

# *FUNCTIONAL REQUIREMENTS*

---

<b>TEAM ID</b>	<b>PNT2022TMID31107</b>
<b>PROJECT TITLE</b>	<b>Machine Learning-Based Predictive Analytics for Aircraft Engine</b>
<b>DATE</b>	<b>16 October 2022</b>

<b>S.No</b>	<b>FUNCTIONAL REQUIREMENTS</b>	<b>EXPLANATION</b>
1.	BUSINESS REQUIREMENTS	<p>The characteristics of a proposed system from the viewpoint of the system's end user like a CONOPS. Products, systems, software, and processes are ways of how to deliver, satisfy business requirements.</p> <ul style="list-style-type: none"><li>• Identifying the relevant stakeholders.</li><li>• Establish project goals and objectives.</li><li>• Elicit requirements from stakeholders.</li><li>• Document the requirements.</li><li>• Confirm the requirements.</li><li>• Prioritize the requirements.</li></ul>
2.	USER REQUIREMENTS	<p>Specifies what the software what to be able to do.</p> <ul style="list-style-type: none"><li>• They should bring valuable results with accurate prediction.</li><li>• Prediction must be on time and to be valuable to save the lives.</li><li>• They need accuracy while predicting with pre-historical datasets.</li></ul>
3.	PRODUCT REQUIREMENTS	<p>It defines the product you are about to build.</p> <ul style="list-style-type: none"><li>• Its main goal is to predict the failure of defected aircraft engine that is working or not.</li><li>• Its main feature is to give exact values on working time of aircraft engine . It is done with the help of machine learning techniques.</li><li>• Its functionality and behavior on prediction values to be more helpful in determining the life on engines .so it must be helpful in giving useful results to technicians about maintenance of running engines</li></ul>

4.	TRANSACTION HANDLING	<p><i>It means that the user can Access multiple data from the database without being interfaced with others.</i></p> <ul style="list-style-type: none"> <li>• <i>Historical data can be accessed without any issues.</i></li> <li>• <i>Technicians must have access with the database maintenance.</i></li> <li>• <i>Results must be accessible to everyone with the permission to predict the values.</i></li> </ul>
5.	BUSINESS RULES AND CERTIFICATION REQUIREMENTS	<p><i>There must be a proper certificates will be given for the project.</i></p> <ul style="list-style-type: none"> <li>• <i>It must be a valuable one.</i></li> <li>• <i>It might issued by the proper aviation industry management system under the control of government.</i></li> <li>• <i>Certification enables it as Non-hazardous project .It will raise the trust on aviation industry among the people.</i></li> </ul>