Faculty of Engineering URSource Functional Requirements Document

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GitHub URL: https://github.com/TheGreatValue/The-First-Milestone

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CONTENT

INTRODUCTION

The goal of this project is to improve the efficiency of the Engineering Department by making a better website. They communicated that it is hard to find folders and access intranet in order to access and get information in and out. The naming of some folders is similar, which makes it difficult for people to find some folders and it ends up being multiple folders of similar names. This document explains the planning phase of the project and the goals we plan to achieve and will also serve as a logbook. In order to complete this project, we organize meetings, discuss ideas and document them to keep track of our progress.

1.1 Purpose

The purpose of this organization is to design an internal website for the staffs in Engineering Faculty. The website will have new features that would potentially increase the efficiency of the staff members. Features such as an effective search engine and filename sorting. Furthermore, the website will also have a security feature in files that are high in confidentiality.

1.2 Scope

The scope of this document is to provide an overview of the planning phase of the project and to provide ideas on how the Engineering Department can be improved, through a website that is intuitive, efficient, simple, and bug-free.

1.3 Background

The Great Value is composed of five Software Engineering students, interested in the improvement of software tools used in the engineering department at the University of Regina. Our responsibility is to fulfill the needs of our client, taking into account the constraints that our abilities impose. We are constantly reviewing the informed needs of our client and reviewing our past work to ensure the outstanding quality of our work with the correct function to develop.

1.4 References

Our group came together several times, in our first meeting (09/21/18) we talked about techniques we were going to use to complete this project. Furthermore, we set up a PowerPoint that we will use to present our ideas in the class. In our second meeting (09/25/18), we set up the first draft of our presentation and finally in our third meeting (09/25/18) we finalized our presentation and practiced it.

1.5 Assumptions and Constraints

1.5.1 Assumptions

The Engineering Department needs a secure, yet simple website with easy navigation. In addition data privacy is important and confidential to be taken care off which must follow the federal privacy act (FPA).

1.5.2 Constraints

One of the biggest constraint in this project is that we are limited in what we ca do in the website. For instance, in the cascade software the header and footer are fixed, hence we cannot change the design. The search bar is currently placed in the footer, which in our opinion is in a bad spot. The search bar would be better in the header so that it can be easily seen by the users. Another constraint we have is the perspective of the actual users. It would be helpful if we can try the current website of the staff members.

1.6 Document Overview

This document will display the necessary documents in order to attain a successful project.
These document will be divided into six sections. In introduction, section 1, this will provide an overview of the system and some additional information to place the system in context. In section 2, this will describe the overall approach used in the determination of the FRD contents. Furthermore, it will describe the modeling methods so non-technical readers can understand what they are conveying. Third section is user requirements, this will provide the type of security or other distinguishing characteristics of each set of users. Fourth section is functional requirements, this will display the functional requirements of the system derived from users requirements. The last two sections are interface requirements and operational requirements. Interface describe the user interface and operational will display Security and Privacy.

2 METHODOLOGY

To start this project we met with the principal stakeholders. They expressed their needs about the web page of the engineering department and their expectations about us. From this, we develop an empathy map, a tool to better understand the information we get from the meeting, where we define the keywords that they mention and their thoughts and feelings about the actual web page. Finally, we define the Functional Requirements for the users and for the web page.

3 FUNCTIONAL REQUIREMENTS

3.1 User Requirements

Basic user requirements includes, upload and edit files with ease, keep the user information secure so that only the people authorized can access the information. File organization was the main objective as the files were not to be duplicated and naming, numbering them had to be readable.

3.2 FUNCTIONAL REQUIREMENTS

3.2.1 Functional Requirements engineering web page

Name	Definition
FR1- Upload/edit files	Upload documents without generating duplicates, and without needing help from technical support.
FR2 - Intuitive	Intuitive flow on the web page
FR3 - Secure access	Accessibility-based on the level of the user, following the Federal Privacy Act.
FR4 - Simplicity and efficiency	Each user requires easy access to their files

3.2.2 Functional Requirements Administrative

Name	Definition
FR1- Privacy	Accessibility-based on the level of the user to web pages
FR2 - Upload/edit files	Upload documents without generating duplicates, and without needing help from technical support.

4 OTHER REQUIREMENTS

Some non-behavioral requirements of the website would be a faster response time, high level of security, maintainable, reliable, serviceable, and data integrity.

4.1 Interface Requirements

4.1.1 Hardware Interfaces

Connection between several computers using the LAN or Wireless. The software should be compatible with all sorts of devices.

4.1.2 Software Interfaces

File formats like mp3, jpeg, jpg etc. should be uploadable by the user Upload new documents and make updates when necessary. We will be using Cascade Server to make our website interface. Using basic HTML and CSS.

4.2 Operational Requirements

This section documents the operational requirements of the system.

4.2.1 Security and Privacy

A. State the consequences of the following breaches of security in the subject application:
    a. Loss or corruption of data: There are time constraints in every project and losing data will affect the efficiency of the work done. Recovering lost or corrupted data is also costly.
    b. Disclosure of secrets or sensitive information: This is a violation of the user's privacy which may lead to the legal actions being taken against the university. This creates a bad reputation for the university.
    c. Disclosure of privileged/privacy information about individuals: Private information may be used in bad activities like fraud and this can result in legal problems.
    d. Corruption of software or introduction of malware, such as viruses: This could slow or shut down the server. Files could be damage and leaks may occur.

B. State the type(s) of security required. Include the need for the following as appropriate:
    a. Physical security: Not applicable to the project.
    b. Access by user role or types: Access is dependent on user role and on a need to know basis, to keep data secure
    c. State access control requirements by data attribute: Only certain users will need access to read and write, while others only have access to see the document but can't edit.

d. State access requirements based on system function. There is a need to grant access to certain system functions to one group of users, but not to another. Reduces unnecessary information being shared.
e. Certification and accreditation: Access should be restricted if the faculty member isn't certified for the section.