Development of Web Portal  
For

Patent Records

Software Requirements Specification

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# 1. Introduction

This document is a Software Requirement Specification (SRS) for the **Web Portal for Patent Records**. This is the initial draft for the SRS and it will be used for the extensions.

The aim of this project is to extract the information from Patents records which are in PDF format and then write the same in a .xlsx format file and in a SQL database. Under this project

we will build a web portal which will allow to search for data in the SQL database using various filters and download the information in a excel file format.

## 1.1 Purpose

The purpose of this document is to specify complete description about out project. Through this document, the workload needed for development, validation and verification will ease. To be specific, this document is going to describe functionality, external interfaces, performance, attributes and the design constraints of the system which is going to be developed. Therefore, intended reader groups for this software requirement specification are client and users.

## 1.2 Scope

The project is intended to :

*(1)* Reduce the efforts of searching information in patent records.

*(2)* Provide patent record information in excel format for further uses.

*(3)*  Provide a user-friendly web-portal for searching and downloading required information.

## 1.3 Overview

We are going to focus on describing our project in terms of project perspective, project features, user characteristics and dependencies on the following section of this document. Next, we will address specific requirements of the project, which will enclose requirements of the system, performance requirements, and other requirements.

# 2. General Description

This section gives background information about specific requirements of our project to be developed in brief. Although we will not describe every requirement in detail, this section will describe the factors that affect the final product.

## 2.1 Product Perspective

This software product is eventually intended for the research work. Product will be deployed to web site and all users of the product will access by use of the website. Website will be main user interface where users can operate all the provided functionality. However, this web site will be only a part of our project. The main conversion and extraction will be done offline on the main system for building up the database. Website will only be the interface for the user data and the execution of provided functionalities.

## 2.2 Product Functions

This new product, web based integrated development environment, must have number of features which will allow users to use functionalities which have been explained above. Required functionalities of the product can be summarized in five categories; user management requirements, code editor requirements, debugger requirements, command line interface requirements and interface requirements. Overall description of the requirements can be found below.

## 2.3 User Characteristics

This subsection of the SRS should describe those general characteristics of the eventual users of the product that will affect the specific requirements. (See the IEEE Guide to SRS for more details).

## 2.4 General Constraints

*This subsection of the SRS should provide a general description of any other items that will*

*limit the developer’s options for designing the system. (See the IEEE Guide to SRS for a partial list of possible general constraints).*

## 2.5 Assumptions and Dependencies

This subsection of the SRS should list each of the factors that affect the requirements stated in the SRS. These factors are not design constraints on the software but are, rather, any changes to them that can affect the requirements in the SRS. For example, an assumption might be that a specific operating system will be available on the hardware designated for the software product. If, in fact, the operating system is not available, the SRS would then have to change accordingly.

# 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.

Each requirement in this section should be:

* Correct
* Traceable (both forward and backward to prior/future artifacts)
* Unambiguous
* Verifiable (i.e., testable)
* Prioritized (with respect to importance and/or stability)
* Complete
* Consistent
* Uniquely identifiable (usually via numbering like 3.4.5.6)

Attention should be paid to the 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 Classes / Objects

### 3.3.1 <Class / Object #1>

3.3.1.1 Attributes

3.3.1.2 Functions

<Reference to functional requirements and/or use cases>

### 3.3.2 <Class / Object #2>

…

## 3.4 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).

### 3.4.1 Performance

### 3.4.2 Reliability

### 3.4.3 Availability

### 3.4.4 Security

### 3.4.5 Maintainability

### 3.4.6 Portability

## 3.5 Inverse Requirements

State any \*useful\* inverse requirements.

## 3.6 Design Constraints

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

## 3.7 Logical Database Requirements

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

## 3.8 Other Requirements

Catchall section for any additional requirements.

# 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