

Software Requirements Specification for Software Engineering: Document Management System

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October 7, 2024

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	vii
3.6	Schedule Constraints	vii
3.7	Budget Constraints	vii
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	viii
6.1	The Current Situation	viii
6.2	The Context of the Work	viii
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)	ix
9	Functional Requirements	ix
9.1	Functional Requirements	ix
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	x
11.5	Accessibility Requirements	x
12	Performance Requirements	x
12.1	Speed and Latency Requirements	x
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	xi
13.1	Expected Physical Environment	xi
13.2	Wider Environment Requirements	xi
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	xii
14.3 Adaptability Requirements	xiii
15 Security Requirements	xiii
15.1 Access Requirements	xiii
15.2 Integrity Requirements	xiii
15.3 Privacy Requirements	xiii
15.4 Audit Requirements	xiii
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	xiv
19.1 Ready-Made Products	xiv
19.2 Reusable Components	xiv
19.3 Products That Can Be Copied	xiv
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	xv
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	xvii
22.1 Requirements for Migration to the New Product	xvii
22.2 Data That Has to be Modified or Translated for the New System	xvii
23 Costs	xvii
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	xviii

Revision History

Date	Version	Notes
Date 1	1.0	Notes
Date 2	1.1	Notes

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13.3 Requirements for Interfacing with Adjacent Systems

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13.4 Productization Requirements

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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 rigorous 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

Insert your content here.

15.3 Privacy Requirements

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15.4 Audit Requirements

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19.2 Reusable Components

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19.3 Products That Can Be Copied

Insert your content here.

20 New Problems

20.1 Effects on the Current Environment

1. The application should recognize and interact with existing systems in a way that complements rather than competes with them. It should leverage existing data and processes instead of recreating or duplicating them. It should only introduce new workflows or tasks when no suitable existing solution is in place.
2. If an existing business process can handle a particular task more effectively, the application should delegate that task rather than attempt to perform it redundantly.

20.2 Effects on the Installed Systems

1. The application should not change or interfere with the host system's configuration, performance, or files except for the necessary input and output operations.
2. When interacting with other systems, the application should only retrieve necessary data and send data if required, but only as specified, without altering or influencing the external systems' operations or configurations.

20.3 Potential User Problems

1. The user may not have access to the internet.
2. The user may not have a device which can run the application.

20.4 Limitations in the Anticipated Implementation Environment That May Inhibit the New Product

N/A

20.5 Follow-Up Problems

1. Business processes might change, changing the requirements of the application.
2. New software solutions may be introduced which make some features redundant.
3. Regulations may change adding or removing requirements.

21 Tasks

21.1 Project Planning

Project deliverables should be completed by the deadlines given in the course outline. GitHub will be used to track project milestones and tasks. Tasks will be assigned to individual team members or to groups. All work will be reviewed by other members of the team before being committed to the project. Feedback received from stakeholders, TAs, or the professor will be implemented in the project, and requirements will be changed accordingly.

Task 1. Set-up codebase and begin development of project.

Task 2. Work on documentation and deliverables.

Task 3. Get feedback from stakeholders, TAs, and the professor and implement suggested changes.

21.2 Planning of the Development Phases

1. *Proof of Concept*: Will start development after October 9th, 2024. Aim to complete by November 4th.
2. *Rev. 0*: Aim to complete by February 1st, 2024.
3. *Rev. 1*: Aim to complete by March 30th, 2024.
4. *Future revisions*: TBD

22 Migration to the New Product

22.1 Requirements for Migration to the New Product

Insert your content here.

22.2 Data That Has to be Modified or Translated for the New System

Insert your content here.

23 Costs

The cost for the application should not exceed \$750 unless approved by the professor and the stakeholders for the project.

It is expected that the team will spend 40 man-hours per week on the project until its completion.

Item	Cost	Description
Cloud Services	\$ TBD	Amazon Web Services (AWS)
Domain Name	\$ TBD	TBD

24 User Documentation and Training

24.1 User Documentation Requirements

Insert your content here.

24.2 Training Requirements

Insert your content here.

25 Waiting Room

Insert your content here.

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?