**Project Design Phase-II**

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

|  |  |
| --- | --- |
| Date | 20 October 2022 |
| Team ID | PNT2022TMID01272 |
| Project Name | Project - Statistical Machine Learning Approaches to Liver Disease Prediction |
| Maximum Marks | 4 Marks |

**Functional Requirements:**

Following are the functional requirements of the proposed solution.

|  |  |  |
| --- | --- | --- |
| **FR No.** | **Functional Requirement (Epic)** | **Sub Requirement (Story / Sub-Task)** |
| FR-1 | User Registration | Registration through Website  Registration through Application |
| FR-2 | User Input | The dataset should be uploaded(blood test report). |
| FR-3 | Building the system | Dataset will be splitted into training and test dataset and then the model will be trained using training dataset. |
| FR-4 | Prediction model | After getting the dataset from the user the pattern of the blood content will be learned using all the algorithms and then it will predict whether the person is affected by liver disease or not. |
| FR-5 | Algorithm of prediction of disease | Machine learning |
| FR-6 | Output | Result will be shown at the last whether the person is affected or not. |

**Non-functional Requirements:**

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

|  |  |  |
| --- | --- | --- |
| **FR No.** | **Non-Functional Requirement** | **Description** |
| NFR-1 | **Usability** | It is very simple and easy way of predicting liver disease in an early stage. |
| NFR-2 | **Security** | Early prediction of disease allows patients to take treatment in early stage and it will save many lives. |
| NFR-3 | **Reliability** | This method will offer better performance and make it more dependable. |
| NFR-4 | **Performance** | This provides more than 90% accuracy. Thus, it has high performance rate. |
| NFR-5 | **Availability** | By having the dataset of the patient such as blood reports disease can be predicted. |
| NFR-6 | **Scalability** | It has more efficiency in detecting liver disease. |