Software Requirements Specification for Software Engineering: Document Management System

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Contents

1 Purpose of the Project **vi**
- 1.1 User Business . . . vi
- 1.2 Goals of the Project . . . vi

2 Stakeholders **vi**
- 2.1 Client . . . vi
- 2.2 Customer . . . vi
- 2.3 Other Stakeholders . . . vi
- 2.4 Hands-On Users of the Project . . . vi
- 2.5 Personas . . . vi
- 2.6 Priorities Assigned to Users . . . vi
- 2.7 User Participation . . . vii
- 2.8 Maintenance Users and Service Technicians . . . vii

3 Mandated Constraints **vii**
- 3.1 Solution Constraints . . . vii
- 3.2 Implementation Environment of the Current System . . . vii
- 3.3 Partner or Collaborative Applications . . . vii
- 3.4 Off-the-Shelf Software . . . vii
- 3.5 Anticipated Workplace Environment . . . viii
- 3.6 Schedule Constraints . . . viii
- 3.7 Budget Constraints . . . viii
- 3.8 Enterprise Constraints . . . viii

4 Naming Conventions and Terminology **viii**
- 4.1 Glossary of All Terms, Including Acronyms, Used by Stakeholders involved in the Project . . . viii

5 Relevant Facts And Assumptions **viii**
- 5.1 Relevant Facts . . . viii
- 5.2 Business Rules . . . viii
- 5.3 Assumptions . . . viii

6 The Scope of the Work **ix**
- 6.1 The Current Situation . . . ix
- 6.2 The Context of the Work . . . ix
- 6.3 Work Partitioning . . . ix

6.4 Specifying a Business Use Case (BUC) ix

7 Business Data Model and Data Dictionary **ix**
7.1 Business Data Model ix
7.2 Data Dictionary ix

8 The Scope of the Product **ix**
8.1 Product Boundary ix
8.2 Product Use Case Table ix
8.3 Individual Product Use Cases (PUC's) x

9 Functional Requirements **x**
9.1 Functional Requirements x

10 Look and Feel Requirements **x**
10.1 Appearance Requirements x
10.2 Style Requirements x

11 Usability and Humanity Requirements **x**
11.1 Ease of Use Requirements x
11.2 Personalization and Internationalization Requirements x
11.3 Learning Requirements x
11.4 Understandability and Politeness Requirements xi
11.5 Accessibility Requirements xi

12 Performance Requirements **xi**
12.1 Speed and Latency Requirements xi
12.2 Safety-Critical Requirements xi
12.3 Precision or Accuracy Requirements xi
12.4 Robustness or Fault-Tolerance Requirements xi
12.5 Capacity Requirements xi
12.6 Scalability or Extensibility Requirements xi
12.7 Longevity Requirements xi

13 Operational and Environmental Requirements **xii**
13.1 Expected Physical Environment xii
13.2 Wider Environment Requirements xii
13.3 Requirements for Interfacing with Adjacent Systems xii
13.4 Productization Requirements xii

13.5 Release Requirements xii

14 Maintainability and Support Requirements **xii**
14.1 Maintenance Requirements xii
14.2 Supportability Requirements xiii
14.3 Adaptability Requirements xiii

15 Security Requirements **xiii**
15.1 Access Requirements xiii
15.2 Integrity Requirements xiv
15.3 Privacy Requirements xiv
15.4 Audit Requirements xiv
15.5 Immunity Requirements xiv

16 Cultural Requirements **xiv**
16.1 Cultural Requirements xiv

17 Compliance Requirements **xiv**
17.1 Legal Requirements xiv
17.2 Standards Compliance Requirements xiv

18 Open Issues **xiv**

19 Off-the-Shelf Solutions **xv**
19.1 Ready-Made Products xv
19.2 Reusable Components xv
19.3 Products That Can Be Copied xv

20 New Problems **xv**
20.1 Effects on the Current Environment xv
20.2 Effects on the Installed Systems xv
20.3 Potential User Problems xv
20.4 Limitations in the Anticipated Implementation Environment That May Inhibit the New Product xvi
20.5 Follow-Up Problems xvi

21 Tasks **xvi**
21.1 Project Planning xvi
21.2 Planning of the Development Phases xvi

22 Migration to the New Product **xvi**
22.1 Requirements for Migration to the New Product xvi
22.2 Data That Has to be Modified or Translated for the New System xvi

23 Costs **xvi**

24 User Documentation and Training **xvii**
24.1 User Documentation Requirements xvii
24.2 Training Requirements xvii

25 Waiting Room **xvii**

26 Ideas for Solution **xvii**

Revision History

Date	Version	Notes
Date 1	1.0	Notes
Date 2	1.1	Notes

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2.7 User Participation

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2.8 Maintenance Users and Service Technicians

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3 Mandated Constraints

3.1 Solution Constraints

C-SOL1. System must be cloud-based to fit in with current existing systems at the City of Hamilton.

3.2 Implementation Environment of the Current System

To understand the current practices at the City of Hamilton see the *Problem* section of the Problem Statement and Goals here.

3.3 Partner or Collaborative Applications

N/A

3.4 Off-the-Shelf Software

C-OTS1. The system must integrate with Sharepoint to synchronize documents in Sharepoint with documents in the system.

C-OTS2. The system must integrate with Infor EAM, to show the status of work orders associated with a document.

C-OTS3. The system must integrate with MySDS to show relevent relevant SDS documents to users on a given site.

3.5 Anticipated Workplace Environment

3.6 Schedule Constraints

C-SCH1. A requirement is to integrate with the Infor EAM system the city intends on using however, this system will not be available until February 2025, so no testing can be done on this system until then.

C-SCH2. The project deadline is April 2, 2025.

3.7 Budget Constraints

C-BDG1. Total expenses up until April 2, 2025 must not exceed $750.

3.8 Enterprise Constraints

N/A

4 Naming Conventions and Terminology

4.1 Glossary of All Terms, Including Acronyms, Used by Stakeholders involved in the Project

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13.4 Productization Requirements

Insert your content here.

13.5 Release Requirements

Insert your content here.

14 Maintainability and Support Requirements

14.1 Maintenance Requirements

MS-MTN1. A deployment of the system should take no more than 30 minutes (not including testing, and building time).

MS-MTN2. The build time of the system should be no longer than 10 minutes (not including testing time).

MS-MTN3. All automated tests should be able to run in under 10 minutes

MS-MTN4. The system should have rigourous unit testing, line coverage should be $\geq 95\%$, branch coverage should be $\geq 90\%$.

MS-MTN5. All core functionalities of the system (i.e. Functional Requirements), should have both automated end-to-end and unit testing corresponding to them

MS-MTN6. The project must be able to be maintained by its users, as original developers will not be maintaining it after April 2, 2025.

14.2 Supportability Requirements

MS-SUP1. The application should have user-facing documentation on how to use the core functionalities of the system (i.e. functionalities described in functional requirements).

MS-SUP2. The application should have documentation for all API's for future maintainers.

MS-SUP3. The application should have documentation of internal functions and abstractions for future maintainers.

MS-SUP4. The application should have documentation on deployment, so users can deploy this application for themselves.

14.3 Adaptability Requirements

MS-ADP1. The application must be able to run on at least Google Chrome and Microsoft Edge browsers.

MS-ADP2. The application must be able to run on tablets, smartphones, and laptops.

MS-ADP3. The application must be able to run on Android, IOS, and Windows 10

15 Security Requirements

15.1 Access Requirements

Insert your content here.

15.2 Integrity Requirements

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15.3 Privacy Requirements

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15.4 Audit Requirements

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18 Open Issues

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19 Off-the-Shelf Solutions

19.1 Ready-Made Products

Currently there exist many document management systems (i.e. Google Docs, Sharepoint). However, They miss some of the clients major requirements. The city wants to be able to integrate with their work order management system to show the status of a work order that is associated with any given document, but existing solutions do not provide this capability. They also want to be able to verify that people were at a given site, when completing work, which again there isn't a ready made product to do.

19.2 Reusable Components

We can use Sharepoint as file storage, since the city wants Sharepoint and this system to be in sync, and storing the files in two seperate locations and then syncing them will introduce a lot of overhead. Instead, all files can just be stored on Sharepoint.

19.3 Products That Can Be Copied

N/A

20 New Problems

20.1 Effects on the Current Environment

Insert your content here.

20.2 Effects on the Installed Systems

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24.2 Training Requirements

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25 Waiting Room

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26 Ideas for Solution

Insert your content here.

Appendix — Reflection

The information in this section will be used to evaluate the team members on the graduate attribute of Lifelong Learning. Please answer the following questions:

1. What knowledge and skills will the team collectively need to acquire to successfully complete this capstone project? Examples of possible knowledge to acquire include domain specific knowledge from the domain of your application, or software engineering knowledge, mechatronics knowledge or computer science knowledge. Skills may be related to technology, or writing, or presentation, or team management, etc. You should look to identify at least one item for each team member.

2. For each of the knowledge areas and skills identified in the previous question, what are at least two approaches to acquiring the knowledge or mastering the skill? Of the identified approaches, which will each team member pursue, and why did they make this choice?