

Project Design Phase-II

Solution Requirements

(Functional & Non-Functional)

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| Date | 17 October 2022 |
| Project Name | AI-based localization and classification of skin disease with erythema |

Functional Requirements:

These are the requirements that the end user specifically demands as basic facilities that the system should offer. All these functionalities need to be necessarily incorporated into the system as a part of the contract. These are represented or stated in the form of input to be given to the system, the operation performed, and the output expected. They are basically the requirements stated by the user which one can see directly in the final product. Following are the functional requirements of the proposed solution.

| FR No. | Functional Requirement (Epic) | Sub Requirement (Story / Sub-Task) |
|--------|-------------------------------|---|
| FR-1 | User Registration | Registration through Form Registration through Gmail Registration using phone, laptop, computer |
| FR-2 | User Confirmation | Confirmation via Email Confirmation via OTP |
| FR-3 | User Profile | Users provides their medical history |
| FR-4 | User Interface | User login form Admin login form |
| FR-5 | User Uploads Images | Upload Images as jpeg |

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|------|-----------------|---------------------------------------|
| | (Input) | Upload Images as png |
| FR-6 | Output Analysis | Output analyzed through trained model |

Advantages

- It allows you to determine if the application has all the functionalities specified in the functional requirements.
- The most cost-effective time to correct errors is during the functional requirement gathering stage.

Non-functional Requirements:

These are basically the quality constraints that the system must satisfy according to the project contract. The priority or extent to which these factors are implemented varies from one project to other. They are also called non-behavioral requirements. Following are the non-functional requirements of the proposed solution.

| FR No. | Non-Functional Requirement | Description |
|--------|----------------------------|---|
| NFR-1 | Usability | Used to classify skin disease with erythema |
| NFR-2 | Security | It ensures about patient safety during process It prevents unauthorized individuals from accessing user's data |
| NFR-3 | Reliability | Even with more users, there will be a good performance without failure Less time consumption |
| NFR-4 | Performance | With greater accuracy, the performance is high The trained model can predict an accurate result and took less time when compare to reality |
| NFR-5 | Availability | With a good system, all authorized users can access it Helps to get correct treatment at a correct time, which helps patients |

| | | |
|-------|-------------|---|
| | | to heal earlier |
| NFR-6 | Scalability | Performance will be good even with the higher user traffic |

Advantages

- They ensure the software system follows legal and adherence rules.
- They ensure good user experience, ease of operating the software, and minimize the cost factor.