Egy Healthcare System

SRS

Introduced by: G16

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| --- | --- | --- | --- |
| **Name** | **Date** | **Reason For Changes** | **Version** |
| Team | 25/11/2018 | Initial Release | 0.1 |
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**Introduction**

**Executive Summary**

“Egy Healthcare System” provides medical services. It should help people identify their medical condition by typing their symptoms or searching for a doctor in the field. It can be used by patients, doctors, companies and schools. It can be linked to hospitals as well. “Egy Healthcare System” is a great place to get your medical treatment.

**Document Overview**

The purpose of the document is to collect and analyze all ideas that have come up to define the behavior of the system. We are focusing on how this product will be used in order to gain a better understanding of the project, outline concepts that may be developed later, and document ideas that are being considered, but may be discarded as the product develops. This document describes the project's target audience and its user interface, hardware and software requirements. It defines how our team and users see the product and its functionality.

In short, the purpose of this SRS document is to provide a detailed overview of our software’s functional and nonfunctional requirements.

**Abbreviations and Terminologies**

|  |  |
| --- | --- |
| **Abbreviation** | **Full Name** |
| CAM | Complementary and Alternative Medicine |
| HCC | Hierarchical Condition Category |
| ICU | Intensive Care Unit |
| MLBW | Moderately Low Birth Weight |
| RR | Relative Risk |
| RPG | Rehabilitation Patient Group |
| VLBW | Very Low Birth Weight |
| WHO | World health Organization |

|  |  |
| --- | --- |
| **Terminology** | **Definition** |
| Access | A patient's ability to obtain medical care. |
| Actual Use Effectiveness | The effectiveness of a product in real-life situations. |
| Admission | The act of placing an individual under treatment or observation in a medical center or hospital. |
| Aftercare | Services that are administered after hospitalization or rehabilitation that are individualized. |
| Behavioral Health Care | Treatment of mental health and/or substance abuse disorders. |
| Chronic Care | Long term care of individuals with long standing, persistent diseases or conditions. |
| Chronic Disease | Disease that persists over a long period of time (i.e., more than 30 days), is not curable, and/or recurs frequently. |
| Complication | A medical condition that arises during a course of treatment and is expected to increase the length of stay. |
| Consultation | A discussion with another health care professional when additional feedback is needed during diagnosis or treatment. |
| Diagnosis | The identification of a disease or condition through  examination. |
| Disability | Any medical condition that results in functional limitations that interfere with an individual's ability to perform his or her normal work and results in limitations in major life activities. |
| Emergicenter | A health care facility, for which the primary purpose is the provision of immediate, short-term medical care for urgent medical conditions. |
| Formulary | The panel of drugs chosen by a hospital or other health plan that is used to treat patients. |
| Health Risk Assessment | A set of questions designed to identify personal health risks and suggest lifestyle modifications to reduce risks. |
| ID Card | Identification cards are provided to all insureds for proper identification under their group health plan. ID card information helps providers verify patient eligibility for coverage. |
| Incentives | A mechanism utilized to motivate insureds to achieve the desired result. |
| Maintenance Medication | Medications that are prescribed for long-term treatment of chronic conditions, such as diabetes, high blood pressure or asthma. |
| Patient | The person under medical treatment. |
| Physical Therapy | Rehabilitation concerned with restoration of function and prevention of physical disability following disease, injury or loss of body part. |
| Physician Assistant (P.A.) | A health care professional certified to perform certain duties such as history taking, diagnosis, drawing blood samples, urinalysis and injections under the supervision of a physician. |
| Preventive Care | Health care emphasizing priorities for prevention, early detection, and early treatment of conditions, generally including routine physical examination, immunization, and well-person care. |
| Quality | Defined as a measure of the degree to which delivered health services meet established professional standards and judgments of value to the consumer. |
| Referral | The process of sending a patient from one practitioner to another for healthcare service. |
| Specialists | Providers whose practices are limited to treating a specific disease (e.g. oncologists), specific parts of the body (e.g., ear, nose and throat), a specific age group (e.g. pediatrics), or specific procedures (e.g. oral surgery) |

**References**

* <https://web.cs.dal.ca/~hawkey/3130/srs_template-ieee.doc>
* <http://www.computing.dcu.ie/~renaat/CA326/srs_template2.doc>
* <http://www.cse.chalmers.se/~feldt/courses/reqeng/examples/srs_example_2010_group2.pdf>
* <https://www.oasis-open.org/committees/download.php/14981/EDXLRqmtsSupplement101905.doc>
* <https://xbsoftware.com/free-srs-template/>
* <https://www.usamco.com/pdf/glossary.pdf>
* <https://www.ncbi.nlm.nih.gov/books/NBK436890/>
* <https://www.ahrq.gov/research/findings/final-reports/iomracereport/reldataapa.html>

**System Description**

**Introduction**

Egy healthcare system provides full medical and health care for the users. The system is divided into several modules: Admission module where the user sign up to create an account on our system, Searching module where the user can search to find a certain doctor, search for a certain department or find the right department to search for a doctor in by entering his symptoms, Appointments module where the user can book an appointment with a doctor and he can also create a schedule for his appointments so that reminders can be sent to notify him when an appointment is coming up, Medications schedules module where he can create schedules for his medicines -if he takes any- so he can be notified when it's time to take a certain medicine. The user should be able to create a medical profile/record on his account containing his medical history in details. Healthcare insights and tips are regularly sent to users to widen their knowledge about general health.

**Users**

-**Patients:**

They are our main users. They should be able to create accounts on

Our website to login their medical history. They are able to search for doctors and book appointments with them, search for departments or find the right department by entering their symptoms. There is also the option of creating schedules for their appointments and medicines. They can post questions in Ask the doctor column.

-**Doctors:**

They can log in to follow up with their patients. They will be able to answer the patients' questions through Ask the doctor column.

-**Third party users:**

They are users who are not signed up to our website. They only have the option

to search for doctors, departments or find a department by choosing their

symptoms.

**Modules**

-**Admission system:**

The users are able to sign up by filling forms or login to their already existing

accounts.

-**Patient record system:**

The users create profiles on their accounts, containing their full medical

history.

-**Search system:**

The users are able to find doctors either by: searching for a certain doctor by

his name or by profession and preferred area, choosing a department to search in it for a doctor or choosing their symptoms which directs them to the right department where they can find the right doctor for them.

-**Appointments system:**

The users can book appointments with doctors. They can create schedules

with their doctors' appointments to be notified when an appointment is

coming up.

-**Medications schedules system:**

The users can create schedules with their medications to notify them when

it's time to take a certain medicine.

-**Health insights:**

Health tips and insights are regularly sent to the users on their accounts to

Widen their knowledge on different health aspects.

**System Users**

For our system, there are two different types of users: patients and third-party users.

Because this is a healthcare system, our primary users are the patients. As to our studies, they will be expecting several services to be offered by the website. It should help people identify their medical condition by typing their symptoms, searching for doctors available in the field, or reaching out for a specific doctor. They don’t need do sign up to access these services, unless they want to have a view of their medications and doctor appointments.

Throughout the development of this website, we are collecting information for our doctor’s database to ensure we are choosing the best doctors. Nevertheless, this website will remain updated continuously after its launching.

Our third-party users could be companies or schools who would like to use this website for this website for fast medication or as a database for doctors. The users could also be website creators that would like to have a view of how a healthcare system website looks like and works.

**System Modules**

**Module Description**

Provide module description.

Use block or context diagram to illustrate external and sub-modules.

Use activity diagram, state machine diagram, data flow diagrams to illustrate module operations.

**System Functions**

**Modules Functions**

**Admission System Module**

**-Sign up Function:**

**Description**: Take form's information from the user to create an account.

**Inputs**: First name, Last name, Password, Email, Gender.

**Outputs**: User Account Page.

**Pre-conditions**: On clicking "sign up "button.

**Post-conditions**: Save Password.

**-Sign in Function:**

**Description**: Enable the user to log in to his existing account.

**Inputs**: Email, Password.

**Outputs**: User Account Page.

**Pre-conditions**: On clicking ''Already have an account" button.

**Post-conditions**: Save Password.

**Search System Module**

**-Search by area and profession**

**Description**: Enable the user to search for a doctor by providing the doctor's profession and desired area.

**Inputs**: Profession, area.

**Outputs**: result containing the doctors that have the profession and area entered by the user.

**Pre-conditions**: Click "search" button.

**Post-conditions**: Showing the results.

**-Search by Name**

**Description**: Enable the user to search for a doctor by providing the doctor's name.

**Inputs**: Doctor's name.

**Outputs**: result containing the doctors that share the name that the user has entered.

**Pre-conditions**: Click "search" button.

**Post-conditions**: Showing the results.

**-Search by Department**

**Description**: Enable the user to search for a department by choosing its name.

**Inputs**: Department's name.

**Outputs**: result containing the doctors in this department.

**Pre-conditions**: Click "search" button.

**Post-conditions**: Showing the results.

**-Search by Symptoms**

**Description**: Enable the user to find the right doctor according to his symptoms.

**Inputs**: Symptoms.

**Outputs**: result containing the right department to search in for a doctor.

**Pre-conditions**: choose a symptom.

**Post-conditions**: Showing the results.

**Medications Schedules System Module**

**-Medicine Schedule Function**

**Description**: Create a medicine schedule for the user.

**Inputs**: Medicine's name, Time of each medicine.

**Outputs**: Table containing the medicines' name and its timing.

**Pre-conditions**: On clicking "create schedule" button.

**Post-conditions**: Showing the schedule.

**Appointments System Module**

**-Booking an appointment Function**

**Description**: Allows the user to book an appointment with the doctor.

**Inputs**: Time of the appointment.

**Outputs**: Telling the user whether he successfully booked the appointment or not.

**Pre-conditions**: On clicking "book an appointment" button.

**Post-conditions**: An alert telling the user whether he successfully booked the appointment or not.

**-Appointments Schedule Function**

**Description**: Create an Appointments schedule for the user.

**Inputs**: Time of the appointment, the doctor's name.

**Outputs**: Table containing the appointments.

**Pre-conditions**: On clicking "create schedule" button.

**Post-conditions**: Showing the schedule.

**Patients record System Module**

**-Medical Profile Function**

**Description**: Allows the user to record his medical history.

**Inputs**: User's medical history.

**Outputs**: Organized profile of the user's medical history.

**Pre-conditions**: On clicking "create medical profile" button.

**Post-conditions**: An alert telling the user whether he created the profile or not.

**Health insights Module**

**-Health insights Function**

**Description**: Sends the user regular insights about health.

**Inputs**: None.

**Outputs**: Regular insights sent to the user.

**Pre-conditions**: On clicking "Allow health insights" button.

**Post-conditions**: An alert with the insights

**System Models**

<Make only mandatory diagram to illustrate overall system interaction or to explain complex scenarios>

**Use Case Diagrams**

**Use Case Diagram**

Show use case diagram.

Provide brief explanation of the diagram.

**Use Case Diagram**

Show use case diagram.

Provide brief explanation of the diagram.

**Sequence Diagrams**

**Sequence Diagram**

Show sequence diagram.

Provide brief explanation of the diagram.

**Sequence Diagram**

Show sequence diagram.

Provide brief explanation of the diagram.

**Non-Functional Requirements**

**[NFR\_X] <Security> Requirements**

**[NFR\_X\_Y] <Security> Requirement**

Non functional requirement description.

**[NFR\_X] <Usability> Requirements**

**[NFR\_X\_Y] <Usability> Requirement**

Non functional requirement description.

**[NFR\_X] <Performance> Requirements**

**[NFR\_X\_Y] <Performance> Requirement**

Non functional requirement description.

**[NFR\_X] <Technology> Requirements [NFR\_X] <Development> Requirements [NFR\_X] <Delivery> Requirements [NFR\_X] <Operation> Requirements**

**Domain Requirements**

**[DR\_X] <Domain> Requirements**

**[DR\_X\_Y] <domain> Requirement**

Explain <domain> requirement or constrain.

**[DR\_X] <Domain> Requirements**

**[DR\_X\_Y] <domain> Requirement**

Explain <domain> requirement or constrain.

**[DR\_X] <Domain> Requirements**

**[DR\_X\_Y] <domain> Requirement**

Explain <domain> requirement or constrain.

**System Interfaces**

**User Interfaces**

The UI should be easy to manipulate without additional training. The user should be able to interact with the system in any of the languages available in the language menu. The pages should use a ZUI graphical environment, should be built with a good sense of color and contrast, and should be printable, using keys. All pages of the system should be accessible from any page.

**Communication Interfaces**

Our Egy Healthcare system supports all web browsers. It shall use the HTTP protocol for communication over the internet.

**Hardware Interfaces**

All server-side components must execute on server-class computers. All client-side components must execute on workstation-class and personal-class computers.

**Software Interfaces**

Our website can run on several operating system such as Windows (XP, 7, 8, 8.1) or Mac OSX (Tiger, Leopard, Snow Leopard, Lion, Yosemite).

It will work on several web browsers as well such as Google Chrome, Internet Explorer (ver. 8 or later), Mozilla Firefox and Safari.