# Data Flow Diagrams:

Project Design Phase-II Data Flow Diagram &User Stories

Start

|  |  |
| --- | --- |
| Date | 22 October 2022 |
| Team ID | PNT2022TMID38637 |
| Project Name | Project – **REAL TIME RIVER WATER QUALITY MONITORING AND CONTROL SYSTEM** |
| Maximum Marks | 4 Marks |

Establish a connection between controller and network

Read input(PH,Turbidity,Temperature

Display on a LCD

Stop

Sensor value > threshold

Send SMS to mobile

Upload data on the cloud

# User Stories

Use the below template to list all the user stories for the product.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **User Type** | **Functional**  **Requirement (Epic)** | **User Story Number** | **User Story / Task** | **Acceptance criteria** | **Priority** | **Release** |
| Circuit designer | Designing the circuit | USN-1 | As a user, I can design the circuit by using open source software. | I can get the exact design for my project. | High | Sprint-1 |
|  |  | USN-2 | As a user, I can design the circuit by using free web app like Tinkercad. | I can make several attempts to get the right  design. | High | Sprint-1 |
| Programmer | Create a program suitable for the circuit | USN-3 | As a user, I can create programs in the user friendly language. | I can create a simple program for the circuit | High | Sprint-1 |
|  |  | USN-4 | As a user, I can compile and execute the programs. | I can get the program with accurate outputs. | High | Sprint-1 |
| Engineer | Connects the output to the cloud | USN-5 | As a user, I can connect the output values to the cloud services by using NODE RED. | I can make the data to receive in cloud. | High | Sprint-1 |
|  | Store the output values | USN-6 | As a user, I can make the data store in IBM cloudant database. | I can retrieve the data anywhere, anytime. | Medium | Sprint-2 |
|  | Connects the cloud data with the authorities communication  device. | USN-7 | As a user, I can produce connection to the authorities mobile phones so that they can receive the alerts. | I can make the authorities informed about the water’s quality. | Medium | Sprint-2 |
|  | Alerts has to be sent to the authorities | USN-8 | As a user,I can make use of platforms such as Fast SMS to send the timely updates to the authorities. | I can make the authorities to get accurate values and alerts | High | Sprint-1 |
| Authorities | Checks the water quality alerts | USN-9 | As a user ,I check the quality values of the water that is sent to me . | I can make sure that the people in my zone gets  quality water. | High | Sprint-1 |
| Maintenance | Monitoring | USN-10 | The entire IOT system is get maintained | It increase the efficiency  and functionality of the  system. | Low | Sprint-3 |
| Administrator | Manage | USN-11 | All the datas are get recorded | The stored data used for future references. | Medium | Sprint-1 |