Software Engineering (IT350)
Assignment – 2

Submitted by:
Vrishabh Sharma
15IT242

Submitted to:
Ms. Raksha R Nadigar
NITK Surathkal

Comparison between various SRS formats

Different companies use different SRS formats according to their need.

This document provides a comparative analysis between SRS IEEE standard and SRS formats used by various companies.

Comparison of IEEE SRS and INFOSYS SRS:

1. Infosys's SRS is quite detailed in comparison to IEEE's format. In the first section 'Overview' a brief description of the current system and limitations of the current system are specified followed by an overview of the proposed system and objectives of the proposed system. The IEEE format lacks the information about the current system.
2. Certain events like business events, external events and temporal events are to be specified in Infosys's SRS. Also, the inputs and outputs and relations between the inputs and outputs for each business event are specified.
3. A separate section called 'Prototype' is provided in the Infosys SRS format. IEEE Std format lacks such a section.

Comparison of IEEE SRS and IBM SRS:

1. In the introduction section of IBM SRS format, the overview of the entire SRS and also the technologies to be used for the implementation of SRS need to be mentioned. While in IEEE SRS, only the overview of the SRS is needed in the Introduction section.
2. The description of the system requirements is divided into respective different detailed subsections which is very easy to access and differentiate in IEEE SRS format comparative to IBM SRS format.
3. The description of the system features of each use case with priority, response types and their functional requirements are need to be clearly stated in IEEE SRS.
4. IEEE format allots a major space to functional and non-functional requirements whereas IBM allots a small portion under the heading 'Supplementary Requirements' to include the requirements, this makes the SRS concise and allows the user to give importance on only certain necessary requirements, the developer need not worry about unnecessary requirements like business rules in the requirement stage.

5. Definitions, Acronyms and Abbreviations are provided in the starting in the case of IBM Standard format whereas they are listed towards the end in the Appendix in IEEE format.
6. IBM SRS format also provides a section for concerns, doubts and queries if any.

Comparison of IEEE SRS and TCS SRS:

1. TCS SRS follows a very detailed analysis and concentrates more on the software i.e. software requirements, software testing, software safety, etc.
2. TCS format also provides a section for configuration control and deliverables.

Comparison of IEEE SRS and Tech Mahindra SRS:

1. Tech Mahindra's SRS format is quite similar to IEEE format specifying the various system features and their importance. It however doesn't provide a separate section for non-functional requirements. It mainly gives emphasis on the product and doesn't describe the users of the product and use class characteristics.

Drawbacks of IEEE SRS:

1. There is no section of requirement for test cases in SRS document. A testable requirement can be defined as a requirement, which can be tested and validated using any of the available methods. It is possible to ensure that the requirement has been implemented correctly if each requirement is not tested.
2. It does not provide all the information needed to implement the exit, in case of error. In many cases, the system exits gracefully if it any error takes place. For example, a complete requirement would be such that in case of an error, the system must show an error page to the users with the particular message.
3. Mentioning of specifications of the system multiple times.
4. Providing of database design schema in the document would be helpful for the developer.
5. Inconsistency: A SRS is consistent if, and only if, no subset of individual requirements described in it conflict.
6. Referring to an unambiguous SRS means that every stated requirement has only one interpretation. The causes for ambiguity are natural language pitfalls and differing domain expertise.
7. Correctness: SRS is described as correct “if, and only if, every requirement stated therein is one that the software shall meet”.
8. The completeness of SRS is a problem as well. A SRS is complete if the following conditions are met:
   1.) All requirements are included.
   2.) Definitions of the responses of the software are complete.
   3.) Full labels and references to all elements.