

How To Test Insurance Domain Application

➤ Insurance Domain Overview

The Insurance industry is widely categorized into different sectors like Life Insurance, Automobile Insurance, Property Insurance, Health Insurance, etc.

On the other hand, there are some complex functionalities involved like Policy Administration, Claim, Underwriting, etc., which make the Insurance domain much different from the other domains.

Software Testing is a very crucial one for an insurance application. Testing proves whether an application is fit for use or not and it performs end to end flow from creating a new policy till the final claim settlement.

All the insurance companies are maintaining IT infrastructure and are considering that they have also made an investment to ensure whether their application runs successfully in the real-time or not.

Testing proves the robustness of an application and hence insurance testing is a most significant one.

➤ Importance of Insurance Application Testing

Nowadays, the Insurance industry is widely spread across various areas like Life, Car, Health, Property, etc. With such a wide range of coverage, they have several software or products as per the end-user needs. At times, there are chances for the same insurance product to move well quickly in one part of the country and move slowly in some other parts of the same country.

With such a huge variation, insurance companies consider the demands of their local customers and create products according to their needs.

Now testing becomes a complex task when there is such a requirement where the product features vary ultimately across the same country. So testing an insurance domain application is necessary to ensure if the insurance product is as per the local customer requirements or not.

In this current digital world, each insurance company uses different technologies to maintain their software which in turn will help them to reduce the cost and improve their customer satisfaction. Insurance companies also spend money to keep their customer's data safe and secure. Thus several Insurance companies have even started to show their footprint through mobile applications.

➤ Insurance Framework (Module)

The insurance industry is widely divided into various sub-industries like **Life, Auto, Property, and Health** etc. Each sub-industry has different functional areas and modules to be tested.

Different Modules to Test an Insurance Application

Each insurance company is spread across different business areas like Policy Administration, Underwriting, Claim Management System etc. Each area has its own process and standards to be followed. In this section, we will learn about a few important areas which are critical while testing any insurance application.

➤ Testing of Claim System

The Claim Administrator software simplifies the claim process for the insurance company and it is also called as “Claim Management System”. These claim management software’s start their workflow from initiation of claim till the final claim settlement.

Claim admin systems help to reduce the cost for the company by using different techniques, tools and removes manual process thereby reducing manual errors etc.

Testing of Claim System involves:

- Claim Life Cycle
- Claim assessment
- Claim processing and transaction
- Policy surrender processing
- Maturity processing
- Payout set-up

➤ Testing Policy Admin System:

The name itself says that it is an admin system for policies management. Customer personal details and their associated coverage details are stored in this policy admin system. As it involves various functionalities for testing, this is considered to be the crucial part of testing.

Few functionalities are listed below:

- Policy workflows or policy Life Cycle
- Financial and non-financial transactions
- Document management and processing
- Coverage change
- Premium due date alert
- Cancellation, renewals of policies
- Modification of customer personal details
- Policy lapse processing

➤ Testing of Underwriting Module:

When a person decides to buy a policy, it is the underwriter’s job to assess the risk associated with the person before accepting the application. Underwriting is a risk assessment process in the insurance company which allows the company to evaluate the risk and decides the premium for the insured person accordingly.

Underwriting module mainly includes testing of:

- Complex Business Rules
- Rating efficiency
- Underwriting quality
- Check medical history
- Check driving history

➤ **Testing of New Business Administration:**

Risk Management plays a key role in the success of any insurance company.

From the testing perspective the following pointers are to be considered while testing:

- Quick and detailed quote to their customers.
- Provide benefit details to the customer.
- Check the rate system structure of the competitors.
- Batch Job schedule and run.

➤ **Testing of Policy Quote System:**

It is always necessary to provide an initial quote to the customer as per their requirements. There are different types of customer's and they require different coverage, so it is necessary to go through testing of Policy Quote System.

Following are the important points to be remembered while testing a Policy Quote System:

- Validate the rate structure which helps in generating a quote.
- Validate the plans according to the customer's needs.
- Verify the policy effective date.

➤ **Test end to end Insurance Application: -**

You need to validate the below points while testing any insurance application:

- Quote gets generated and the customer accepts those quotes.
- Policy Number is generated with an appropriate plan in it.
- All personal details and policy details are updated in the Policy Admin System.
- Members and their dependents are enrolled under the respective policy.
- An appropriate commission is generated in the system.
- Brokers must be able to view their customer's information through the front end application.
- Customers must be able to view and modify their details through the online portal.

Think from the Business Perspective:

Understand the insurance business and test the end-to-end flow correctly. You need to go beyond your limits and think **"out of the box"** to identify the defects.

Think from the end-user point of view and test the application. You need to be very attentive while testing because if a change in any number, date, enrollment details are modified on one screen then it will reflect accordingly on the other screens as well.

➤ Automation Testing in Insurance Domain

Given below are the 3 parts to automate an insurance application or software:

- Creation of automation framework
- Writing business test scenarios
- Assessing the testing state of the software

Key benefits of Test automation of an Insurance application:

- **Consistency:** Continuous testing is required to ensure whether the application is working even after modification of the functionalities or not. It is possible with the help of automation testing which runs a test suite without manual errors.
- **Re-usability:** Automation tests make a test reusable and reduce the cost.
- Reduces cost and speeds up the time to market
- Automation becomes highly scalable and is easy to maintain.

Challenges in an Insurance Application Testing

Insurance application is a complex and critical one, and there are various challenges involved during application testing in insurance domain.

Let us quickly understand challenges:

- **People:** Many organizations have a lack of testers with knowledge in the insurance domain. Domain knowledge is very important from an end-to-end perspective as they will be aware of all the business processes.
- **Processes:** Quality processes and best practices help any project in its successful implementation. Ignoring such processes and practices may cost a huge for the project. Many organizations having lack of best practices and processes may tend to fail.
- **Technology:** Different tools and technologies help to reduce the overall cost of the project and in today's digital world it may not be possible for every project to implement these tools and technology. There are various reasons behind it such as the cost of a tool, knowledge of the technology or tool etc.
- **Regulatory and Compliance:** As new technologies are emerging, the rules and regulations for an insurance industry are also revised accordingly. In some cases, there are some complex rules which may even hamper the quality testing of an application.
- **Competition:** On-time delivery and minimum cost are the key factors to retain the clients and their satisfaction. Emerging technology and providing "new or additional" benefits to the customers along with the project delivery will make you stay ahead in the market competition.
- **Time:** In each testing phase, an application should be available in the correct time for testing so that every testing team will get sufficient time to test an application thoroughly.

➤ Test Scenarios for Insurance Application Testing

- Verify if the customer is able to enroll in the policy benefits successfully.
- Verify if the system allows modifying the existing policy for the addition of new coverage or plan.
- Verify if the system is able to modify or update the customer's personal details.
- The system should be able to cancel the policy.
- Verify if the Agent's commission is calculated correctly.
- Verify that when the payment is made more than the amount to be paid then the extra amount should be reverted back to the customer.
- Verify if the system is able to process the payment using NEFT, Cheque method, etc.
- Verify if the process of annuitant change is completed successfully.
- Verify if a New Payee is successfully updated in the system.
- Verify if any error message is displayed while adding incorrect rider code in the policy.
- Verify if the Riders are added successfully to the existing policy.
- Verify if the member enrollment is processed successfully for a policy.
- Verify if the rates are generated as per the policy plan and structure.
- Verify if the policy generated in the Agent system is automatically available in the quoting system.
- Verify if the Policy amendment is processed successfully.
- Verify the In force Coverage on the policy.
- Verify if the Policy can be searched using the Policy number or the Policy Name.
- Verify if Policy renewal is processed successfully as per the customer's request.
- Verify if the Proposal is generated successfully for the associated policy plans and sent to the policyholder.
- Verify if the claim is processed successfully.
- Verify if the Policy effective date is updated by adding a new plan.

➤ Test Cases for an Insurance Application

| Step No | Description | Expected Result |
|---------|---|--|
| Step 1 | On confirmation from the customer, verify if the insurance agent can generate an initial proposal into the system | Initial proposal should be generated as per the customer request. |
| Step 2 | Initial "Case" is generated and it navigates to the underwriting system and Quoting system | The proposal should navigate to quote system in order to generate the policy |
| Step 3 | Policy generated successfully with the correct effective date and policy plan as per the customer requirements | After appropriate risk calculation, Policy Number should be generated for the customer |
| Step 4 | Verify if the Policy is forwarded to the Admin system from the underwriting and Quoting system | Admin System should now have the policy number and its associated plans |
| Step 5 | Verify that all the members, dependents and their details is updated in the enrollment system along with the policy details | Enrollment system gets updated with the policy details |
| Step 6 | Verify that these details are forwarded to the Admin System successfully | Now Admin System should have all the personal details of the Policyholder along with the associated policy and plans |
| Step 7 | Admin system verifies all the details and | Commission System should be updated with the |

| Step No | Description | Expected Result |
|---------|---|--|
| | calculates the agent commission and is forwarded to the Commission system | commission of agent/broker |
| Step 8 | Verify if the policy document and premium details along with all the terms and conditions are generated | All documents should be generated and sent to the policyholder's address |
| Step 9 | Verify if the personal details are modified successfully even after policy enrollment | After the policy enrollment the personal details should get updated |
| Step 10 | Verify that new benefits or plans can be added/removed/modified successfully | New plan should get added/removed/updated successfully in the existing policy |
| Step 11 | Verify that effective date of the policy is updated correctly after a modification in the existing policy | Upon modification of the existing policy, effective date should get updated correctly |
| Step 12 | Verify if the claim request is accepted upon appropriate verification | Claim request should be accepted successfully and transferred to the associated sub-system |
| Step 13 | Verify if the claim is processed successfully and the payment is made to the appropriate beneficiary/policyholder | Policyholder/beneficiary should be credited with the claim amount |
| Step 14 | Test ends | |