Project Eir

Software Requirements Specification

Version 1.0

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Rami Alsibai

Leonardo Serrano

Clayton Damon

Keith Bragg

Taylor Pedretti

Development Team

Prepared for

Revision History

Date	Description	Author	Comments
02.19.2020	Version 1.0	Team Pantheon	Rough Draft of SRS Document

Document Approval

The following Software Requirements Specification has been accepted and approved by the following:

Signature	Printed Name	Title	Date
	<Your Name>		

Table of Contents

1. Introduction

The introduction to the Software Requirement Specification (SRS) document should provide an overview of the complete SRS document. While writing this document please remember that this document should contain all of the information needed by a software engineer to adequately design and implement the software product described by the requirements listed in this document. (Note: the following subsection annotates are largely taken from the IEEE Guide to SRS).

1.1 Purpose

Project Eir seeks to allow users to easily view the price of procedures to ensure they can obtain the lowest price. Our target audience is anyone who needs a medical procedure especially those without insurance.(Keith Bragg)

1.2 Scope

The scope for this project is to create a free website that will allow people to get the best bang for their buck when visiting the hospital. These days a lot of people don't have insurance and have to pay out of pocket or they have insurance and have high deductibles. Project Eir will show them the average cost of their specific medical procedure at local hospitals to help them keep some money in their pocket. This product will of course not do the medical procedure for them or book an appointment for them, it will just show you the average cost from the hospitals yearly report of costs. (Rami Alsibai)

1.3 Definitions, Acronyms, and Abbreviations

Project Eir strives to provide the most user friendly experience, our program searches through difficult medical definitions to best match your medical related search.

Eir- In Norse mythology, Eir is the goddess associated with healing.

Pantheon- a group of particularly respected, famous, or important people.

(Clayton Damon)

1.4 References

This subsection should:

(1) Provide a complete list of all documents referenced elsewhere in the SRS, or in a separate, specified document.

(2) Identify each document by title, report number - if applicable - date, and publishing organization.

(3) Specify the sources from which the references can be obtained.

This information may be provided by reference to an appendix or to another document.

1.5 Overview

The rest of the SRS document will include all of our UML diagrams/flowchart, our progress with each sprint, and explanations for paths we took along the way.(Rami Alsibai)

2. General Description

This section of the SRS should describe the general factors that affect 'the product and its requirements. It should be made clear that this section does not state specific requirements; it only makes those requirements easier to understand.

Our software is easily used, needing only an internet connection and web browser. We also require data from hospitals but since a recent law change requires hospitals to display this information, making it much easier. (Keith Bragg)

2.1 Product Perspective

Similar products online do exist but they are convoluted and hard to use. Healthcare Bluebook is a similar product but requires an access code to use and Fair Health requires an extensive survey and sensitive information. Project Eir however is a free service and does not require an access code. Project Eir is the only service of its kind that is dedicated to the fast and friendly support when searching for a medical procedure.(Clayton Damon)

2.2 Product Functions

Project Eir includes many functions that are easy to use and navigate.

*Sign up or Sign in buttons allow users to create an account or log in using an existing account.

*Search Bar will allow users to compare prices of medical procedures.

*Safely stores passwords in our database to protect user information.

*Customer support page that provides users with dedicated help all hours of the day.

(Clayton Damon)

2.3 User Characteristics

The characteristics of our target users is anyone who needs an operation or would simply like to compare prices for a future procedure. The team at Project Eir understands that many of our users may be over the age of 50, and may have limitations in their technical ability, this affects the visual aspect of our program and as such we have made an easy to use interface with a large search bar and button to accommodate these users. (Clayton Damon)

2.4 General Constraints

For this Project the biggest constraint is time, there's only so much you can do in such a short development time, because of the time constraint we had to make changes to our database and use a smaller procedure list and filter out any medical names that were too vague and hard to implement in our search algorithm. (Clayton Damon)

2.5 Assumptions and Dependencies

It is assumed that the user is familiar with an internet browser and also familiar with handling the keyboard and mouse. Since the application is a web based application there is a need for the internet browser. It will be assumed that the users will possess decent internet connectivity. (Clayton Damon)

3. Specific Requirements

This will be the largest and most important section of the SRS. The customer requirements will be embodied within Section 2, but this section will give the D-requirements that are used to guide the project's software design, implementation, and testing.

1. Database
2. Server
3. Hospital Data
4. Log-in and log-out system
5. Search bar that queries the database
6. A system to allow general search terms to show results

   (Keith Bragg)

Attention should be paid to carefully organize the requirements presented in this section so that they may easily accessed and understood. Furthermore, this SRS is not the software design document, therefore one should avoid the tendency to over-constrain (and therefore design) the software project within this SRS.

3.1 External Interface Requirements

3.1.1 User Interfaces

3.1.2 Hardware Interfaces

3.1.3 Software Interfaces

3.1.4 Communications Interfaces

3.2 Functional Requirements

This section describes specific features of the software project. If desired, some requirements may be specified in the use-case format and listed in the Use Cases Section.

3.2.1 <Functional Requirement or Feature #1>

3.2.1.1 Introduction

3.2.1.2 Inputs

3.2.1.3 Processing

3.2.1.4 Outputs

3.2.1.5 Error Handling

3.2.2 <Functional Requirement or Feature #2>

…

3.3 Use Cases

3.3.1 Use Case #1

3.3.2 Use Case #2

…

3.4 Classes / Objects

3.4.1 <Class / Object #1>

3.4.1.1 Attributes

3.4.1.2 Functions

<Reference to functional requirements and/or use cases>

3.4.2 <Class / Object #2>

…

3.5 Non-Functional Requirements

Non-functional requirements may exist for the following attributes. Often these requirements must be achieved at a system-wide level rather than at a unit level. State the requirements in the following sections in measurable terms (e.g., 95% of transaction shall be processed in less than a second, system downtime may not exceed 1 minute per day, > 30 day MTBF value, etc).

3.5.1 Performance

3.5.2 Reliability

3.5.3 Availability

3.5.4 Security

3.5.5 Maintainability

3.5.6 Portability

3.6 Inverse Requirements

State any *useful* inverse requirements.

3.7 Design Constraints

Specify design constrains imposed by other standards, company policies, hardware limitation, etc. that will impact this software project.

3.8 Logical Database Requirements

Will a database be used? If so, what logical requirements exist for data formats, storage capabilities, data retention, data integrity, etc.

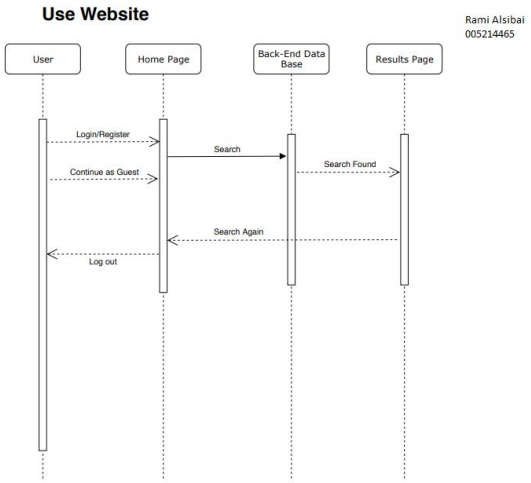
3.9 Other Requirements

Catchall section for any additional requirements.

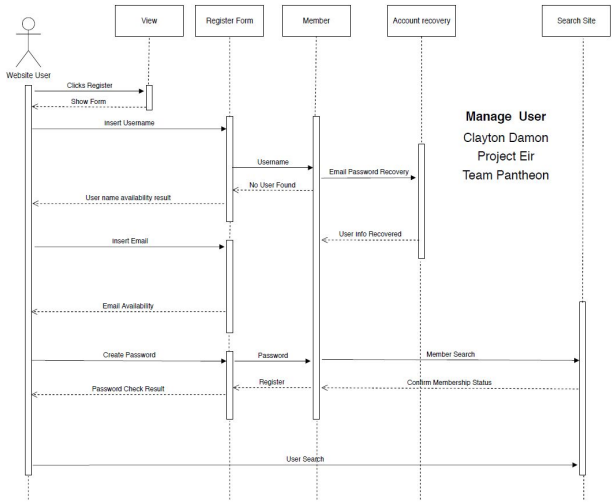
4. Analysis Models

List all analysis models used in developing specific requirements previously given in this SRS. Each model should include an introduction and a narrative description. Furthermore, each model should be traceable the SRS's requirements.

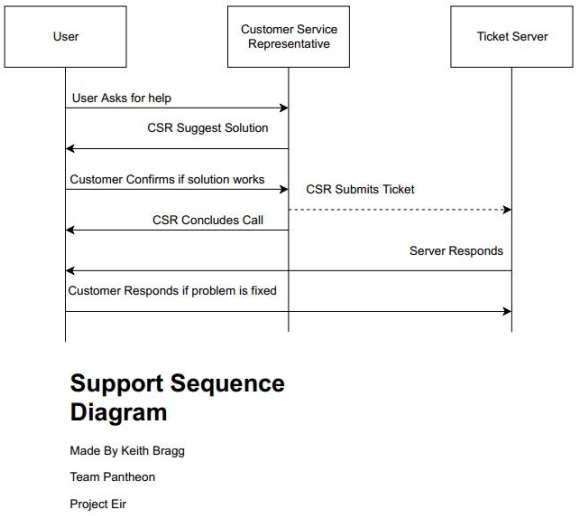
4.1 Sequence Diagram(s)

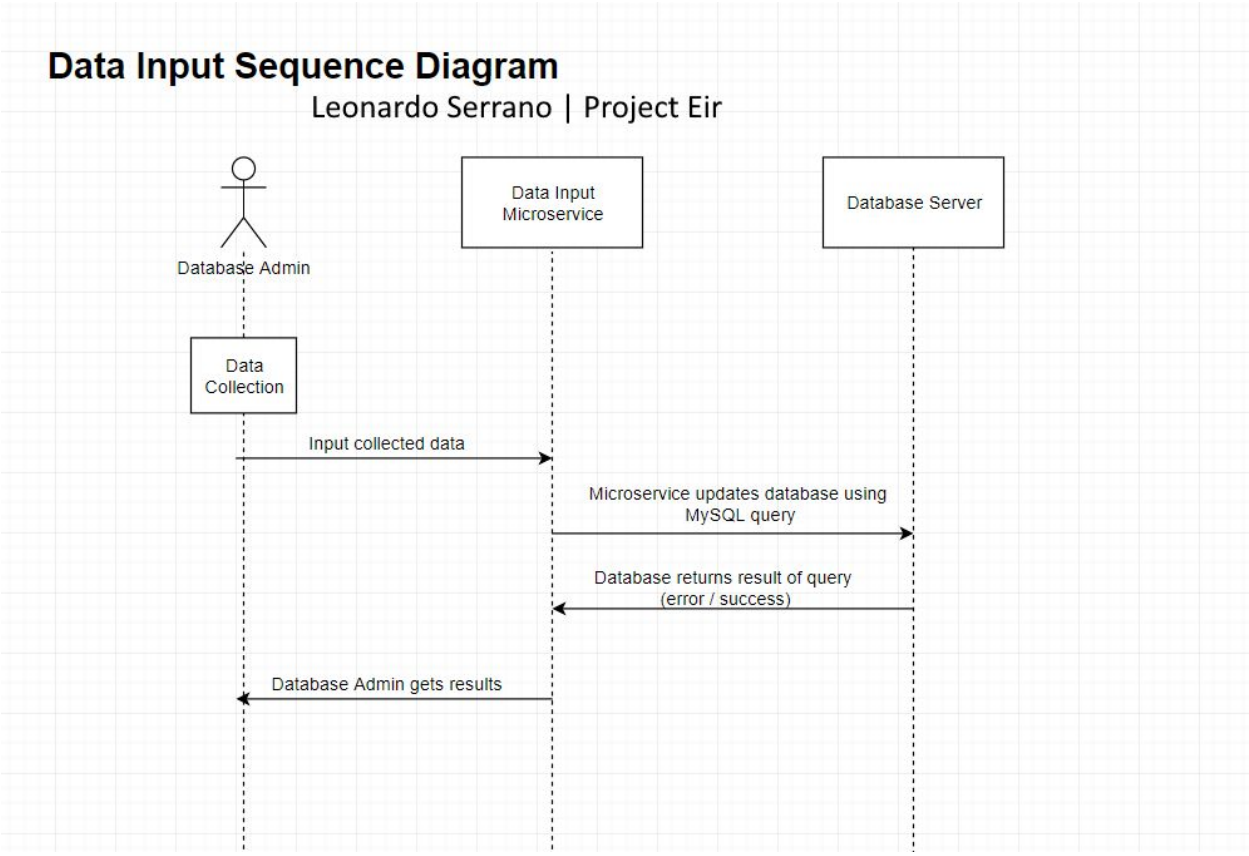


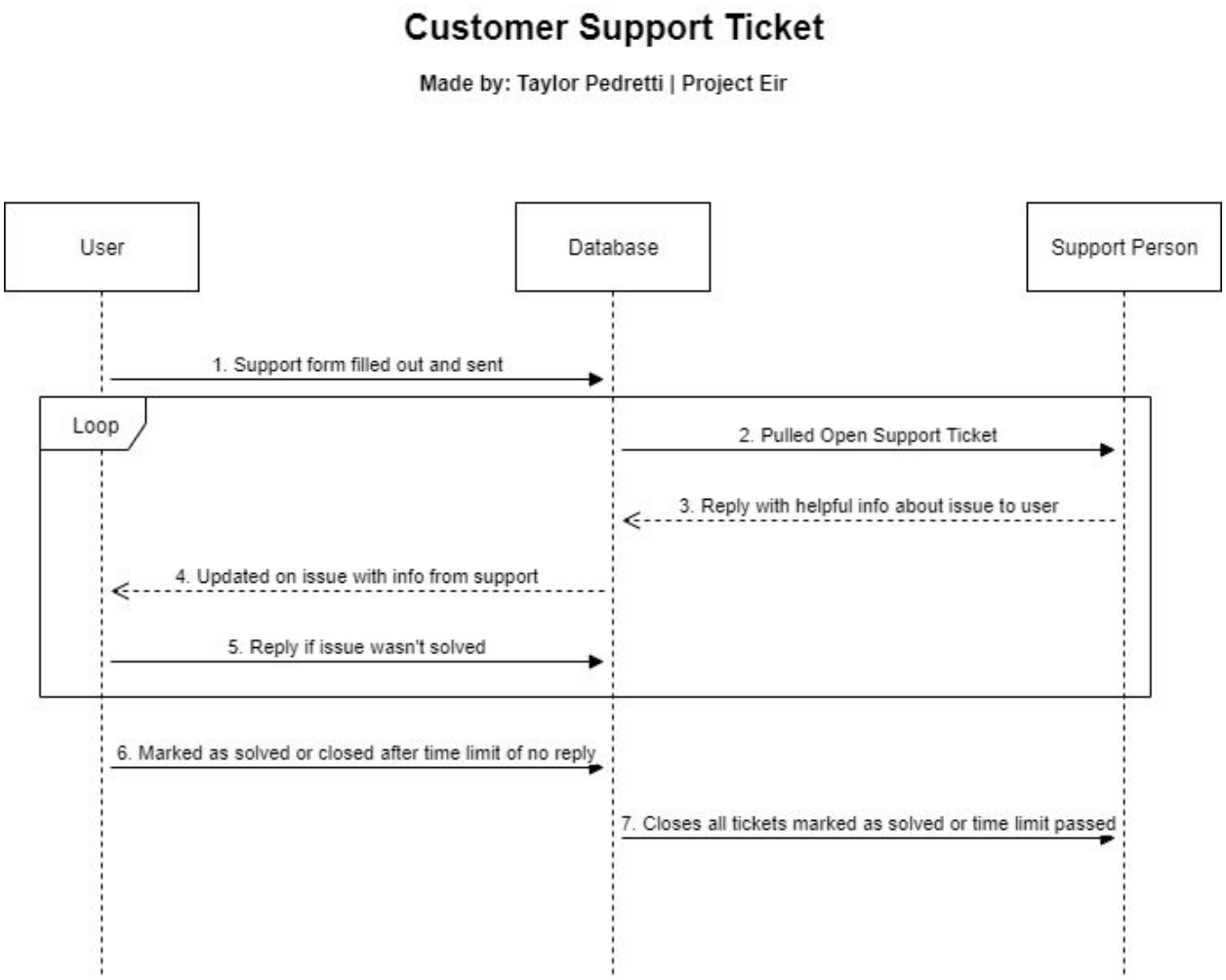
In my current sequence diagram I have the basic structure of the website and its function. The user can go through each page and will be given a new GUI with each page. I plan to add more as we get further into the project to meet the goals of the website. -Rami Alsibai



After looking back on my sequence diagram everything is still within my scope, and I will continue to work on managing the users. Sign up works and save the users information to the database, the password is hashed to protect their information in our database.




Data Input Sequence Diagram
Leonardo Serrano | Project Eir
Database Admin
Data Input Microservice
Database Server
Data Collection
Input collected data
Microservice updates database using MySQL query
Database returns result of query (error / success)
Database Admin gets results



Support Ticket System Sequence showing the steps the user and support person have to take to get an issue solved. - Taylor Pedretti

4.3 Use Case Diagram(s)

4.2 Class Diagram(s)

5. Change Management Process

Identify and describe the process that will be used to update the SRS, as needed, when project scope or requirements change. Who can submit changes and by what means, and how will these changes be approved.

A. Appendices

Appendices may be used to provide additional (and hopefully helpful) information. If present, the SRS should explicitly state whether the information contained within an appendix is to be considered as a part of the SRS's overall set of requirements.

Example Appendices could include (initial) conceptual documents for the software project, marketing materials, minutes of meetings with the customer(s), etc.

A.1 Appendix 1

A.2 Appendix 2