

# Software Engineering Case Based Learning Exercise

GROUP 19

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**Q1. 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.**

Stakeholders:

- Retinode software solutions
- LIC
- Policy Agent
- System-Developers
- System-Testers
- Owners
- Managers
- Policy Designers

Users:

- Policy Agent
- Insurers
- LIC company members

Features in the form of user stories:

1. As a user, products should be based on the customer priority so that I can choose the best product available.
2. As a user I should be able to create an account so that I can be a part of LIC
3. As a user I want to create and customize the package with a combination of policies suitable for me.
4. As a user I want to see all the policies that LIC is providing to me.
5. As a manager I want the system to predict the price providing optimized profit of the custom package designed by the user.

6. As a user I want the best package for me at the cheapest rate as per my requirements.
7. As a user I want a system to suggest the best packages to me which fit in my requirements.

We would use MoSCoW technique to prioritize the requirements.

- MUST (Mandatory) - 2,4,6
- SHOULD (Of high priority) - 3,1,5
- COULD (Preferred but not necessary) - 7
- WOULD (Can be postponed and suggested for future execution)

**Q2. 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?**

**Machine Learning and AI** : Techniques can be used to predict the price at which it increases the probability of the user purchasing the deal by tracking the user behaviour in the website and constantly training on it.

Market-facing technologies/websites that might be helpful for the development of this project are **Acko , policybazaar, paisabazaar**

We can use the below methods to reach out customers/clients

- Digital marketing
- Social media
- Easy-to-use Website and native mobile application
- Take customer feedback/surveys
- TV interviews / Podcasts

Yes, these technologies are very useful for the proper deployment of the product. Since these technologies are helpful in getting the view of the customers and also

these are helpful in attracting new customers to our product. It also ensures that we resolve the bug that comes across while using the product.

**Q3. 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.**

Requirement engineering framework:

- Analyse digital system of a similar company from the domain
- Interviewing experts of the domain
- Crowd survey of general public
- Studying the market and user stories

After performing all these collection techniques , we will analyse , understand and prioritize the data collected from it . After that we need to document the processed data and requirements and make a framework providing an effective sequence for developing a tool and edit and maintain it with changing requirements.

**Q4. List out the possible features those are not feasible to consider. Can you provide justification for each of them in detail?**

Features that are not feasible to consider:

Smart Contracts in Blockchain cannot be used because there has to be a human in order to verify the information provided by the customer and in case there are fraudulent people trying to claim insurance they can be prevented. Although there is a lot of potential for this technology, validation remains an issue.

**Q5. 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.**

1. The packages are optimized according to the market demand and customizing it further would be useless and would not render any significant result.
2. The defect can occur because the testing of the system is not perfect. This in turn will not provide optimized packages with optimized price to the users. We can provide flexible benefits or we can provide different time based benefits also from which customers can choose according to their demand and get an optimized package.

**Q6. Identify three different use cases where the conflicts between the requirements occur? Do you think that the**

1)A conflict can be that the user doesn't want some feature from the base package or just want to add one or two features , but when he designs a new package with subtracted or added feature it shows price similar to the base package with closest resemblance and hence it might incur a loss to the customer.This can be resolved by providing an option to top or remove features from the currently available packages with extra features by charging extra for the additional feature requested on top of base price and reducing price by

2)There is also some possibility that the package that is offered by the company has a price higher than a package designed by the user with similar policies and features This can incur a loss to the company. This can be resolved by designing a system which predicts price by analysing the price in base packages for given features.

**Q7. 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.**

Non functional requirements:

1. **Security** : User data - User data will be encrypted and stored in our servers and will be only accessible to the website owners given that the user is allowed to share his/her information.
2. **Data Integrity And Retention** : Retention refers to managing the loss of data and at this stage, our system needs to have resources that prevent such circumstances.
3. **Availability** : The website should be available for 24x7.
4. **System Reliability** : The ability of the system to perform well and minimize failures. The overall mean time should be high.

**Q8. 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?**

Open Issues:

If there exists a package which cannot attract more customers then the system should analyze the custom packages and replace it in order to get more sales for that package.

There exists no system which can validate the claims made by the insurance buyers. Fraudulent validation is a very common thing now.

In order to keep up with competing prices we need to track user behaviour by AI but that goes against user privacy.