

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

<b>Date</b>	<b>11 October 2022</b>
<b>Team ID</b>	<b>PNT2022TMID46184</b>
<b>Project Name</b>	<b>Natural Disaster Intensity Analysis and Classification using Artificial Intelligence</b>
<b>Maximum Marks</b>	<b>4 Marks</b>

**Functional Requirements :**

Following are the functional requirements of the proposed solution.

<b>FR No.</b>	<b>Functional Requirement (Epic)</b>	<b>Sub Requirement (Story / Sub-Task)</b>
FR - 1	User Registration	<ul style="list-style-type: none"><li>• Registering via Google Accounts</li><li>• Registering via Product's own user management system</li></ul>
FR - 2	User Authentication	<ul style="list-style-type: none"><li>• Verification through OTP</li><li>• Verification through Email Link</li></ul>

FR - 3	Designation of Region	<ul style="list-style-type: none"> <li>• Ease of selection of necessary areas to be monitored</li> <li>• Versatile and Flexible operations on designated areas</li> </ul>
FR - 4	Analysis of Required Phenomenon	<ul style="list-style-type: none"> <li>• Simple and easy analysis on the specific phenomenon to be observed</li> </ul>
FR - 5	Accumulation of required Data	<ul style="list-style-type: none"> <li>• Fast and Efficient data gathering capabilities regarding past event analysis and future prediction</li> </ul>
FR - 6	Organizing Unstructured data	<ul style="list-style-type: none"> <li>• Processing of raw and clustered data into clear and refined data which is useful for analysis and prediction tasks</li> </ul>
FR - 7	Algorithm selection	<ul style="list-style-type: none"> <li>• The freedom to choose from several classes of algorithm to be used in the process</li> <li>• Customization of algorithm to suit the needs of a specific purpose</li> </ul>
FR - 8	Prediction and analysis of data	<ul style="list-style-type: none"> <li>• Accurate results of the analysis provided by the process</li> <li>• Advanced visualization techniques to help visualize the processed data for effective observation</li> </ul>
FR - 9	Report generation	<ul style="list-style-type: none"> <li>• Restructuring of obtained results into clear and detailed report for future studies</li> </ul>

### **Non-functional Requirements :**

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

<b>NFR No.</b>	<b>Non-Functional Requirement</b>	<b>Description</b>
NFR - 1	<b>Usability</b>	It is well suited for fields requiring diverse application of processes with efficiency , precision and ease.

NFR - 2	<b>Security</b>	It provides a distinct and secure encryption layer to the system interface for additional security standards.
NFR - 3	<b>Reliability</b>	The product is robust and is capable of execution of processes even in the most difficult and unpredictable environments.
NFR - 4	<b>Performance</b>	The product boasts a high precision and efficient working capacity which helps in escalating its performance to the highest degree.
NFR - 5	<b>Availability</b>	Despite the complexity and degree of difficulty in its operation, the product is equipped with all-round maintenance and readily available technical services which provides the necessary support any individual requires in their duties.
NFR - 6	<b>Scalability</b>	The product also possess enough room for the improvement of its specifications to upgrade its capabilities according to the needs of the user and their organization