

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

Team ID	PNT2022TMID24632
Project Name	Project - 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>