ProjectDesignPhase-II

SolutionRequirements(Functional&Non-functional)

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| Date | 07May2023 |
| TeamID | NM2023TMID19171 |
| ProjectName | Automated weather classification using transfer learning |

FunctionalRequirements:

Followingarethefunctionalrequirementsoftheproposedsolution.

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| **FRNo.** | **FunctionalRequirement(Epic)** | **SubRequirement(Story/Sub-Task)** |
| FR-1 | UserRegistration | Registration through FormRegistration through GmailRegistrationthroughLinkedIN |
| FR-2 | UserConfirmation | ConfirmationviaEmail  ConfirmationviaOTP |
| FR-3 | UserInterface | It allows users to capture images of garbage and seetheresultsoftheclassificationinreal-time. |
| FR-4 | AIModel | TheprojectshoulduseanAIalgorithmthatcan learn  fromdataandimproveovertime. |
| FR-5 | Real-timeClassification | It should be able to classify images quickly andaccuratelyassoonastheyarecapturedbyacamera. |
| FR-6 | FeedbackLoop | Thisfeedbackcanbeusedtoimprovetheaccuracyof  themodelandtheuserinterface. |

Non-functionalRequirements:

Followingarethenon-functionalrequirementsoftheproposedsolution.

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| **FRNo.** | **Non-FunctionalRequirement** | **Description** |
| NFR-1 | **Usability** | Weather Forecasting is crucial since it helps to determine future climate changes. |
| NFR-2 | **Security** | Stay indoors and move to a shelter |
| NFR-3 | **Reliability** | A seven-day forecast can accurately predict the weather about 80 percent of the time |
| NFR-4 | **Performance** | Performance forecasting is an essential service to support decision-taking in the concept, design and operational phases of an asset, meeting the production efficiency challenge by enhancing operational performance. |
| NFR-5 | **Availability** | The Weather app includes a number of features that provide information about current and forecasted weather. Some features aren't currently available in every country or region. |
| NFR-6 | **Scalability** | Global efforts to bring about crucial improvements in supercomputing efficiency and energy usage were placed center stage this week as the European Centre for Medium-Range Weather Forecasts (ECMWF) welcomed users and vendors from around the world to London for the Cray |