Software Requirements Specification

for

< Tayf >

Version 1.0 approved

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# Introduction

# *A software requirements specification (SRS) is a comprehensive description of the intended purpose and environment for software under development. The SRS fully describes what the software will do and how it will be expected to perform for release 1.0 of the Cute Autism App (*Taf*).*

## Purpose

In the SRS we solve the problem we face in our current is that the patients with autism, have not received sufficient care to integrate with society, and not allowed to become a

member of the community.

The lack of understanding of the requirements of this group of people is exacerbates the problem. by using our application we hope to help the parents to deal with the patients in different situations .

And also by using the application they can communication with specialized people for any consulting.

They can also buy the supplies that the patient need .

Also to reduce the expenses that prevent parents from taking and not being able to pay a lot of money to the specialized centers

## *Additionally, we writing an SRS to help developers reduce the time and effort needed to achieve their goals as well as save money on development cost ,all requirements specified here are high priority and committed for release 1.0*

## Document Conventions

|  |  |
| --- | --- |
| APP | Tayf Application |
| User | Reviewer or Author. Doctor, Sale man, Patients' parents |
| Stakeholder | Any person with an interest in the project who is not a developer, Patients' parents |
| Database | Collection of all the information monitored by this system, Ministry of Health, specialists. |
| Software Requirements Specification | A document that completely describes all of the functions of a proposed system and the constraints under which it must operate. For example, this document. |

## Project Scope

## *This project is a prototype of a mobile application that helps autistic patients. It is especially useful for parents because of the way they treat them.*

## *The problem we are facing nowadays is that autistic patients have not received adequate care to integrate into society, they are not allowed to become Active member of the community.*

## *Failure to understand the requirements of this group of people exacerbates the problem*

## *By using our application we hope to help parents in dealing with patients and provide a treatment plan and action and tips on how to communicate with them,*

## *Using the application they can communicate with the specialized people for any consultation.*

## *They can also buy supplies that a patient needs.*

## *As well as to reduce the expenses that prevent parents from taking them to the centers and the inability to pay a lot of money, and to provide a customized interface for parents to get rid of pressure on them, we hope to provide a comfortable user experience at the best available prices.*

## References(• https://www.un.org/ar/observances/autism-day, 2021)*•*

## *https://www.webteb.com/child-health/diseases/%D9%85%D8%B1%D8%B6-%D8%A7%D9%84%D8%AA%D9%88%D8%AD%D8%AF.* (2015).

## Overview

The next chapter, the Overall Description section, of this document gives an overview of the functionality of the App. It describes the informal requirements and is used to establish a context for the technical requirements specification in the next chapter.

The third chapter, Requirements Specification section, of this document is written primarily for the developers and describes in technical terms the details of the functionality of the product.

Both sections of the document describe the same software product in its entirety, but are intended for different audiences and thus use different language.

# Overall Description

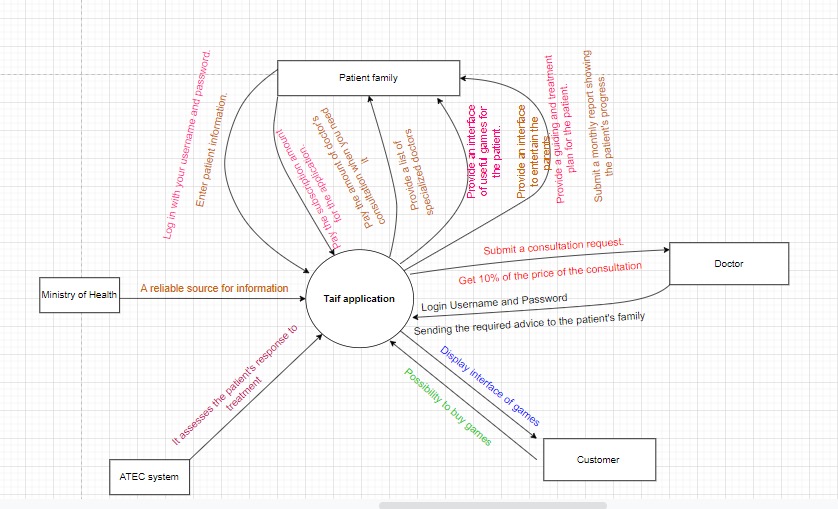
## Product Perspective

It is an application that works in the Android and iOS environments. It is an application that targets a specific category of patients, who are autistic, as our application provides a relative solution to the problem of continuous mixing of autistic patients with patients from other diseases in the specialized centers. As a result of the bad economic conditions and the high price of the session in the centers, the people were unable to pay the costs of the session and the transportation required to reach those centers.

Our application has a relationship with another system (ATEC), where this application prepares a set of questions that parents must answer to know the level of disease and its progress with their patient (ATEC).

The context diagram in the figure below shows the external entities in the system interfaces,

Context digram :



## Product Functions

|  |  |
| --- | --- |
| FE-1: | Register anyone who want use the application through username and password. |
| FE-2: | Giving a treatment plan. |
| FE-3: | Issuing a monthly report showing the extent of the patient's improvement. |
| FE-4: | Providing special games for autistic patients. |
| FE-5: | Provide an interface to entertain the parents. |
| FE-6: | Provide a list of specialist doctors. |

## User Classes and Characteristics

**Patient's family**

Register with your username and password.

Enter patient information.

Follow the treatment plan given during the application.

Possibility to purchase any of the assistive games for autistic patients.

Pay a sum of money when registering for a counseling and treatment plan.

Choosing a specific doctor to take medical advice from and pay the amount of the consultation.

From time to time she receives videos and phrases of entertainment and encouragement.

**Doctor**

Register using your username and password.

Receiving consultations from patients' families.

**Customer**

Possibility to buy any product and pay for it using credit card.

## Operating Environment

|  |  |
| --- | --- |
| **OE-1:** | The taif application shall operate  with the following Web browsers: Microsoft  Internet Explorer ,Netscape Communicator |
| **OE-2:** | The taif application shall operate on  Android environment that shall write in JAVA programming language. |
| **OE-3:** | The taif application shall permit user  access from the corporate Intranet and, if a user  is authorized for outside access through the  corporate firewall, from an Internet connection at  the user's home. |

## Design and Implementation Constraints

|  |  |
| --- | --- |
| **CO-1:** | The possibility of paying patients' families and customers for the application through credit cards in dollar currency |
| **CO-2:** | There must be a guaranteed connection with the ready-made system (ATEC) in order to provide the patients' families with a set of questions so that after answering them, they can determine the extent of their patient's response to treatment |
| **CO-3:** | There must be continuous monitoring by the Ministry of Health to provide the application with information for the treatment plan |
| **CO-4:** | All scripts shall be written in java. |

## User Documentation

|  |  |
| --- | --- |
| The system shall provide an online hierarchical and cross-linked help system in HTML that describes and illustrates all system functions. | **UD-1:** |
| For the first time a new user accesses the system and at the request of the user thereafter, the system should provide an online tutorial to allow users to practice using the activities provided by the system to improve the patient's condition. | **UD-2:** |
| The system should provide a tutorial allowing users to practice ordering patient needs and supplies from the store.  The system should. | **UD-3:** |

## Assumptions and Dependencies

|  |  |
| --- | --- |
| Because the application runs 24/7, the user should be able to access the services all time without interruption. | **AS-1:** |
| The operation of the App system depends on the changes made in the payroll system, paypal system, and visa card system to accept payment requests for orders from the store that App provides to the use. | **DE-1:** |
| App's operation is dependent on the Store System being updated to reflect the availability of the requirements and materials it provides to patients. | **DE-2:** |
| This application relies on the ATEC test system to ask users questions about the patient to assess his improvement and update the test after a while, after which the report is developed. | **DE-3:** |

# System Features (Functional Requirements)

# 3.1 Users can create accounts

### 3.1.1 Description

### Users can create accounts and : The system shall check if the information that was entered by the user validates the required data ,high property.

### 3.1.2 Stimulus/Response Sequences

Stimulus: User requests to create a count .

Response: System displays a page with the information required to be entered and enter a unique id

Stimulus: The user, after entering the information, determines what he wants, is he a doctor, a guardian, or wants to buy from the purchases page?

Response: The system responds according to the choice if it is a doctor who has a special code that was previously provided in order to be approved, but if he is a guardian, he is registered naturally.

Stimulus: User requests to save information.

Response: The system saves the information in database

Functional Requirements

### 3.1.3Functional Requirements

* System shall provide a list for users to login as a doctor , the patient's guardian
* System shall display a form for insert account information.
* System shall add a unique ID for the user.
* System shall add account information to the database.

## 3.2 user can login

### 3.2.1 Description

User can login: The user can log in to his account by entering his username and password (number of correct password attempts is 30) Also, the password can be changed by e-mail or his phone number. As for the new user.

High priority

### 3.2.2 Stimulus/Response Sequences

Stimulus: User requests to log in .

Response: System provide the user to enter the information and check user privileges

Stimulus: User change password

Response: System can provide user to change the password if forget it using email or phone number

### 3.2.3 Functional Requirements

* The page shall be contain a textbox to allow user to enter their

password and other textbox for id.

* System shall be contain a login button to allow the user to

confirm their login.

* System shall provide a button to help users if they forget their password.
* User can modify account
* System shall check user privileges.
* System shall retrieve the correct account information from the

database after login in the system.

* System shall provide a button to allow users to change their password or

change their information.

* System shall update existing account information.

**3.2.3.1 For user login as a The patient's guardian**

* system shall open a form to allow the user to register and provide information for patient by list of requirement data for example patients name, age, disease level ,type of blood, Are there genetic diseases?, other disease.
* system allows the user to pay by Visa Card for subscription and upon purchase system.
* shall open a page to allow the customer to buy the patient's supplies and anything he needs from the purchase page.

**3.3 Get Consulting from specialists**

**3.2.1 Description**

If the patient’s guardian needs to communicate with a specialized doctor, he can contact one of the doctors who were approved by the institution and were given a special code to enter the site as a doctor using chat or contact directly

Low priority

### 3.2.2 Stimulus/Response Sequences

Stimulus: The user chooses the doctor he wants to communicate with

Response: The system provides a list of doctors, and when choosing a particular doctor, information about him appears It leads the user to an external interface that enables him to pay for the consultation.

### 3.2.3 Functional Requirements

•The application contains an interface consisting of a list of specialists in treating autism patients,

•Each doctor has an account and a password that he enters when entering the system, in addition to some information about him so that people can see this information about the chosen doctor

•When parents need any consultation, they can enter the system, choose any doctor from the list, and pay the amount of the consultation through their credit card

• After that, the doctor becomes available to answer the questions of the patients’ families, and the doctor is contacted with ease and comfort and to get the answer completely

•We, as investors, take a percentage of the amount paid to doctors for the system

(\*\*For example, when the patient's mother needs any inquiries, she needs to enter the system by logging in to her account and with the password. After verifying both of them, she goes to an interface in the system that contains the list of doctors and based on the attached information about each doctor, she can choose the doctor she needs and then communicate with him and get what she wants Easily, quickly and without extra costs.)

# Quality Attributes

## Usability

## Ease of use: The interface will be designed in a way that is easy for the user to use

|  |
| --- |
| Possibility of maintenance: In our program, the code must be well organized usingprogramming standards. Using functions and comments so any programmer caneasily understand the code and keep or update the system without anydifficulties. |

## Performance

|  |  |
| --- | --- |
| PE-1: | The user can download the program on his new phone if he changes his phone and the system works in the same efficiency |
| PE-2: | All patient reports generated by the system must be fully downloadable in no more than 10 seconds over a 40 kbps modem connection. |
| PE-3: | Responses to queries shall take no longer than 7 seconds to load onto the screen after the user submits the query. |
| PE-4: | The system shall display confirmation messages to users within 4 seconds after the user submits information to the system. |
| PE-5: | The system shall accommodate 400 users during the peak usage time window of 8:00 A.M. to 10:00 A.M. local time, with an estimated average session duration of 8 minutes. |

#### 

## Security Requirements

|  |  |
| --- | --- |
| SE-1: | Users shall be logged into the**( Tyef**( App for all operations except viewing the product sale page |
| SE-2: | Security question answering**:** A security system for a Security question answering: A security system for a product may ask questions that only the user knows the answer to. This can help verify a user's identity when they log into an account. Examples of security question topics include the color of your first car or your mother's maiden name. |
| SE-3: | The system allows only doctors listed in the list of accredited doctors to respond to inquiries |
| SE-4: | The system requires users to create accounts to access applications that store information and display profiles. The security system usually grants access to accounts when users enter the correct username and password, and after a period of registration requires registration and payment to continue the service |

## Safety

All information has a backup copy.

## Software Quality Attributes

#### 

|  |  |
| --- | --- |
| Availability-1: | The frequency **) Tayf(** for users on the company’s intranet and for connected users is 99.9% for a period of 24 hours, and a medical consultation is between seven in the morning and seven in the evening. |
| Availability-2: | Requirements which specify that the delivered product must behave in a particular way e.g. execution speed, reliability |

## [Others as relevant]

<Create a separate section in the SRS for each additional product quality attribute to describe characteris

tics that will be important to either customers or developers. Possibilities include availability, efficiency, install ability, integrity, interoperability, modifiability, portability, reliability, reusability, robustness, scalability, and verifiability. Write these to be specific, quantitative, and verifiable. Clarify the relative priorities for various attributes, such as security over performance.>

Appendix A: Glossary

<Define any specialized terms that a reader needs to know to understand the SRS, including acronyms and abbreviations. Spell out each acronym and provide its definition. Consider building a reusable enterprise-level glossary that spans multiple projects and incorporating by reference any terms that pertain to this project.>

Appendix B: Analysis Models

<This optional section includes or points to pertinent analysis models such as data flow diagrams, feature trees, state-transition diagrams, or entity-relationship diagrams. You might prefer to insert certain models into the relevant sections of the specification instead of collecting them at the end.>