**Project Design Phase-II**

**Technology Stack (Architecture & Stack)**

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| --- | --- |
| Date | 25 October 2023 |
| Team ID | Team-593212 |
| Project Name | Deep Learning Fundus Image Analysis For Early Detection Of Diabetic Retinopathy |
| Maximum Marks | 4 Marks |

**Technical Architecture:**

A diagram of a software process

Description automatically generated with medium confidence

Table-1: Technical Components

|  |  |  |  |
| --- | --- | --- | --- |
| **S.No** | **Component** | **Description** | **Technology** |
| 1 | User Interface | Web-based user interface for interaction | HTML, CSS, JavaScript |
| 2 | Backend Logic | Backend logic for data processing and integration | Python, Flask |
| 3 | Machine Learning Model | Diabetic retinopathy detection model | ResNet-50 |
| 4 | Database | Storage of curated dataset and user data | MySQL or SQLite (for local storage) |
| 5 | File Storage | Storage for model files and user uploads | Local File system |

Table-2: Application Characteristics

|  |  |  |  |
| --- | --- | --- | --- |
| **S.No** | **Characteristics** | **Description** | **Technology** |
| 1 | Open-Source Frameworks | Utilized open-source frameworks for web development | HTML, CSS, JavaScript, Python, Flask |
| 2 | Security Implementations | Implemented basic security measures for data protection | HTTPS, Basic Authentication |
| 3 | Scalable Architecture | Implemented a scalable architecture to handle increasing users | Micro services Architecture |
| 4 | Availability | Ensured basic availability through reliable hosting and server setup | Reliable Hosting, Server Setup |
| 5 | Performance | Optimized for performance with efficient algorithms and code | Efficient Algorithms, Code Optimization |