**Project Design Phase-II**
**Technology Stack (Architecture & Stack)**

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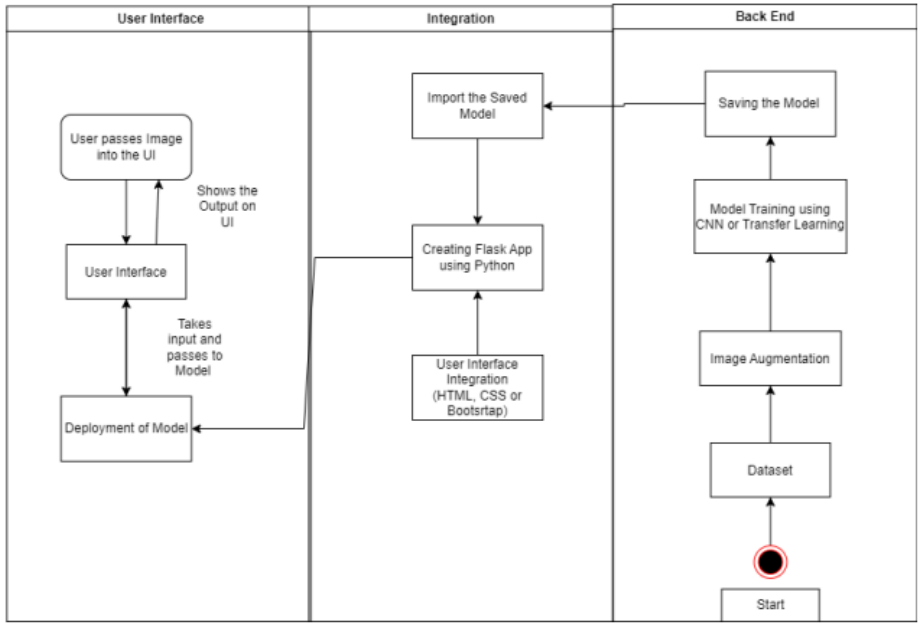
|---|---|
| Date | 01 November 2023 |
| Team ID | Team-593005 |
| Project Name | AI-enabled car parking system using OpenCV |
| Maximum Marks | 4 Marks |

**Technical Architecture:**

The Deliverable shall include the architectural diagram as below and the information as per the table1 & table2




**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:**

| S.No | Component | Description | Technology |
|---|---|---|---|
| 1. | User Interface | How user interacts with application e.g. Web UI, Mobile App, Chatbot etc. | HTML, CSS, JavaScript / Angular Js / React Js etc. |
| 2. | Application Logic-1 | Logic for a process in the application | Python |
| 3. | Database | Collect the Dataset Based on the Problem Statement | File Manager |
| 4. | File Storage/ Data | File storage requirements for Storing the dataset | Local System, Google Drive |
| 5. | Frame Work | Used to Create a web Application, Integrating Frontend and Back End | Python Flask |
| 6. | Deep Learning Model | Purpose of Model | OpenCV, CNN |
| 7. | Infrastructure | Application Deployment on Local System | Local Server |

**Table-2: Application Characteristics:**

| S.No | Characteristics | Description | Technology |
|---|---|---|---|
| 1. | Open-Source Frameworks | Python's Flask or any basic web framework | Python Flask |
| 2. | Security Implementations | Basic encryption for data transmission, simple access controls | Basic Encryption (e.g., HTTPS), Basic Access Contro |
| 3. | Scalable Architecture | Simple, non-distributed architectur | Single-Server Setup |

| S.No | Characteristics | Description | Technology |
|---|---|---|---|
| 4. | Availability | Local server setup for development and testing | Local Server |
| 5. | Performance | Basic performance considerations for local use | Basic Caching Strategies, Local Testing |