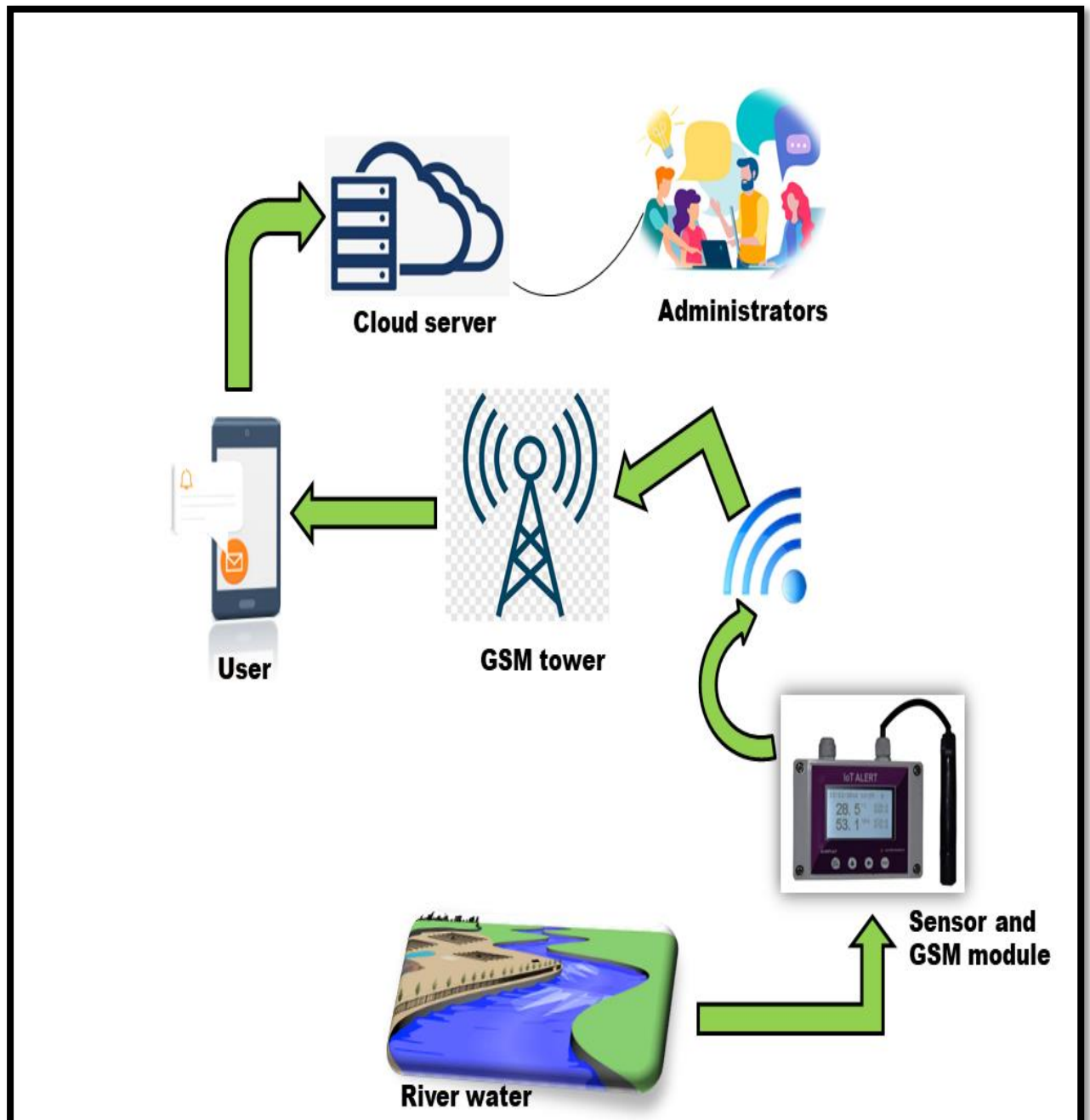| Date	03 Oct 2022
Team ID	PNT2022TMID47455
Project Name	Real Time River water Quality Monitoring And Control System
Mark	4 mark

Table-1: Components and Technologies:

S.No	Component	Description	Technology
1.	User Interface	Web UI, Mobile App	HTML, CSS, Python Script
2.	Application Logic-1	Available water resources to detect and to search location	Python Script
3.	Application Logic-2	Statistical random values and graphical analysis	IBM Watson STT Service
4.	Application Logic-3	Alert messages to the user	IBM Watson Assistant
5.	Database	Random values of pH level, turbidity and temperature in river water	MySQL, NoSQL
6.	Cloud Database	Database service on cloud by the administrator	IBM Cloudant
7.	File Storage	Storing the random values to compare with threshold value	IBM Block Storage
8.	External API-1	Effective data generation	IBM Watson API
9.	External API-2	Google sign-in	Google API
10.	Machine Learning Model	To recognize file pattern(here, graphical mode of statistical data is generated)	Object Recognition Model(IBM Watson and Node-RED)
11.	Infrastructure(Server/Cloud)	Software Library Workspace, expanding Application Management	Cloud Foundry(IBM Cloudant), adding @EnableConfigServer annotation in Spring Boot Application Class file.

Table-2: Application Characteristics:

S.No	Characteristics	Description	Technology
1.	Open-Source Frameworks	Open source code freely available and modified according to the requirement-Net(Microsoft Framework) Zend Framework	Linux operating system, Angular Js, Bootstrap
2.	Security Implementations	Login credentials, PINs, biometric scans and security tokens. Firewall: governs traffic to, from or by application.	Encryption, MAC(Mandatory Access Control),SHA-256 Firewall: Cloudflare Spectrum
3.	Scalable Architecture	Handle a growing user base without affecting the user experience and the app's performance.	Cloudinary using degree of AI.
4.	Availability	Computing environments configured to provide nearly full-time availability.	React Native, jQuery Mobile
5.	Performance	Ensures stable functioning Creating Offline mode	Python, React Native