Project Design Phase-II

Solution Requirements (Functional & Non-functional)

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| Date | 17 October 2022 |
| Team ID |  |
| Project Name | Project – Machine learning based on air craft engine |
| Maximum Marks | 4 Marks |

**Functional Requirements:**

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| **FR No.** | **Functional Requirement (Epic)** | **Sub Requirement (Story / Sub-Task)** |
| FR-1 | User Input | User inputs an URL in required field to check its  validation. |
| FR-2 | Website Comparison | Model compares the websites using Blacklist and  Whitelist approach. |
| FR-3 | Feature extraction | After comparing, if none found on comparison then it  extracts feature using heuristic and visual similarity approach. |
| FR-4 | Prediction | Model predicts the URL using Machine Learning  algorithms such as Logistic Regression, KNN |
| FR-5 | Classifier | Model sends all output to classifier and produces final  result |
| FR-6 | Announcement | Model then displays whether website is a legal site or a  phishing site. |
| FR-7 | Events | This model needs the capability of retrieving and  displaying accurate result for a website |

**Non-functional Requirements:**

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| **FR No.** | **Non-Functional Requirement** | **Description** |
| NFR-1 | **Usability** | The analysis of aircraft engines is essential for ensuring the smooth functioning of each component of an aircraft engine |
| NFR-2 | **Security** | Refers to the security measures that individuals and organizations can take to prevent a engine failure or  to reduce engine failure |
| NFR-3 | **Reliability** | The reliability analysis is also important to predict their scheduled maintenance event and the Remaining Useful Life (RUL) of engine parts. Existing approaches for engine reliability are based on numerical methods, which do not predict RUL accurately. |
| NFR-4 | **Performance** | The time, energy efficiency, reliability and safety are function-critical. Overall performance, as a combination of these design criteria, depends on the interaction of an ever-increasing amount of highly specialized subsystems. |
| NFR-5 | **Availability** | The web dashboard must be available to users 99.98 percent of the time evert month during business hours EST. |
| NFR-6 | **Scalability** | Assesses the highest workload under which the system will still meet the performance requirements. The systems must be scalable enough to support 1,000,000 visits at the same time while maintaining optimal performance. |