**Project Design Phase-II**

**Technology Stack (Architecture & Stack)**

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| Date | 15 November 2023 |
| Team ID | Team-591881 |
| Project Name | River Water Quality Forecasting |
| Maximum Marks | 4 Marks |

**Technical Architecture:**

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| --- | --- |
|  | Guidelines:   1. Include all the processes (As an application logic / Technology Block) 2. Provide infrastructural demarcation (Local / Cloud) 3. Indicate external interfaces (third party API’s etc.) 4. Indicate Data Storage components / services 5. Indicate interface to machine learning models (if applicable) |

**Table-1 : Components & Technologies:**

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| --- | --- | --- | --- |
| **S.No** | **Component** | **Description** | **Technology** |
| 1. | Data Collection | Gather and collect data from various sources | CSV, Web scraping tools |
| 2. | Data Preparation | Clean and transform data for analysis | Pandas |
| 3. | Data Visualization | Create interactive visualizations and dashboards | Seaborn, Scikit-Learn, scipy |
| 4. | User Interface | Create a webpage to display the values | HTML, CSS, Flask |

**Table-2: Application Characteristics:**

|  |  |  |  |
| --- | --- | --- | --- |
| **S.No** | **Characteristics** | **Description** | **Technology** |
| 1. | User-Friendly | Easy to use and navigate for a wide audience | HTML, CSS, Flask |
| 2. | Data Visualization | Presents insights through visualizations | Seaborn, Scikit-Learn, scipy, pandas, numpy |