PROJECT PHASE II

TECHNOLOGY ARCHITECTURE

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| --- | --- |
| TEAM ID | PNT2022TMID17622 |
| PROJECT NAME | Real-Time River water Quality Monitoring and Control System |
| MAXIMUM MARKS | 4 MARKS |

TECHNICAL ARCHITECTURE:

**USER**

**IBM cloud**

**Admin**

**1**

**2**

**3**

**4**

**Services**

**WATSON**

**Web Interface**

**Web UI**

**Received Data from Sensors**

**Cloud Storage**

**Data Base**

COMPONENTS & TECHNOLOGIES:

|  |  |  |  |
| --- | --- | --- | --- |
| S.No | Component | Description | Technology |
| 1. | Received Data from Sensors | Data acquired from sensor devices installed along the river's banks. | ESP32 wifi module |
| 2. | Web Interface | The obtained data was visibly displayed. | HTML, CSS,  JavaScript |
| 3. | Database | Data Type, Configurations etc | 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 may be measured by embedding sensors in rivers. | PH-sensor |
| 2. | Temperature Monitoring | River water temperature may be measured. | Temperature sensor |
| 3. | Pollution Monitoring | River water clarity and purity may be measured. | Conductive sensor |
| 4. | Soil level Monitoring | The quantity of dirt in the river water may be calculated. | Turbidity sensor |