Software Engineering Case Based Learning Exercise
Group 29

LIC Market-Driven System

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**

Stakeholders	**User Stories**
Agents	As an agent I want to see all the packages provided by the company.
Manager	As a manager I want to create and modify procedures and documents related to the policies.
Insurance broker	As a broker I want to contact my clients directly so that I can give better offers and negotiate and sell policies.
Retinodes	As a retinodes company I want to see clients details of my client company.
User	As a User , I want to create my own package and send a request for its review to get suggestions and best pricing for my package.
R & D organization	As a R&D organization, I want to add, modify and delete insurance packages.

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MoSCoW Method of Prioritization -

This method uses four priority groups: MUST have, SHOULD have, COULD have, and WON'T have. With this technique, stakeholders can prioritise requirements in a collaborative fashion. The acronym represents the following:

- MUST (Mandatory)
- SHOULD (Of high priority)
- COULD (Preferred but not necessary)
- WON'T (Can be postponed and suggested for future execution)

Here, we prioritize features using MoSCoW method -

MUST -

- Comparing price, suggest own package and give the price
- The system has to automatically analyze the package, provide suggestions (if any), and at last give a competing price for the package.
- Retinodes company should be able to see their client details
- Customers should be able to view all the policies regarding all kinds of insurances (life, motor, health, etc) available.
- About the LIC firm, so that customers can view the firm. To check whether it is reliable or not.
- As an insurance company I should be able to display current market packages so that customers can compare our packages to others and see the best.

SHOULD -

- Helpline number for any kind of assistance required during the process of buying an insurance for the customers.
- As a company employee of LIC, I should be able to view all the policyholders that comes under this employee
- As a customer I would want to be able to have the best premium value so that my future is secured and money is invested properly.

COULD -

- Customer feedbacks from the clients of the LIC company
- Insurance policies for NRI customers
- Bring in the accounts for agents, who can book/buy insurance for their clients.
- As a customer, I should want the system to be available all the time, so I can use it whenever I want it.
- As an insurance company, I must want my customers to be able to suggest ideas for packages so that we get good ideas as well as customer satisfaction.

WON'T -

- The system should be Cashless and customers can do their e KYC on their own.
- As an insurance taker, I should be able to get my insurance update on my mobile.
- As a customer I should be able to view suggestions and competitive curated packages supplied by the website itself.

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

   Market facing technologies provide an ease of access to users which were potentially unavailable to them in the traditional ways implemented by these insurance companies. While a large amount of complicated documentation is required for a simple task of provisioning resources to a client is unproductive for the firms themselves, these technologies further smooths the whole process by automating some mundane tasks. State of the art technologies not only speeds up the process but also affects the consumer directly by intelligent advertisement systems and understanding the need of consumers.

   Some of the useful technologies for this project are :

   Predictive Analytics:
   It helps in studying the customer behavior and it can be utilized to improve accuracy of data. It can be used for pricing and risk analysis of policies.

   Artificial Intelligence:
   This technology can help in providing personalized experience to the customer. The key is to use AI's capabilities to leverage the massive amounts of consumer data available to create personalized experiences based on an individual's behavior and habits.

   Machine learning:
   Machine learning can be used to automate claim processing. It can also be used to make chatbots/assistants. A good machine learning based model for user curated packages and suggested packages would be helpful to the users to get the packages of their choice and will help increase the sales of the company.

   Insurtech:
   Insurtech is a technology designed to enhance the operations of insurance firms and the insurance industry as a whole.

   Human-Computer Interaction :
   A better UI with attractive offers that provide proper information to the customers which do not seem overwhelming can be implemented.

- Besides above mentioned technologies, one can use content management systems, Email Marketing, Social-Media marketing can be used to lure more and more customers.

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.

A Lean Six Sigma framework - This framework focuses on customer priorities .It manages , analyses , improves and controls current issues . It can improve performance by systematically removing waste and reducing variation. This increase in performance and decrease in process variation helps lead to defect reduction and improvement in profits, employee morale, and quality of products or services.

Techniques for Requirement Engineering :

1) Market Research
2) Interviewing based on cognitive profiles
3) Email Marketing, Social-media Marketing
4) Customer Experience Software
5) Marketing Attribution Software
6) Case scenarios

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

Feature : Insurance approval directly through the client side requiring absolutely no interaction with the broker and no physical signing of the necessary documents.

Issue : Such a feature is infeasible as a lot of verification needs to take part in person and no insurance policies can be issued online without signing the terms and conditions as well as verifying the identity of the consumer.

Feature : Providing a more affordable package to a certain policy to encourage the user to buy the policy.

Issue : This might not be feasible as the insurance company might incur heavy losses if it resorts to this practice

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.

The major reason behind this defect might be when the system is analysing the package the customer has created. After this, the system is supposed to provide suggestions based on the preexisting packages, the problem would occur when there are no preexisting packages to suggest to a customer.

To solve this problem, we will require engineers to remove the problem during the testing phase of the application. Proper testing will remove all the glitches and defects and the team would provide necessary changes if required.

6. Identify three different use cases where the conflicts between the requirements occur? Do you think that the conflicts can be resolved? How?

1) Conflict can occur when there is a difference of price for the package selected by the customer. The customer has a feature to create its own package , selecting functionalities of the package on the basis of his choices. He/She might not require all the functionalities that were included in the pre-defined package. So , the system should be able to calculate the price of the package on the basis of its functionalities . If there occurs a defect in the calculating price, this issue could remain unresolved.
2) Conflict can also occur when some package is suggesting a different price for the same feature. It may happen that other companies suggest different prices for the same package with the same functionalities. So companies should suggest prices based on some standardized basis package.
3) If users create one package and system of LIC give it to the price according to it then this price should match with the packages which is identically the same with the user created package and already involved in the system. If price is not matched then there can be conflict. This can be solved by giving proper price distribution techniques.

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.

Non functional Aspects:

- ➢ The system should have secure authentication during login to prevent any malicious activities
- ➢ The system should have a reliable and secure transaction platform for payment
- ➢ The system should be available to users and agents for 24 hours.
- ➢ Changes to all the policies should be reflected in real time
- ➢ Customer data should not be leaked

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?

Open Issues : Real time changes to the policies of others firms can not be accounted for while comparing the policies to present to the consumers

Resolution : We can keep updating the results at certain time intervals and no policy can be bought during that time frame.