**Project Design Phase-II**

**Solution Requirements (Functional & Non-functional)**

|  |  |
| --- | --- |
| Date | 10 May 2023 |
| Team ID | NM2023TMID01052 |
| Project Name | Project-  **“AI enabled car parking using OpenCV”** |
| Maximum Marks | 4 Marks |

**Functional Requirements:**

Following are the functional requirements of our proposed solution.

|  |  |  |
| --- | --- | --- |
| **FR No.** | **Functional Requirement (Epic)** | **Sub Requirement (Story / Sub-Task)** |
| **FR-1** | **load the video** | load the appropriate parking lot video. |
| **FR-2** | **Analyse of video** | Preparation of raw data and make it suitable for building of machine learning model. |
| **FR-3** | **Building Artificial Intelligence model** | * Load the video in the model * Determine the machine learning techniques that will be used to train the AI model. * Process the video and get output * Deploy the model |
| **FR-4** | **Train the data** | Train the model using training video. |
| **FR-5** | **Test the data** | At last, test the model for evaluation of final model. |

**Non-functional Requirements:**

Following are the non-functional requirements of our proposed solution.

|  |  |  |
| --- | --- | --- |
| **FR No.** | **Non-Functional Requirement** | **Description** |
| **NFR-1** | **Usability** | It can be use by all the drivers in the parking lot to know the empty lot |
| **NFR-2** | **Security** | Providing secure system to all the users who are all using the parking lot |
| **NFR-3** | **Reliability** | System will operate without failure for a specific period of time. |
| **NFR-4** | **Performance** | Our model predictions are same as the true values. So, the performance is higher. |
| **NFR-5** | **Availability** | Available to different group of companies which has largest parking lot. |
| **NFR-6** | **Scalability** | In our model, Prediction of parking lot will be faultless. |