) The collected data will be displayed in the Web page to the user. Received Data from Sensors Web Interface Data Base Cloud Storage Web UI WATSON SERVICES USER IBM cloud Admin 1 2 3 4
3) Then the collected data is sent to the data base, where the collected data and the predefined data are checked and monitored. If any data exceed the predefined date then the control signal will send to the Admin.
4) The collected data will be stored in the IBM cloud storage .
5) Later the data will be controlled by the admin via Web UI.

Components & Technologies:

S.No	Component	Description	Technology
1.	Received Data from Sensors	The data collected form the sensor units placed in the river sides.	ESP32 wifi module
2.	Web Interface	The collected data were displayed visually.	HTML, CSS, JavaScript
3.	Application logic	Logic for a process in the application.	Java/Python
3.	Database	Datatype	MySQL
4.	Cloud Database	Database Service on Cloud	IBM cloud
5.	Data Storage	File storage requirements	IBM Block Storage

Application Characteristics:

S.No	Characteristics	Description	Technology
1.	PH level Monitoring	The PH level of river water can be monitored via placing sensors in rivers.	PH-sensor
2.	Temperature Monitoring	The temperature of river water can be monitored	Temperature sensor
3.	Pollution Monitoring	The clarity and purity of river water can be monitored	Conductive sensor
4.	Soil level Monitoring	The amount of soil mixed in the river water can be measured	Turbidity sensor