TEAM ID : PNT2022TMID27339

TITLE : REAL TIME RIVER WATER QUALITY MONITORING AND CONTROL SYSTEM

Performance Testing

NFT - Risk Assessment									
S.No	Project Name	Scope/feature	Functional Changes	Hardware Changes	Software Changes	Impact of Downtime	Load/Volume Changes	Risk Score	Justification
1.	River water quality monitoring	Existing- Simulating the project through the Tinkercad with Temperature, PH and turbidity sensors and motors.	Moderate	High	High	No data transmission to Cloud	>80 to 90%	ORANGE	There is no Wi-Fi module in the Tinkercad simulator so data can't be sent to IBM Cloud.
2.	River water quality monitorig	New- Simulating the project through the Wokwi simulator with Temperature, PH, turbidity sensors, and motors.	High	High	Moderate	The non-availability of certain sensors in Wokwi.	>30 to 40%	YELLOW	The random function is used for the water parameter sensor to generate some random value.
3.	River water quality monitorig	Existing – Visualizing t he water parameters in the Watson IoT platform.	Moderate	No Changes	Low	Delayed Visualization of Data.	>50 to 60%	GREEN	The stable internet connection is enough for a constant data transmission.
4.	River water quality monitorig	Existing- Visualizing the water parameters in the Watson IoT platform.	No Changes	No Changes	Moderate	Delayed Visualization of Data.	>40 to 50%	GREEN	The data can be easily transferred to other applications and also can be visualized in the dashboard.

5.	River water quality monitorig	New- Login to the river water quality monitoring mobile application and Viewing the parameters.	Moderate	No Changes	High	Latency of data will be high.	>20 to 10%	GREEN	The parameter send by the module will be stored in the cloud and then sent to the mobile app, so there will be less latency.
6.	River water quality monitorig	New – Controlling the motor from the mobile application and its indication in the simulator.	Low	Low	Low	Motor control will be delayed.	>30 to 20%	YELLOW	The motor control can be controlled by sending a response from the mobile app to the module.