**Project Design Phase-II**

**Technology Stack (Architecture & Stack)**

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| Date | 27 October 2023 |
| Team ID | Team-593053 |
| Project Name | Predicting Mental Health Illness Of Working Professionals Using Machine Learning |
| Maximum Marks | 4 Marks |

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

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| --- | --- | --- | --- |
| **S.No** | **Component** | **Description** | **Technology** |
| 1. | User Interface | How user interacts with the project. | HTML, CSS, Python |
| 2. | ML Model | The machine learning model used for predicting the mental health of working professionals. | Python (sklearn library) |
| 3. | Database | The data containing categorical and numerical columns for the prediction. | CSV |
| 4. | Preprocessing | Cleaning the data and doing different types of analysis on it along with splitting it between training and testing data. | Python (sklearn library) |
| 5. | Evaluation | File storage requirements | Local Filesystem |
| 6. | Infrastructure (Server / Cloud) | Application Deployment on Local System. | Google Cloud. |

**Table-2: Application Characteristics:**

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| --- | --- | --- | --- |
| **S.No** | **Characteristics** | **Description** | **Technology** |
| 1. | Open-Source Frameworks | We leverage various open-source frameworks and technologies to build a robust and scalable platform. | Django |
| 2. | Security Implementations | Security is of paramount importance in our mental health prediction and support system for working professionals. We employ a robust set of security implementations to protect user data and ensure the privacy and confidentiality of sensitive information. | SSL,TSL protocols. 2- Factor Authentication |
| 3. | Scalable Architecture | Scalability is a critical feature of our mental health prediction and support system for working professionals. Our architecture is designed to accommodate an increasing user base and growing data volumes efficiently. | MongoDB, Redis |
| 4. | Availability | Ensuring high availability is a critical aspect of our mental health prediction and support system to guarantee that users can access the platform reliably, 24/7. | CDN like cloudfare. |