## **Project Planning Phase**

## **Project Planning Template (Product Backlog, Sprint Planning, Stories, Storypoints)**

| Date          | 22 October 2022   |
|---------------|---|
| Team ID       | PNT2022TMID46174  |
| Project Name  | Project – Real-time river water quality monitoring and control system |
| Maximum Marks | 8 Marks   |

## **Product Backlog, Sprint Schedule, and Estimation (4 Marks)**

Use the below template to create product backlog and sprint schedule

| Sprint   | Functional Requirement (Epic)                        | User Story<br>Number | User Story / Task  | Story Points | Priority | Team Members        |
|----------|--|----------------------|--|--------------|----------|---------------------|
| Sprint-1 | Create and configure IBM cloud services (IBM Watson) | USN-1                | As a user,I will register in ICTA Academy and create IBM cloud account.  | 3            | High     | C.NANDHINI          |
| Sprint-1 |  | USN-2                | As a user, I will access IBM cloud and launch the IBM Watson IOT platform  | 2            | Medium   | A.SABNA BEGAM       |
| Sprint-1 |  | USN-3                | As a user, I can create a device in the IOT IBM Watson platform for simulation .                                 | 5            | High     | M.RITHIKA           |
| Sprint-1 |  | USN-4                | As a user, I will get the device ID and device type of my device.  | 2            | Medium   | K.ANNAPOORANESHWARI |
| Sprint-1 |  | USN-5                | As a user, I can simulate the device created.  | 3            | High     | C.NANDHINI          |
| Sprint-1 |  | USN-6                | As a user ,I can get the values of temperature, PH and turbidity. I can create a line chart with my output data. | 5            | High     | A.SABNA BEGAM       |
| Sprint-2 | Create and access Node-<br>Red                       | USN-7                | As a user ,I can create Node- red by app deployment  | 4            | Low      | M.RITHIKA           |
| Sprint-2 |  | USN-8                | As a user ,I can get the api key through IBM Watson platform.  | 4            | Low      | K.ANNAPOORANESHWARI |
| Sprint-2 |  | USN-9                | As a user,I can design the flow in Node-Red.   | 7            | High     | C.NANDHINI          |

| Sprint   | Functional Requirement (Epic)                           | User Story<br>Number | User Story / Task  | Story Points | Priority | Team Members        |
|----------|---|----------------------|--|--------------|----------|---------------------|
| Sprint-2 |   | USN-10               | As a user, I can check for the gauge outputs.  | 5            | Medium   | A.SABNA BEGAM       |
| Sprint-3 | MIT app inventor (Front end design and Back end design) | USN-11               | As a user ,I can design the front end in MIT app inventor  | 5            | High     | M.RITHIKA           |
| Sprint-3 |   | USN-12               | As a user ,I can design the back end(blocks) in MIT app inventor   | 5            | High     | K.ANNAPOORANESHWARI |
| Sprint-3 | Simulate ESP32  | USN-13               | As a user ,I can give connections to ESP32.  | 3            | Low      | C.NANDHINI          |
| Sprint-3 |   | USN-14               | As a user,I can install DHT Pubsub libraries.  | 3            | Low      | A.SABNA BEGAM       |
| Sprint-3 |   | USN-15               | As a user, I can develop the code for sending the water quality parameters to the cloud                          | 6            | High     | M.RITHIKA           |
| Sprint-3 |   | USN-16               | As a user, I can develop a code for connecting the nodes to Wifi.I can connect the sensors with microcontroller. | 8            | High     | K.ANNAPOORANESHWARI |
| Sprint-4 | Create a Web UI   | USN-17               | As a user, I can create a Web UI.  | 6            | High     | C.NANDHINI          |
| Sprint-4 |   | USN-18               | As a user,I can check whether I can get the values of the parameters.  | 4            | Medium   | A.SABNA BEGAM       |
| Sprint-4 | Connect with web application                            | USN-19               | As a user,I can connect the Web UI with the mobile application through QR code                                   | 3            | Low      | M.RITHIKA           |
| Sprint-4 |   | USN-20               | As a user ,I can get values of the parameters in my mobile application   | 5            | Medium   | K.ANNAPOORANESHWARI |
| Sprint-4 |   | USN-21               | As a user, I can store the values of the parameters in the cloud database  | 7            | High     | C.NANDHINI          |
| Sprint-4 |   | USN-22               | As a user ,I can get the accurate values in my mobile application  | 5            | High     | A.SABNA BEGAM       |

## Project Tracker, Velocity & Burndown Chart: (4 Marks)

| Sprint   | Total Story<br>Points | Duration | Sprint Start Date | Sprint End Date<br>(Planned) | Story Points Completed (as on Planned End Date) | Sprint Release Date (Actual) |
|----------|-----------------------|----------|-------------------|------------------------------|---|------------------------------|
| Sprint-1 | 20                    | 6 Days   | 24 Oct 2022       | 29 Oct 2022                  | 20  | 29 Oct 2022                  |
| Sprint-2 | 20                    | 6 Days   | 31 Oct 2022       | 05 Nov 2022                  | 20  | 31 Oct 2022                  |
| Sprint-3 | 30                    | 6 Days   | 07 Nov 2022       | 12 Nov 2022                  | 30  | 07 Nov 2022                  |
| Sprint-4 | 30                    | 6 Days   | 14 Nov 2022       | 19 Nov 2022                  | 30  | 14 Nov 2022                  |
|          |                       |          |                   |                              |   |                              |
|          |                       |          |                   |                              |   |                              |
|          |                       |          |                   |                              |   |                              |
|          |                       |          |                   |                              |   |                              |