

Software Requirements Specification For E-Health Architecture

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Introduction

This segment gives a degree portrayal and outline of everything remembered for this SRS record. Additionally, the reason for this archive is portrayed and a rundown of shortened forms and definitions is given.

Purpose

The reason for this report is to give a point by point depiction of the necessities for proposing a proficient "E-Health Architecture". It will delineate the reason and complete presentation for the advancement of framework. This record is essentially proposed for a client's endorsement and as a source of perspective for building up the demo adaptation.

Scope

The title “E-Health Architecture” itself describes its objective. E-Health Architecture is a hardware and software-based integrated web architecture which aims to provide online health facilities. This architecture will help an organization launch any web-based health program over the country.

Definition & Acronyms

This section consists of terms, their definitions and acronyms which will be used throughout the document.

Dashboard: A **dashboard** is the panel for any system which contains tools as software's to monitor and deploy services.

Dedicated Server: A **dedicated server** is a single computer in a network reserved for serving the needs of the network

Health Facilities: **Health facilities** are places that provide health care. They include hospitals, clinics, outpatient care centers, and specialized care centers, such as birthing centers and psychiatric care centers.

Overview of Document

This section describes the overview of the entire document. Brief introduction is provided here.

Section 1: This section describes the purpose and scope of the project.

Section 2: This section describes the functions, product perspective, various user characteristics, constraints, limitations, assumptions and dependencies.

Section 3: This section describes the requirements of the entire system. This includes hardware requirements, user interfaces, use case diagram, design constraints, functional and non-functional requirements.

Section 4: This section describes about the system evolution

Description of Project

Overall Description

This segment will give an outline of the entire framework showing its communication with other interrelated frameworks. The fundamental usefulness of the framework will likewise be clarified. This part will clarify

the sorts of partners who will utilize the framework and their separate accessible usefulness. The imperatives and suspicions utilized for the framework is additionally clarified toward the end.

Product functions

With the worker side online interface or dashboard, framework manager will actually want to convey the wellbeing applications, so customers (all wellbeing offices) will actually want to utilize them. While in customer side, the specialized official will utilize the web application on the web and can likewise see the accessible applications on the web. Information contribution by each wellbeing offices from everywhere the nations will simultaneously be put away in the worker through the E-Health Architecture. This information will additionally be arranged, investigated and imagined by an information engineer utilizing some E-Health information representation programming projects. At that point the report created will be again dispersed to explicit focused on specialists through dashboard.

Product Perspectives

The framework will comprises of two sections: one Hardware setup part and one Web Portal.

Equipment arrangement will be utilized to build up an actual association of the multitude of Health Facilities of a country while web-based interface will be utilized to stack online applications in the zones associated by the models. Equipment arrangement part basically empowers foundation of a coordinated worker customer engineering. This incorporates foundation of a high performance dedicated server in central unit of Ministry of Health and Population.

User characteristics

There are four types of users who interact with the system: client side users i.e. employees or lower level health facility users, data engineers, system administrator, high level officers.

Lower level health facilities users are only concerned with limited objectives like data input to the server. They will input all medical or

patient related data to the server. To input data users must be able to search and view their required application online in the repository.

Data engineers are only concerned with data and data operations. Data engineers will be filtering the raw data. They will classify it from data sets. From the generated datasets; data will be analysed using applications provided by the architecture. Then furthermore report generation according to the necessity of high level managers is also done by the data engineers.

High Level Officers are only concerned with the use of the dashboard. High level officers are also client-side users. They use the architecture to use certain components like report generating, viewing and exporting tools.

System Administrator A system administrator is solely responsible for smooth operation of E-Health Architecture. It is system administrator who monitors, maintains and authorizes the hardware components as well as software resources to the end users. System administrator is responsible for security of the whole architecture.

Besides these four user characteristics, for the development of software's and its stability: Software Developers and Support Communities are also essential. They are responsible for assessment activities and communicating with various stakeholders of the system.

Constraints

The engineering is focused to run everywhere on the country. So being a colossal framework it needs to confront a few requirements and restrictions which may slack the presentation of engineering. As the engineering will be set up with government uphold, after the framework is set up, gifted labour will likewise assume key part in conveying the quality support of the clients. As E-Health design is tied in with offering types of assistance on the web, we should ensure the force supply, web, web transfer speed and correspondence with focal worker is consistently up and working. The

engineering will get tremendous no. of information so the characterization of uses, directed client gatherings and grouping of information are some fundamental requirements to be considered all through the turn of events and utilization of framework.

Assumption and Dependencies

The engineering will zero in on giving E-Health offices on the web. So our supposition that will be that the web office, power supply, reinforcement power, web data transfer capacity is consistently up and working. Another suspicion likewise a reliance for the engineering is equipment setup of the focal worker. We accept that the equipment will be above determination, so it won't have to deal with any issue in future.

Specific Requirements

This section contains all of the functional and quality of the system. It gives a detailed description of the system and all its features.

External Interface Requirements

This section provides a detailed description of all inputs into and outputs from the system. It also gives a description of the hardware and software interfaces and provides basic prototypes of the user interface.

User Interface

The major interfaces of the system are:

Dashboard ()

The dashboard will be accessible with all user types. Here they will perform respective tasks according to their permission level.

UploadSoftware ()

This interface is accessible to system administrator who will upload

E-Health Projects to the architecture.

View Software ()

Here all the software uploaded by system administrator is collected. Users will view application only assigned to them.

Generate Report ()

This interface will be used mainly by Data Engineer to analyze data and produce report. Also high level managers will see this interface.

Hardware Interfaces

Despite the fact that this engineering is equipment programming coordinated web engineering, we won't be planning a particular equipment interface to run the framework. Our framework is an electronic framework, so we will dispatch it in a few PCs on the web.

Design Constraints

This section includes the design constraints on the architecture caused by the hardware.

Software system attributes

The requirements in this section specify the required reliability, availability, security and maintainability of the software system.

Functional Requirements

ID: FR1

TITLE: Access the online interface

DESC: A client ought to have the option to get to the web gateway. The entrance ought not be confined to enrolled clients. Somebody who isn't enlisted ought to likewise have the option to peruse the applicable eHealth data given by the online interface.

Rodent: To get to wellbeing related data

DEP: None

ID: FR2

TITLE: Constantly refresh and inform government's Health/eHealth strategy.

DESC: The web-based interface ought to consistently be exceptional concerning the public authority's policy. It ought to advise the clients about the new strategy and rules made by the power.

Rodent: to surrender client a to-date data DEP: None

ID: FR3

TITLE: User enlistment

DESC: A client, as determined in prior segment should have the option to enroll their qualifications. They ought to give their fundamental data about themselves for eg. name, address, email, telephone number. They ought to likewise distinguish themselves the sort of clients (referenced under client attributes) they are.

Rodent: In request to be a contributing element in the eHealth Architecture

DEP: FR1

ID: FR4

TITLE: User Verification:

DESC: User ought to have the option to confirm them through their email. A connection in the email ought to be accommodated the client to follow on the off chance that he/she is logging for the absolute first time.

Rodent: In request for a genuine client to enroll

DEP: FR1, FR3

ID: FR5

TITLE: User Login

DESC: Given that a client is enrolled, the client ought to have the option to sign into the web-based interface. The framework should keep and keep up the client login data.

Rodent: In request for the client to sign into the framework

DEP: FR1, FR3

ID: FR6

TITLE: Data Entry

DESC: User ought to have the option to fill in the essential wellbeing data. A portion of the key information that ought to be entered by the actual client are as per the following:

- Name of the patient
- Age
- Sex

- Disease analyzed
- Address
- Prescription
- Types of patients
- Diseases endured (wellbeing history)

Rodent: In request for the client to enter medical problems into the framework

DEP: FR1, FR3, FR5

ID: FR7

TITLE: User Identification

DESC: The framework should have the option to recognize the kind of clients who have entered wellbeing data as portrayed in necessity no. 5.

Rodent: In request for the framework to distinguish the kind of client

DEP: FR3, FR4

ID: FR8

TITLE: Acquisition

DESC: The framework ought to have the option to find basic data/information needed by the public authority or the wellbeing service.

Rodent: In request for the framework to get the information entered by the client

DEP: FR6, FR7

ID: FR9

TITLE: Filtering

DESC: After gathering data from different sources, there is a need to discover which data is applicable and which data is unimportant or copied. For the most part, the essential goal of data sifting is to figure out enormous volumes of powerfully gathered data and present those that are probably going to fulfill clients' data needs.

Rodent: In request for the framework to channel in just the applicable data

DEP: FR8

ID: FR10

TITLE: Categorization, Indexing, and Linking

DESC: Indexing, order, and connecting are performed to put together data. Ordering is a basic technique in accomplishing quick and exact looking. It is the issue of doling out names to cases or other data to guarantee that the correct data and information can be recovered at suitable time. All the eHealth related data ought to be classified by certain measures. Connecting intends to build up associations between applicable data with the goal that everything identified with a particular sickness in the framework be situated through interconnected connections.

Rodent: In request for the framework to empower a quick and precise hunt component

DEP: FR8, FR9

ID: FR11

TITLE: Knowledge Creation

DESC: New information can be inferred through various cycles going from information representation to information mining. The separated data, for example, different situational highlights, activities taken, the wellbeing organizations included, achievement of the subsequent results, and the data source, can be coordinated and systematized to produce all around organized catastrophe cases. Those cases are treated as information for future reuse through case-based thinking.

Rodent: In request for the framework to make important data from the procured information

DEP: FR8, FR9, FR10

ID: FR12

TITLE: Maintenance

DESC: The framework will continue to get new wellbeing data and information, and furthermore occasionally eliminates what are duplicated and obsolete.

Rodent: In request for the framework to eliminate repetition

DEP : FR8, FR9, FR10, FR11

Non-Functional Requirements

ID: NFR1

TITLE: Usability

DESC: The framework ought to be not difficult to utilize and learn in each viewpoint. The new clients ought to become acclimated to in the framework quick as could really be expected.

ID: NFR2

TITLE: Reliability

DESC: The framework will be accessible for use at 24 hours per day, 7 days per week. The information stockpiling will be accessible for utilize 24 hours per day, 7 days per week. The framework may get bombed not many occasions in a year and had a little upkeep time.

ID: NFR3

TITLE: Hardware

DESC: Versatile Requirements

These days handheld gadgets are extraordinary compared to other apparatus for crude information section. With the assistance of cell phones patients and other related clinical information can be entered in a hurry. The online interfaces can be gotten to through different advanced cell stage like

System Evolution

The primer phase of E-Health Architecture, gives a high opportunity to advance into better framework with many stable highlights in forthcoming future. Acquiring its solidness, the framework focuses to consolidate more equipment and programming instruments, security and programming refreshes. With the advancement of the framework, it turns out to be increasingly steady and will become hearty E-Health design

Following are some new features which can be expanded in the architecture:

1. Present engineering concentrates just in accessible web office, however in future the design can give web office of its own.
2. Bandwidth allotment and steering highlight can be incorporated in future, so information can be accessible all over and solid for each focused on client gatherings.
3. The engineering can consolidate archives and apparatuses to show clients the utilizations, targets and methods of investigating them.
4. The framework can likewise consolidate blunder revealing, mistake logging highlights with the assistance of GUI.