Renting System Group 6

Subject: Software Engineering Prof. Saurabh Tiwari

LAB - 6 Software Engineering Case Based Learning Exercise

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1. Identify all the stakeholders and users of the systems. Enlist all features of the LIC Market-Driven system by each user of the system, in the form of user stories. Can you prioritize them using the requirement prioritization techniques? (e.g., AHP, Numerical Assessment, MoSCoW method, etc.) How? Provide details.

Ans:

Stakeholders:

- 1. Agents
- 2. Customer
- 3. Insurer(LIC)
- 4. Investor

Users:

- 1. Insurer
- 2. Customer
- 3. Agents

Features:

- 1. As a user, I should be able to add features to my packages.
- 2. As a user, I should be able to edit features to my packages.
- 3. As a user, I should get a reasonable price for my package.
- 4. As an agent, I should be able to show all the existing packages to users.
- 5. As a user, I want to get the suggestions for the customized package I am submitting.
- 6. As a user, I want to access the system anytime.
- 7. As a user, I want to access the system on any device.
- 8. As a user, I would like to get a fair price for the customized package I am proposing.
- 9. As an agent, I would like to show details about specific insurance packages to users.
- 10. As a user, I should be able to see all the existing packages for users.
- 11. As a user, I should get the list of all insurance packages available in the market.
- 12. As a user, I should be able to buy my package on my own, w/o agent.
- 13. As a user, I should be assured that my data is secured and won't be misused.

Prioritize technique we use is MoSCoW:

Must: 3,4,6,7,10,11 Should: 1,2,8,9,13

Could: 5 Won't: 11

2. Prepare a list of market-facing technologies helpful for this project. According to you, would market facing technologies be helpful in the proper deployment of the product? Why? Ans:

List of market-facing technology.

- → Digital signage,
- → Digital kiosks
- → Rugged tablets
- → Mobile Point-of-Sale (mPOS)
- → Software applications.
- → Machine Learning and AI.

According to us, these market facing technologies would be highly beneficial in the overall functioning of the system. Be it handling lots of data simultaneously, processing them and providing suggestions automatically to the submitted by the customer.

3. Suggest an effective requirement engineering framework that can be used in market-facing projects because there are no existing systems that can be analyzed for the development so we need to consider all requirements from the core.

Ans:

For requirement elicitation we can take reviews of LIC Agents and customers. Also, we can analyze similar kinds of softwares from other companies. We need to build this software from scratch so, We can implement this software using the SCRUM Model.

4. List out the possible features those are not feasible to consider. Can you provide justification for each of them in detail?

Ans:

According to the feature presented we can suggest to the users which policy might be best for them as their data is made available for the tech companies to analyze but since this hinders the privacy of the user, we need to have a different feature so that we can provide suggestions to our users.

5. Let us assume that the customized package developed by the customer (using your second product) is similar to the package available in your pre-defined package. What is the possible reason behind this defect? How can it be ensured that this would not happen? In which requirements engineering activity, this defect can be handled? Please provide a scenario to justify.

Ans:

The reason for this defect can be that the customer has not properly analyzed the existing predefined packages or the system has not provided sufficient information for predefined packages.

- To improve upon this we can provide them more flexibility over forming customized packages so that they can have utmost satisfaction at their choice.
- This defect can be considered in the conflict resolution phase of Requirement engineering activity.
- Also, we believe that it's not completely possible to avoid these types of issues, but the system can suggest all the related packages to the consumers, that are existing in the system as well as frequently bought features.
- **6.** Identify three different use cases where the conflicts between the requirements occur? Do you think that the conflicts can be resolved? How? Ans:
 - There are many customer insurance packages that are not provided at the customer's price because customers want it at a low price but if the system shows a higher price this conflict can't be solved.
 - Some customer insurance packages that did not satisfy system insurance policies.
 - Main requirement for this type of system where the user interface is most important is that latency would be small as possible but this implementation is costly.

- **7.** Considering the set of features you have identified, what are the non-functional aspects associated with this system? Explain rationale behind the selection of each of them. Ans:
 - System should be available for 24X7 service. If in case the system has some malfunctioning, the system should be available within 1-2 working days.
 - System should handle a large number of requests(upto 10000) at the same time.
 - System should be available for any platform like website, app in android and ios etc.
 - Need highly secure servers to prevent user data leaks. Every user is provided with a username and password to keep it secure.
- **8.** Can there be 'Open Issues'- issues those are identified but not taken care of? If yes, what are they? Are there some alternative ways for their resolution, such that no requirements conflict will happen?

Ans:

- the list of all insurance packages for other insurance companies available in the market.
- We can implement the feature to chat between customers and Software for basic information. Alternative way for this is to provide all FAQs in the website page.