

SE 3XA3: Software Requirements  
Specification  
Save The Date

Karuka Khurana (khurak1)  
Utsharga Rozario (rozariou)  
Samarth Kumar (kumars38)  
Dhruv Cheemakurti (cheemakd)

February 10, 2022

# Contents

<b>1</b>	<b>Project Drivers</b>	<b>1</b>
1.1	The Purpose of the Project . . . . .	1
1.2	The Stakeholders . . . . .	1
1.2.1	The Client . . . . .	1
1.2.2	The Customers . . . . .	1
1.2.3	Other Stakeholders . . . . .	1
1.3	Mandated Constraints . . . . .	1
1.4	Naming Conventions and Terminology . . . . .	1
1.5	Relevant Facts and Assumptions . . . . .	1
<b>2</b>	<b>Functional Requirements</b>	<b>1</b>
2.1	The Scope of the Work and the Product . . . . .	1
2.1.1	The Context of the Work . . . . .	1
2.1.2	Work Partitioning . . . . .	1
2.1.3	Individual Product Use Cases . . . . .	1
2.2	Functional Requirements . . . . .	1
2.2.1	FR1 . . . . .	1
2.2.2	FR2 . . . . .	2
2.2.3	FR3 . . . . .	2
2.2.4	FR4 . . . . .	2
2.2.5	FR5 . . . . .	3
2.2.6	FR6 . . . . .	3
2.2.7	FR7 . . . . .	3
2.2.8	FR8 . . . . .	3
2.2.9	FR9 . . . . .	4
2.2.10	FR10 . . . . .	4
<b>3</b>	<b>Non-functional Requirements</b>	<b>4</b>
3.1	Look and Feel Requirements . . . . .	4
3.1.1	Appearance Requirements . . . . .	4
3.1.2	Style Requirements . . . . .	4
3.2	Usability and Humanity Requirements . . . . .	5
3.2.1	Ease of Use Requirements . . . . .	5
3.2.2	Learning Requirements . . . . .	5
3.2.3	Accessibility Requirements . . . . .	5
3.3	Performance Requirements . . . . .	5

3.3.1	Speed and Latency Requirements . . . . .	5
3.3.2	Safety-Critical Requirements . . . . .	5
3.3.3	Precision or Accuracy Requirements . . . . .	5
3.3.4	Reliability and Availability Requirements . . . . .	5
3.3.5	Robustness or Fault-Tolerance Requirements . . . . .	6
3.3.6	Capacity Requirements . . . . .	6
3.3.7	Scalability or Extensibility Requirements . . . . .	6
3.3.8	Longevity Requirements . . . . .	6
3.4	Operational and Environmental Requirements . . . . .	6
3.4.1	Expected Physical Environment . . . . .	6
3.5	Release Requirements . . . . .	6
3.6	Maintainability and Support Requirements . . . . .	6
3.6.1	Maintenance Requirements . . . . .	6
3.6.2	Supportability Requirements . . . . .	6
3.6.3	Adaptability Requirements . . . . .	7
3.7	Security Requirements . . . . .	7
3.8	Cultural Requirements . . . . .	7
3.8.1	Cultural Requirements . . . . .	7
3.9	Legal Requirements . . . . .	7
3.10	Health and Safety Requirements . . . . .	7
<b>4</b>	<b>Project Issues</b>	<b>8</b>
4.1	Open Issues . . . . .	8
4.2	Off-the-Shelf Solutions . . . . .	8
4.3	New Problems . . . . .	8
4.4	Tasks . . . . .	8
4.5	Migration to the New Product . . . . .	8
4.6	Risks . . . . .	8
4.7	Costs . . . . .	8
4.8	User Documentation and Training . . . . .	8
4.9	Waiting Room . . . . .	8
4.10	Ideas for Solutions . . . . .	8
<b>5</b>	<b>Appendix</b>	<b>9</b>
5.1	Symbolic Parameters . . . . .	9

## List of Tables

1	<a href="#">Revision History</a>	iii
---	----------------------------------	-----

## List of Figures

Table 1: **Revision History**

Date	Version	Notes
February 10	1.0	SRS was created

This document describes the requirements for .... The template for the Software Requirements Specification (SRS) is a subset of the Volere template (?). If you make further modifications to the template, you should explicitly state what modifications were made.

## **1 Project Drivers**

### **1.1 The Purpose of the Project**

### **1.2 The Stakeholders**

#### **1.2.1 The Client**

#### **1.2.2 The Customers**

#### **1.2.3 Other Stakeholders**

### **1.3 Mandated Constraints**

### **1.4 Naming Conventions and Terminology**

### **1.5 Relevant Facts and Assumptions**

User characteristics should go under assumptions.

## **2 Functional Requirements**

### **2.1 The Scope of the Work and the Product**

#### **2.1.1 The Context of the Work**

#### **2.1.2 Work Partitioning**

#### **2.1.3 Individual Product Use Cases**

### **2.2 Functional Requirements**

#### **2.2.1 FR1**

**Description:** The system shall provide the user with a button to begin scraping.

**Rationale:** The design must be intuitive to use, hence a visual interface for the user.

**Priority:** High

### 2.2.2 FR2

**Description:** The system shall have a way to select the page range they want to scrape.

**Rationale:** If the user knows the range in which the deadlines might exist in the document, the application can scrape over a specified page range, minimizing processing time.

**Priority:** High

### 2.2.3 FR3

**Description:** The system shall have a way to identify deadline tables in the PDF.

**Rationale:** It is crucial that the application properly identifies tables with deadlines in a PDF as a PDF might contain a lot of tables irrelevant to deadlines, i.e., tables containing names of professors and their office hours.

**Priority:** High

### 2.2.4 FR4

**Description:** The system shall have a way to structure the output table data.

**Rationale:** The data obtained from a PDF may not be in a table format when read. Hence, there needs to be a way to structure the data into a table before being output in a Notion page.

**Priority:** High

### 2.2.5 FR5

**Description:** The system shall have a way to create a Notion table in a page.

**Rationale:** The application must be able to automatically read the data from the PDF and make a page with the read table. Hence, the system must be able to create a Notion table once it has been given the data for the table.

**Priority:** High

### 2.2.6 FR6

**Description:** The system shall display the deadlines as a table in a Notion page.

**Rationale:** The application should be capable of reading the data and putting it into a Notion table. The table that should be displayed needs to be structured well, in the same if not a better format than that in the PDF.

**Priority:** High

### 2.2.7 FR7

**Description:** The system shall make the table editable.

**Rationale:** The user might think of changing the deadline in a table, for example, if the due date has been changed by the course instructor. Hence, it is crucial that the table created by the application is editable.

**Priority:** High

### 2.2.8 FR8

**Description:** The system shall ask the user to input the course name/code for the table.

**Rationale:** Since the name of the course might not be explicitly listed in a PDF, i.e. a PDF with only deadlines or a shared course having several

course codes. We required the user to input the course code to include a tag and title with the table.

**Priority:** High

#### **2.2.9 FR9**

**Description:** The system shall create a new page when the scraper is used for the first time.

**Rationale:** The idea is to have all the deadlines listed in an easy to access page. Hence a central page for all course deadlines.

**Priority:** High

#### **2.2.10 FR10**

**Description:** The system shall allow the user to scrape multiple PDFs into one page.

**Rationale:** To increase functionality of our application, the user must be able to insert multiple deadlines from different PDFs into the same page.

**Priority:** High

## **3 Non-functional Requirements**

### **3.1 Look and Feel Requirements**

#### **3.1.1 Appearance Requirements**

LF1. The application shall be consistent with the Notion theme.

#### **3.1.2 Style Requirements**

LF2. The application shall be consistent with the Notion theme.



## **3.2 Usability and Humanity Requirements**

### **3.2.1 Ease of Use Requirements**

UH1. The application must be accessible to the users in an easy-to-access menu.

### **3.2.2 Learning Requirements**

UH2. The users should be able to use the application without prior experience or training.

### **3.2.3 Accessibility Requirements**

UH3. The application must adhere to the same accessibility range as the Notion application.

## **3.3 Performance Requirements**

### **3.3.1 Speed and Latency Requirements**

PE1. The application shall be able to scrape a PDF within a reasonable time.

PE2. The application shall be able to make a Notion page within a reasonable time.

### **3.3.2 Safety-Critical Requirements**

N/A

### **3.3.3 Precision or Accuracy Requirements**

PE3. The application shall be able to identify tables with deadlines with an 85% accuracy.

PE4. The application shall be able to recreate tables with 90% accuracy.

### **3.3.4 Reliability and Availability Requirements**

N/A

### **3.3.5 Robustness or Fault-Tolerance Requirements**

N/A

### **3.3.6 Capacity Requirements**

N/A

### **3.3.7 Scalability or Extensibility Requirements**

N/A

### **3.3.8 Longevity Requirements**

PE5. The application must be functional with existing software and hardware by May 2022.

## **3.4 Operational and Environmental Requirements**

### **3.4.1 Expected Physical Environment**

OE1. The system must not require an Internet connection to function correctly.

## **3.5 Release Requirements**

RR1. The product will have a final release on April 10th, 2022.

## **3.6 Maintainability and Support Requirements**

### **3.6.1 Maintenance Requirements**

MA1. The source code must be fully documented, via commenting and class diagrams.

MA2. The source code must all adhere to the same standard style.

### **3.6.2 Supportability Requirements**

MA3. The project's main repository shall be made public, to allow users to raise issues.

### **3.6.3 Adaptability Requirements**

- MA4. The application shall be supported by any machine running Windows 7 or newer, macOS Sierra 10.12 or newer, or Linux Ubuntu 16.04 or newer.
- MA5. The application shall be supported by Chrome 98.0.X, FireFox 97.0 and Microsoft Edge 97.0.X.

## **3.7 Security Requirements**

N/A

## **3.8 Cultural Requirements**

### **3.8.1 Cultural Requirements**

- CR1. The system shall not allow users to input course names that are culturally offensive/inappropriate.
- CR2. The system shall not allow users to input course names that are in languages besides from English.

## **3.9 Legal Requirements**

N/A

## **3.10 Health and Safety Requirements**

N/A

## 4 Project Issues

### 4.1 Open Issues

### 4.2 Off-the-Shelf Solutions

### 4.3 New Problems

### 4.4 Tasks

### 4.5 Migration to the New Product

### 4.6 Risks

### 4.7 Costs

### 4.8 User Documentation and Training

### 4.9 Waiting Room

### 4.10 Ideas for Solutions

## **5 Appendix**

This section has been added to the Volere template. This is where you can place additional information.

### **5.1 Symbolic Parameters**

The definition of the requirements will likely call for SYMBOLIC\_CONSTANTS. Their values are defined in this section for easy maintenance.