Comparison Of Various Software Requirements Specification Formats

IT350: Software Engineering
Assignment 2

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IEEE Format

Pros:

1. A very detailed explanation of each and every concept.
2. To the point detailing, no extra bits
3. Useful for developers to get a good idea about the proceedings of the project.

4. Any changes made can be easily recorded via the “Revision Table”.
5. The document evolves as the project starts to be implemented.
6. A standard document convention.
7. Client gets an idea of how the user interface may look.

Cons:

1. Many requirements cannot be specified in the beginning by the client.
2. It is a rigorous task to complete the SRS.
3. As it is an evolving document, there will be many changes made.
4. “To be determined list” sometimes remains unfulfilled and might be bothersome.

Format 2

Pros:

1. A very simple format
2. Use case,class diagrams help in a better understanding of the project

Cons:

1. Maybe a too simple SRS.
2. No mention about user documentation.
3. No revision history maintained.
4. Too little or subtle explanation of things.

Format 3

Pros:

1. Simple and easy to make.
2. The copyright, license and all legal formalities get a mentioning in the SRS.

Cons:

1. No UML, USE CASE diagrams which are helpful for the developers.

Format 4

1. Purpose
2. Scope
3. Product Perspective
3.1. System Interfaces
3.2. User Interfaces
3.3. Hardware Interfaces
3.4. Software Interfaces
3.5. Communications Interfaces
3.6. Memory Constraints
3.7. Operations
3.8. Site Adaptation Requirements
4. Product Functions
5. User Characteristics
6. Limitations
7. Assumptions And Dependencies
8. Apportioning Of Requirements
9. Specific Requirements
10. External Interfaces
11. Functions
12. Usability Requirements
13. Performance Requirements
14. Verification
15. Supporting Information

Pros:

1. Standards for qualification of the software is mentioned.
2. “Site adaptation Requirements” ensures that the final stable software is compatible across all devices.
3. Has information on memory constraints.

Cons:

1. Hard to write all the details and is complicated too.
2. Client cannot specify all details in the initial stages of the software development.

Format 5

1. Introduction
1.1 Purpose
1.2 Document Conventions
1.3 Intended Audience and Reading Suggestions
1.4 Project Scope
2. Overall Description
2.1 Product Perspective
2.2 Product Features
2.3 User Classes and Characteristics
2.4 Operating Environment
2.5 Design and Implementation Constraints
2.6 User Documentation
2.7 Assumptions and Dependencies
3. System Features
Core Features
Additional Features
4. External Interface Requirements
4.1 User Interface
4.2 Hardware Interfaces
4.3 Software Interfaces
4.4 Communications Interfaces
5. Other Nonfunctional Requirements
5.1 Performance Requirements
5.2 Safety Requirements
5.3 Security Requirements
5.4 Software Quality Attributes
6. **Key Milestones**
7. Key Resource Requirements
8. Other Requirements
9. Appendix A Glossary
10. Appendix B Project Proposal

Pros:

1. System feature contains subjects as core features and additional features which help in better understanding of the software.

2. “Key milestones” can be compared to time periods where the client will be shown the progress of the software.
3. Less complicated.
4. “Project proposal” gives an overall view of how the end product will be.
5. “Software quality attributes” ensures the quality of end product to the clients.

Cons:

1. The developers may not keep up to the “Key milestones” promise and may cause issues.
2. Client can’t specify all the requirements in the beginning.