Reflective Report

Soma Sekhara Sarat Chandra Panamgipalli

sopb@student.bth.se

Article selection: The articles selected are

T. Gorschek and C. Wohlin, "Requirements abstraction model," Requir. Eng., vol. 11, no. 1, pp. 79–101, 2006.[1]

The above article is selected because the method which is explained by the author is interesting to me. The output after performing this method will be used for prioritizing and also for release planning requirements.

Implementation Plan:

The requirements chosen for implementing using RAM model are three. The system for which the requirements are gathered is website. The implementation of the requirements is done based on the guidelines which are provided in the article.

Execution:

As per the guidelines the requirements are initialized. There are four different levels in the guide lines and they are,

1. Product level
2. Feature level
3. Function level
4. Component level

The requirements are analyzed based on the level of guidelines provided in the article. Each level has some characteristics and the requirements are measured with the characteristics to which level they are suitable for.

Proof of concept:

The requirements which are chosen for the implementation are Login, In-correct login and User profile.

The requirements which are taken come under

Login- Feature Level

In-correct Login- Functional Level

User profile- Feature Level

Remaining requirements for Login:

The requirement for Login in Product level- System must provide an authorized access.

The requirement for Login in Function level- Login credentials.

The requirement for Login in component level- The text fill area and the login button should be provided.

Remaining requirements for In-correct login:

The requirement for In-correct login in Product level- System should provide alerts.

The requirement for In-correct login in Feature level- An email is sent to the registered email about the unsuccessful login attempt.

The requirement for In-correct login in component level- Redirects to the login page by showing an error.

Remaining requirement for User profile:

The requirement for User profile in Product level: Directing the user to the user profile after a first successful login is made.

The requirement for User profile in Function level: Showing the profile filled in percentage.

The requirement for User profile in Component level: The profile should contain some mandatory options like profile picture, email and phone number.

Lessons learned:

I found that implementing of this technique is easy for the three requirements. But in large-scale requirements the requirements would be more than 3000. The model provides a guidelines so that it is easy to organize and the level of each requirement can be determined. By considering this approach it is easy to prioritize and plan for the release. The handling of requirements for large scale would be difficult. For some requirements it is easy to breakdown. The requirements are assigned to the levels which are provided in the guidelines.

Reflections:

The RAM method provides the level of the requirements to which they belong to. Whereas the implementation is somewhat complex for large scale requirements as this implementation can be helpful for further tasks which simplifies the task as in MERTS[2] method it will be really helpful by implementing the RAM model before performing it. Finally the RAM model implementation explains to me the difficulty in handling the requirements and the above lessons I mentioned.

Second Article:

Article selection: Karlsson, Joachim, and Kevin Ryan. "A cost-value approach for prioritizing requirements." *Software, IEEE* 14.5 (1997): 67-74.

Implementation Plan: The requirements chosen for implementing AHP is three. The system for which the requirements are gathered is website.

Execution:

Table: Pair wise comparison

	R1	R2	R3
R1	1	5	7
R2	0.2	1	3
R3	0.14	0.33	1

Table: Averaging through normalizing

	R1	R2	R3
R1	0.813	0.789	0.636
R2	0.16	0.157	0.272
R3	0.11	0.052	0.090

2.238
0.589
0.252

0.746
0.196
0.084

Cost for R1 is 55, R2 is 35 and R3 is 10. These values are assumed.

Value cost ratio for R1- 1.35 – medium

Value cost ratio for R2 0.56 - medium

Value cost ratio for R3 0.084 - low

Proof of concept:

The requirements chosen are

R1- Login

R2- In-correct login

R3- User profile

Lessons learned: This technique is good for the requirements prioritization and can be applied for LSRE with corresponding efforts. But then it is a bit challenging for requirements of the order of ~1000 this can prove difficult to implement.

Reflections:

References

[1] T. Gorschek and C. Wohlin, “Requirements abstraction model,” Requir. Eng., vol. 11, no. 1, pp. 79–101, 2006.

[2] Khurum, Mahvish, Khurum Aslam, and Tony Gorschek. "A method for early requirements triage and selection utilizing product strategies." Software Engineering Conference, 2007. APSEC 2007. 14th Asia-Pacific. IEEE, 2007.

[3] Karlsson, Joachim, and Kevin Ryan. "A cost-value approach for prioritizing requirements." *Software, IEEE* 14.5 (1997): 67-74.