

SmartHome+ Deliver3

Post Mortem

Provided by:(Team-30)

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Regarding tasks 1- 3, answer the following questions

3

Which process did you follow for your requirements activities in tasks 1-3 of this assignment? Show all the steps in time, describe what they constituted and the motivation for why you chose this technique/step at that point of your overall process. **3**

Based on the process description from question 1 and the detailed logging information you should summarize how much time was spent (in total and by each group member) on the steps/activities involved as well as for the project as a whole? Note that this information will in no way be used for any grading; you do not even know if we think being more efficient (doing more in less time) is better or worse than being more effective (having a better resulting SRS). **3**

For each of the requirements documentation techniques you used (use case, diagrammatic notations, etc.) answer the following questions: **4**

For your next project, which set of techniques (that you used here or that you have not used here but know from theory or other projects) would you use for specifying requirements? Why? Clearly motivate your selected set of techniques and discuss how they complement each other. Consider both the quality of requirements it helps create and how much time is needed to effectively use the technique. **4**

What (other than the specification techniques) worked well in how you worked in this project? **5**

What (other than the specification techniques) did not work well in how you worked in this project? **5**

Time Summary **5**

Team Work **5**

How did you work together as a group in the project? **5**

What worked well, and what did not work during your interaction(s)? **6**

What would you do differently in the future? **6**

Appendix **7**

Task 1: **7**

Task 2: **7**

Task 3: **7**

Task 4: **7**

Additional: **7**

1. Regarding tasks 1- 3, answer the following questions

- 1.1. Which process did you follow for your requirements activities in tasks 1-3 of this assignment? Show all the steps in time, describe what they constituted and the motivation for why you chose this technique/step at that point of your overall process.

- For more detail, click the work distribution document:
https://docs.google.com/document/d/1H-tzOpnb4eJx6jbOkxMoEdt-QySxy1AtOukmE_JxNSE/edit?usp=sharing

After quiz 3 we have two days only to make a Semi-finish version to finish.

Currently, no grading schema provided, consider distributing works based on the workload.

Version	Target	Time
1.0	UCM, SRS report/ Update the version document relatively	Mon-Fri(07/27-31)
Quiz 3	Lecture 5a/5b/6a/6b Review	Sat-Tue(08/01-08/04)
2.0	The finished version, add all correct items that you could come up in the SRS/UCM/VD documents, as much as you can.	Wed-Thu(08/05-08/06)
1.x, 2.x	Reviewed / Modified version	Any time

Version 1.0 work distribution table

Work	Name	Deadline
Task 1(Need first fix it)	All	fix bug:07/27 Mon Consistency update: 08/06 Thu
Task 2 – use case doc1	Samuel Vineeth	07/28 Tue
Task 2 – use case doc2	Ravi Kadiwala	07/29 Wed
Task 2 – use case diagram1 & doc validate via Boss/EBP	Tian Wang	07/31 Fri
Task 2 – use case diagram2 & doc matching(to VD)/review	Wenhui Guo	07/31 Fri
Task 3 part1	Tianlin Yang	07/31 Fri
Task 3 part2	Haitun Liao	07/31 Fri
Task 4 and verification	All	08/06 Thu
Additional work (re-check, document, combination etc.)	All	08/06 Thu

If anyone finished earlier, they need to help others.

- The process we follow as shown in the above figure and link, the process target to divide workload to different parts and improve the time efficiency of teamwork.
- To avoid impact on Quiz3 preparation, a reasonable schedule of time has been setted.
- As a result, this process helped us finish 1.0 version to meet basic requirements of delivery 3 at a very early time, every one could focus on Quiz 3 preparation. Also it saves much more time on ineffective communication for “what to do” and “how to do”.

- 1.2. Based on the process description from question 1 and the detailed logging information you should summarize how much time was spent (in total and by each group member) on the steps/activities involved as well as for the project as a whole? Note that this information will

in no way be used for any grading; you do not even know if we think being more efficient (doing more in less time) is better or worse than being more effective (having a better resulting SRS).

- Check the Part 2.Time Summary.
- 1.3. For each of the requirements documentation techniques you used (use case, diagrammatic notations, etc.) answer the following questions:
- a. What was the advantage of this technique based on your experience in this assignment?
 - The use case describes the functions of the system entirely from the perspective of the user (from the outside of the system). Regardless of the mechanism of the system's internal functions, we only regard the system as a black box, and then the participants interact with it, that is, the use case is based on the user scenario, so for the user's functional requirements, we can express them more accurately by using use case.
 - Diagrammatic notations help us visualize the use case, make it easy to understand the interface and collaborations of existing systems or to document the architecture. It is very useful in complex use cases with many alternative flows or extensions, it also can easily convey Parallelism.
 - b. What was the disadvantage of this technique based on your experience in this assignment?
 - Cannot express non-functional requirements. The use case diagram is a tool to describe the user's functional requirements, and it is powerless for non-functional requirements such as reliability and performance.
 - It is difficult to understand for customers or programmers who do not understand UML. For UML supporters, use case diagrams may be standardized, clear, simple, and easy to understand, but it is not easy for those who do not master UML modeling technology to understand those ellipses, and there are a series of pseudo Code-like event flow.
 - The use case diagram does not involve design and implementation details, it is just a functional division, the granularity is very coarse, many details cannot be described, and other tools are needed for auxiliary explanation.
 - Diagrammatic notations need to be consistent with the use case, if the use case changes the diagram also needs to be modified, it costs more time.
 - c. How efficient was the technique, i.e. how good requirements did it help uncover given the time it took to use?
 - Use case diagrams can show an overview of requirements through the relationship of inclusion, generalization, and expansion. So that we can quickly recognize the needs, and then provide a reference for more detailed analysis activities carried out in the follow-up, so it will improve the efficiency of the requirements acquisition process
 - d. In which situations would you use this technique in a future project? In which situations would you not use this technique in a future project?
 - When we have a vague definition of requirements and do not understand what the actual needs of users are, at this time, the use case diagram has a very important meaning for requirements analysis.
 - Use case diagrams are not the only tool that provides requirements analysis. When user needs are clear, we do not need to use diagrams to clarify requirements. But it can unify and standardize all our modeling.
- 1.4. For your next project, which set of techniques (that you used here or that you have not used here but know from theory or other projects) would you use for specifying requirements? Why? Clearly motivate your selected set of techniques and discuss how they complement each other. Consider both the quality of requirements it helps create and how much time is needed to effectively use the technique.
- The purpose of writing use cases and drawing use case diagrams is to confirm requirements with users, but in fact many users cannot understand use case diagrams. Therefore, writing use cases is necessary, and drawing use case diagrams is optional. If

the use case is not clearly written, it makes no sense to draw as many use case diagrams. On the contrary, if the use case is written clearly and accurately, the purpose of confirming the needs with the customer can be achieved even if the use case diagram is not drawn.

1.5. What (other than the specification techniques) worked well in how you worked in this project?

- The paper research via literature review is worked well by helping us to have a full understanding of how to write Use Case in a professional manner, what kind of language we have to use, granularity of details that we have to mention while creating diagrams. For diagrams we first understood the difference between symbols defined in UML and picked the right symbols to display system functionality in the most convenient manner.

1.6. What (other than the specification techniques) did not work well in how you worked in this project?

- The evaluation schemas and detailing mentioned in some papers to create Use cases are not suitable for our project, for example they have created diagrams for most of the use cases but in our case we managed to draw diagrams for most important features only. We thought of using formal specification language to explain our use cases. By writing use cases using formal specification languages like (Z specification, predicate/propositional logic), we planned to bring some automation in the validation and verification process like we saw in literature reviews but to implement such a method required more time.

2. Time Summary

The time format is hour:mm.

Name	Task 1	Task 2	Task 3	Task 4	Addition	Total	On time
Tianlin Yang	01:51	14:30	08:09	00:24	6:49	31:43	Yes
Tian Wang	01:21	17:54	00:30	00:55	\	20:40	Yes
Ravi Kadiwala	00:30	14:42	00:20	00:35	\	16:07	Yes
Samuel Vineeth	00:30	13:30	00:15	00:15	\	14:30	Yes
Haitun Liao	01:21	08:23	08:27	00:39	\	18:50	Yes
Wenhui Guo	01:21	15:12	\	\	\	16:33	Yes
Total time	6:54	59:41	17:41	2:48	6:49	118:23	\

3. Team Work

3.1. How did you work together as a group in the project?

- Divide works over the ‘Use Case writing’, ‘Use case diagrams’, ‘Activity, Sequence and state diagram’, ‘Use case validation’ and ‘Supplementary Specification’.

- Parallel schedule like one team is working on supplementary specification and other on Use case writing.
- Once we are done with Use case writing one team is started working on diagrams and other on Use case validation.
- All together work on 'Task1' and 'Task4'.
- Discussion and help each other in WhatsApp and Zoom.
- Frequent updates and reviews by all of us.

3.2. What worked well, and what did not work during your interaction(s)?

- This time, we did a better job than delivery one and two. More reasonable distribution and time scheduling.
- Still the Zoom and WhatsApp are shortages, online communication will take much more time and effort on it compared with face to face contact.

3.3. What would you do differently in the future?

- For next time, the better approach is to clear structure and principle behind before the project initializes.
- Not only limited to voice contact, may use online diagram sketch by ipad etc., it will help us communicate together for future UML, use cases design.

Appendix

Logging

<https://docs.google.com/spreadsheets/d/1LrSbNdr6ag7kTcRXCQvUdn2C9gJ8p5HzCGz95QjC7jQ/edit?usp=sharing>

Task 1:

Delivery 3: Task1 Vision document update						Comment	Personal Time
Name	Date	Start time	End time	Time Cost	Work		
All(except Ravi/Samuel)	27 July	13:00	14:21	01:21	First meeting, fix bug on vision document	Start	Tianlin Yang 01:51
Tianlin, Ravi, Samuel	27 July	15:00	15:30	00:30	First meeting-2, discuss about use case model part	Meeting	Tian Wang 01:21
							Wenhui Guo 01:21
							Samuel Vineeth 00:30
							Ravi Kadiwala 00:30
							Haitun Liao 01:21
personal hour							
Total time:		6:54:00					

Task 2:

Delivery 3: Task2 Use Case Model						Comment
Name	Date	Start time	End time	Time Cost	Work	
Samuel Vineeth	28 July	13:00	16:30	03:30	Added Main and Brief Use-cases	Start
Ravi Kadiwala	28 July	13:00	16:30	03:30	Added Main and Brief Use-cases	Update
Tianlin Yang	28 July	19:37	20:27	00:50	Review draft of use case, added examples.	Review
Tian Wang	29 July	20:10	21:30	01:20	Validated several use cases	Update
Wenhui Guo	29 July	20:10	21:30	01:20	Validated several use cases	Update
Ravi Kadiwala	30 July	08:30	09:26	00:56	Updated use case name suggested by team	Update
Tianlin Yang	30 July	18:38	19:42	01:04	Review UC4, added examples.	Review
Samuel Vineeth	30 July	16:30	20:30	04:00	Added description for two full dressed use cases	Update
Ravi Kadiwala	31 July	09:00	11:15	02:15	Added two fully dressed use cases	Update
Tian Wang	31 July	11:30	15:30	04:00	Validated use cases, drewed diagrams	Update
Wenhui Guo	31 July	11:45	15:30	03:45	Validated use cases, drewed diagrams, reviewed UCs	Update
Tianlin Yang	31 July	14:48	16:51	02:03	Review UC 01-03, rebuild UC03 to fully dressed	Review
Ravi Kadiwala	31 July	17:30	21:05	03:35	Added fully dressed UC 10-13, Added description of brief UC	Update
Samuel Vineeth	31 July	17:30	20:30	03:00	Added 3 fully dressed cases and 6 breif UCs	Update
Tian Wang	31 July	20:20	21:40	01:20	Review UC1-UC3 and Draw UC2 sequence diagram	Review
Wenhui Guo	31 July	20:20	21:40	01:20	Review UC1-UC3 and Draw UC2 sequence diagram	Review
Tianlin Yang	31 July	21:27	22:25	00:58	Review updated UC, modify.	Review
Tian Wang	1 August	12:00	14:58	02:58	Draw diagram	Update
Wenhui Guo	1 August	12:00	14:58	02:58	Draw diagram	Update
Tianlin Yang	1 August	16:25	17:23	00:58	Format UCM file, add Actor-Goal List draft	Update
Tian Wang	1 August	20:20	21:00	00:40	Draw UC category 1 diagram, review UC	Update
Wenhui Guo	1 August	20:20	21:00	00:40	Draw UC category 1 diagram, review UC	Update

Tianlin Yang	5 August	01:09	01:20	00:11	Fix Actor-goal part bugs	Bug fix
Ravi Kadiwala	5 August	10:15	12:11	01:56	Added fully dressed UC	Update
Tianlin Yang	5 August	09:57	12:38	02:41	Added 4 fully dressed cases with references	Update
Tianlin Yang	5 August	14:17	16:31	02:14	Added 4 fully dressed cases with references	Update
Tianlin Yang	5 August	16:31	17:55	01:24	Added verifications for new use cases relatively.	Update
Tianlin Yang	5 August	20:12	21:29	01:17	Formatting diagram parts, add doc on it.	Update
Haitun Liao	5 August	19:15	22:23	03:08	Review UCM file, draw UC03 SSD	Update
Wenhui Guo	5 August	17:15	18:21	01:06	Review UC, Modify category 1 diagram, draw category 3 diag	Update
Wenhui Guo	5 August	20:42	22:32	01:50	Review UC, draw category 5,6 diagram	Update
Wenhui Guo	5 August	23:24	00:14	00:50	Draw UC03 state diagram	Update
Tian Wang	5 August	17:22	19:28	02:06	Review UC, Draw category 2,4 diagram	Update
Tian Wang	5 August	21:27	22:09	00:42	Review UC, Modify category 4 diagram	Update
Tian Wang	5 August	22:31	23:10	00:39	Review UC, Modify UC03 SSD	Update
Tian Wang	6 August	00:37	01:29	00:52	Review UC, Draw UC03 Activity diagram	Update
Tianlin Yang	6 August	00:01	00:51	00:50	Added diagrams	Update
Wenhui Guo	6 August	10:45	11:10	00:25	Review UC, modify diagram	Review
Tian Wang	6 August	08:55	11:22	02:27	Modify Activity diagram,draw UC05 SSD,Activity diagram,State	Update
Haitun Liao	6 August	09:00	11:50	02:50	Draw UC04 SSD and UC11SSD, fix bug	Update
Ravi Kadiwala	6 August	09:20	11:50	02:30	Draw UC09 Sequence, State machine and Activity diagram	Update
Wenhui Guo	6 August	12:55	13:53	00:58	Draw UC04 activity diagram	Update
Ravi Kadiwala	6 August	13:20	13:50	00:30	Review document	Review
Tian Wang	6 August	13:30	14:20	00:50	Draw UC04 State machine diagram, UC11 State machine dia	Update
Haitun Liao	6 August	13:12	15:37	02:25	Draw UC11 activity diagram,review	Update
Samuel Vineeth	6 August	17:12	19:12	02:00	Draw UC08 acitivity, sequence and state	Update
Total time:		59:41:00				

Task 3:

Delivery 3: task3	Supplementary Spec					
Name	Date	Start time	End time	Time Cost	Work	Comment
Tianlin Yang	28 July	13:00	15:20	02:20	Writing part 1-7 of SS doc, for architecture of context.	Start
Tianlin Yang	29 July	12:49	14:02	01:13	Wrting part 1-7 of SS doc.	Update
Tianlin Yang	29 July	16:03	18:16	02:13	Wrting part 1-7 of SS doc.	Update
Haitun Liao	29 July	19:37	21:39	02:02	Wrting part 8-14 of SS doc.	Update
Haitun Liao	30 July	17:23	18:50	01:27	Wrting part 8-14 of SS doc.	Update
Tianlin Yang	31 July	00:04	00:52	00:48	Wrting part 1-7 of SS doc.	Update
Tianlin Yang	31 July	13:54	14:41	00:47	Finish draft 1-7.	Update
Tianlin Yang	31 July	22:25	23:13	00:48	Review draft 1-7.	Review
Haitun Liao	31 July	13:52	17:50	03:58	Wrting part 8-14 of SS doc.	Update
Haitun Liao	1 August	10:39	11:10	00:31	Finish part 8-14 of SS doc, 1.0 version complete	Update
Ravi Kadiwala	6 August	13:00	13:20	00:20	Review whole document	Review
Tian Wang	6 August	15:07	15:37	00:30	Review whole document	Review
Haitun Liao	6 August	16:53	17:22	00:29	Review whole document	Review
Samuel Vineeth	6 August	19:13	19:28	00:15	Review whole document	Review
Total time:		17:41:00				

Task 4:

Phase1: Answering questions, Phase2: review/edit						
Delivery 3: task4	Date	Start time	End time	Time Cost	Work	Comment
Ravi Kadiwala	6 August	14:05	14:40	00:35	Added/Modified few awnsers and reformat the document	Start
Tianlin Yang	6 August	14:48	15:12	00:24	Added answers, change questionaire to D3 type	Update
HaitunLiao	6 August	17:52	18:31	00:39	Added answers	Update
Tian Wang	06 August	17:27	18:22	00:55	Added answers 1.3 and 1.4	Update
Samuel Vineeth	6 August	19:29	19:44	00:15	Reviewed the document	Update
Total time:		2:48:00				

Additional:

Delivery 3: Additional						
Name	Date	Start time	End time	Time Cost	Work	Comment
Tianlin Yang	26 July	12:00	15:00	03:00	Initilize all templates, research on d3.	Project Start
Tianlin Yang	27 July	14:21	14:25	00:04	Record questions for POD section	POD
Tianlin Yang	31 July	13:15	13:53	00:38	Discuss questions with POD friday Arpit section	POD
Tianlin Yang	6 August	10:15	12:15	02:00	Format the diagrams part	Format
Tianlin Yang	6 August	17:40	18:47	01:07	Format the main report, generates HD .PDF	Finish
Total	6:49:00					