

## Software Engineering Case Based Learning Exercise

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**Objective:** To facilitate the concepts of understanding the problem domain, requirement elicitation and prioritization through real world case.

**Topic covered in the class to undertake the study:** Requirement Elicitation Techniques, Requirement Analysis, Requirement Prioritization Techniques, Concept Mapping, Use cases and user stories.

### LIC Market-Driven System

LIC, an insurance company wants to digitize a range of business processes and provide a complete solution that addresses all aspects of the agent-insurer relationship. Consider yourself as a part of Requirement Analyst team at Retinodes Software Company, and your job is to gather and prioritize the set of requirements. In this new requirement of the project, there are no existing systems that can be analyzed for the development. Requirements have to be gathered, negotiated, validated and prioritized through multiple stakeholders which is a complex process because all stakeholders have different perspectives, requirements and priorities. Therefore, Retinodes want to have a requirements engineering framework that can be used in market-facing projects. To start with, you need to identify the set of stakeholders associated with the system, the domain information about the insurance market, and possible features. The first product LIC wanted you to develop consolidated insurance packages which can compete with the packages provided by other insurance companies. Another product is based on the customer priority, based on the insurance policies available the customer can create his/her own package and send a request for the review. The system have to automatically analyze the package, provide suggestions (if any), and at last give a competing price for the package. To understand the problem domain, existing packages has to be analyzed and the demands and restrictions from the insurance policy and agents have to be understood completely. The requirements and feasibility report generated by you, will further used by the development team for implementation.

### Questions:

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.
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?
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.
4. List out the possible features those are not feasible to consider. Can you provide justification for each of them in detail?
5. Let us assume that the customized package developed by the customer (using your second product) is similar as the package available in your pre-defined package. What is the possible reason behind this

defect? How it can be ensured that this would not happen? In which requirements engineering activity, this defect can be handled? Please provide a scenario to justify.

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

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.

8. Can there be 'Open Issues'- issues those are identified but not taken care of? If yes, what are they? Is there some alternative ways for their resolution, such that no requirements conflict will happen?

**Additional Question:**

How do the requirements of the similar systems (other similar applications) match with the system under study here?