

**Project Design Phase-II**  
**Solution Requirements (Functional & Non-functional)**

Date	07 November 2022
Team ID	PNT2022TMID48809
Project Name	Detecting Parkinson's Disease using Machine Learning
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	Home Page	<ul style="list-style-type: none"><li>▪ Description of Parkinson Disease, causes, symptoms and medications to be used.</li></ul>
FR-2	Test Vital Page-Uploading Image	<ul style="list-style-type: none"><li>▪ Uploading through a file input button</li><li>▪ Can input image file types like png,jpg,jpeg</li><li>▪ Input the required details that has been asked for</li></ul>
FR-3	Result/Prediction of disease	<ul style="list-style-type: none"><li>▪ If Positive – suggests to consult a doctor and to undergo treatment like deep brain stimulation, Leison Surgery, neural grafting or tissue transplants.</li><li>▪ If Negative – suggests preventive measures and symptoms.</li><li>▪ Important note is that the treatment may vary according to the individual.</li></ul>

**Non-functional Requirements:**

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

FR No.	Non-Functional Requirement	Description
NFR-1	<b>Usability</b>	<ul style="list-style-type: none"><li>▪ Can be used by people of any age groups.</li><li>▪ Open source.</li><li>▪ Easily Accessible.</li><li>▪ Illiterate people can also use efficiently.</li></ul>
NFR-2	<b>Security</b>	<ul style="list-style-type: none"><li>▪ Only the admin will be able to access the patient details so that the website will be more secured.</li></ul>
NFR-3	<b>Reliability</b>	<ul style="list-style-type: none"><li>▪ There is no possibility of hacking or misusing the data.</li><li>▪ No identity threat is possible</li><li>▪ Accuracy of prediction is very high when compared to the existing models since Classification, HOG, CNN makes it more reliable and responsive.</li></ul>

NFR-4	<b>Performance</b>	<ul style="list-style-type: none"> <li>▪ Prediction results are obtained within seconds and the overall time is 3x times less when compared to the waiting time to get the results in medical centres or hospitals.</li> </ul>
NFR-5	<b>Availability</b>	<ul style="list-style-type: none"> <li>▪ The website can be accessible the entire day of 24 hrs. We had followed “Anytime, Anywhere accessible” policy.</li> </ul>
NFR-6	<b>Scalability</b>	<ul style="list-style-type: none"> <li>▪ Ability to provide proper medications, consultation, suggestions and results immediately.</li> <li>▪ Able to access even from mobile phones that has internet connectivity</li> </ul>