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Project Design Phase -II

Solution Fit Architecture

System Requirements :

A requirement is a feature that the system must have or a constraint that it must to be accepted by the client. Requirement Engineering aims at defining the wants of the system under construction. Requirement Engineering include two main activities requirement elicitation which results in the specification of the system that the client understands and analysis which in analysis model that the developer can unambiguously interpret. A requirement may be a statement about what the proposed system will do.

Requirements can be divide into two major categories:
- Functional Requirements.
- Non-Functional Requirements.

Functional Requirements:

A Functional Requirement may be a description of the service that the software must offer. It describes a software system or its component. A function is nothing but inputs to the software, its behavior, and outputs. It are often a calculation, data manipulation, business process, user interaction, or the other specific functionality which defines what function a system is probably going to perform.

Functional Requirements describe the interactions between the system and its environment independent of its application.
- Applying the algorithms on the test data.
- Display the result with the description of having Parkinson's or not.

Non-Functional Requirements:

Non-Functional Requirements specifies the standard attribute of a software. They judge the software supported Responsiveness, Usability, Security, Portability, and other non-functional standards that are critical to the success of the software.

An example of a nonfunctional requirement, "how fast does the website load?" Failing to satisfy non-functional requirements may result in systems that fail to satisfy user needs.

Non-functional Requirements allow you to impose constraints or restrictions on the planning of the system across the varied agile backlogs.
- Accuracy
- Reliability
- Flexibility

System Configuration

Software Requirements:

1. Software:
- Spyder
- Google Colab

2. Operating System: Windows 10

3. Tools: Web Browser
4. Python Libraries: numpy, pandas, matplotlab, seaborn, sklearn, pickle.

Hardware Requirements:
1. RAM: 4 GB or above
2. Storage: 30 to 50 GB
3. Processor: Any Processor above 500MHz

Feasibility Study:
The preliminary investigation examines project feasibility, the likelihood the system are going to be useful to the organization. The main objective of the feasibility study is to check the Technical, Operational, and Economical feasibility for adding new modules and debugging old running systems. All systems are possible if they have unlimited resources and infinite time to do a task. There are aspects within the feasibility study portion of the preliminary investigation:

- Economical Feasibility
- Technical Feasibility
- Operational Feasibility

4.3.1 Economic Feasibility:
As system are often developed technically which are going to be used if installed must still be an honest investment for the organization. In the economic feasibility, the event cost in creating the system is evaluated against the last word benefit derived from the new systems. Financial benefits must equal or exceed the costs. The system is economically feasible. It doesn't require any addition hardware or software. Since the interface for this system is developed using the existing resources and technologies java1.6 open source, there is nominal expenditure and economic feasibility for certain.

4.3.2 Technical Feasibility:
This assessment focuses on the technical resources available to the organization. It helps organizations determine whether the technical resources meet capacity and whether the technical team is capable of converting the ideas into working systems. Technical feasibility also involves evaluation of the hardware, software, and other technology requirements of the proposed system. This assessment is predicated on an overview design of system requirements, to work out whether the corporate has the technical expertise to handle completion of the project. When writing a feasibility report, the subsequent should be taken to consideration:

- A brief description of the business to assess more possible factors which could
- affect the study
- The part of the business being examined
- The human and economic factor
- The possible solutions to the problem At this level, the concern is whether the proposal is both technically and legally feasible (assuming moderate cost). The technical feasibility assessment is focused on gaining an understanding of the present technical resources of the organization and their applicability to the expected needs of the proposed system. It is an evaluation of the hardware and software and how it meets the need of the proposed system.

4.3.3 Operational Feasibility:
Proposed projects are beneficial only if they can be turned out into information

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system. That will meet the organization's operating requirements. Operational feasibility aspects of the project are to be taken as a crucial a part of the project implementation. Some of the important issues raised are to check the operational feasibility of a project includes the following:

- Is there sufficient support for the management from the users?
- Will the system be used and work properly if it is being developed and implemented?
- Will there be any resistance from the user that will undermine the possible application benefits? This system is targeted to be in accordance with the above mentioned issues. Beforehand, the management issues and user requirements have been taken into consideration. So there is no question of resistance from the users that can undermine the possible application benefits. The well-planned design would ensure the optimal utilization of the computer resources and would help in the improvement of performance status.