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

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|---|---|
| Date | 23 October 2022 |
| Team ID | PNT2022TMID28739 |
| Project Name | Emerging methods for early detection of forest fire |
| Maximum Marks | 4 Marks |

**Functional Requirements:**

| FR No. | Functional Requirement (Epic) | Sub Requirement (Story / Sub-Task) |
|---|---|---|
| FR-1 | User collects the real time data. | • The user collects the real time data to identify the exact weather conditions. |
| FR-2 | Cameras fixed in the forest. | • The captured data are collected from the cameras. |
| FR-3 | Store the data. | • The data are stored in the cloud |
| FR-4 | Fire Monitoring. | • The forest is continuously monitoring through the camera and drones. |
| FR-5 | Fire detection. | • The fire is detected using CNN(Convolutional Neural Network)model. |

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| FR-6 | Notification. | • Once the fire is detected it is notified through the message and fire alarm system. |

**Non-functional Requirements:**

| FR No. | Non-Functional Requirement | Description |
|---|---|---|
| NFR-1 | **Usability** | • Most essential trees can be saved.<br>• Many valuable extinction species can be saved. |
| NFR-2 | **Security** | • It is used to secure environment. |
| NFR-3 | **Reliability** | • The model is more accurate to find the fire at the earliest. |
| NFR-4 | **Performance** | • In the model, the alert message is an immediate action without any lag. |
| NFR-5 | **Availability** | • The model is available at 24/7. |
| NFR-6 | **Scalability** | • The trained model is capable of adapting according to the dataset and the environment situation. |