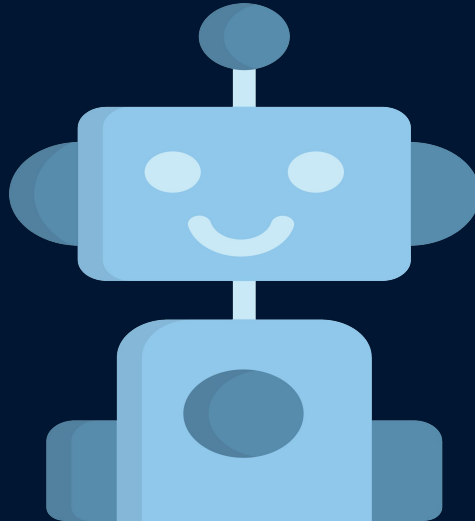


Automated Insurance Quotation Bot Using Rasa



By Quotation Quokkas

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“The future belongs to those who can harness technology to anticipate and meet the needs of tomorrow's customer.”

— Quotation Quokkas

Outline

1. Objective and Target Users
2. Benefits
3. Project Goals and Key Requirements
4. Bot Design and Architecture
5. Insurance Premium Calculations Logic
6. Challenges and Solutions
7. Results and Impact
8. Planned Features for Advanced Bot Capabilities
9. PDF upload & Quotation Generation



Objective

To automate premium quotations for insurance claims using a conversational AI built with Rasa

Target Users

Insurance underwriters and brokers seeking quick premium estimates.

Benefits



Streamlined
customer service.



Increased efficiency
in handling
insurance queries.



24/7 availability for
quick premium
calculations.

Project Goals and Key Requirements

Project Goal

- To develop a chatbot that automates the underwriting process for facultative insurance quotations

Key Requirements

- Extract, validate, and analyze user input.
- Calculate insurance premiums, fees, and indemnities.
- Generate quotations.

Bot Design and Architecture



NLU Models:

Designed to identify user intent and extract key details, and optimize entity recognition to ensure smooth conversation flow.



Actions:

Custom actions for premium calculation logic.



Forms:

Collects specific data such as business profession, staffing information and indemnity amount.



Backend Logic:

Premium calculation logic based on conditions, fee ranges, and professional categories.

Insurance Premium Calculation Logic

Annual Fees

Variable percentage rates based on revenue brackets.

Staff Fees

Rates applied for partners, qualified assistants, and other staff.

Profession Fees

Customized percentage rates based on professions.

Limit of Indemnity Calculation

Scaling based on indemnity limits.

Levies

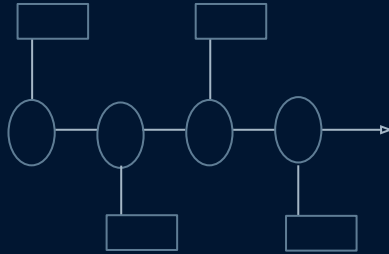
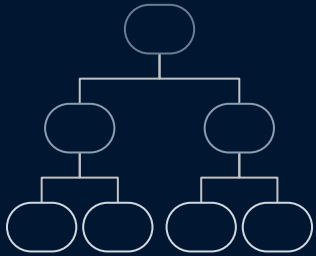
Small percentage added to the insurance premium used to maintain stability within the industry.



Challenges and Solutions

Handling Data Validation:

Implemented slot mapping and type validation to ensure accurate premium calculations.

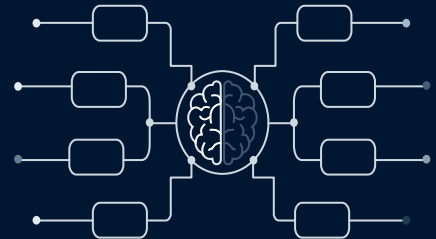


Complex Calculation Logic:

Divided into manageable functions for each component (fees, employee charges, etc.)

Contradicting Rules:

Resolved by streamlining rule and story interactions in Rasa.



Results and Impact

Accuracy of Premium Calculations:

Reliable estimates based on various user scenarios.



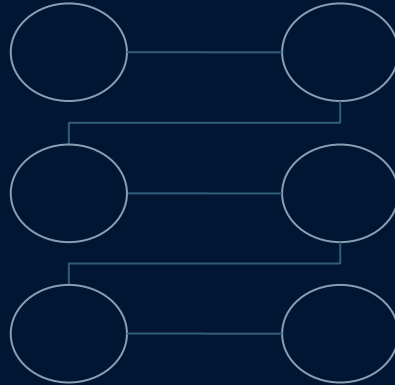
Customer Feedback:

Positive responses due to efficiency and user-friendly design.

Reduction in Manual Processing:

Significantly reduced the workload for insurance agents.

Planned Features for Advanced Bot Capabilities

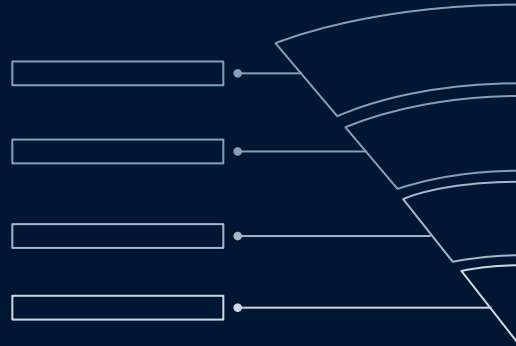


Improved Integration with Backend Systems

Synchronization with internal databases and systems for up-to-date client information and policy status, ensuring accurate and real-time quotations.

Enhanced NLP for Complex Queries

Expansion to cover more complex user queries and scenarios, including nuanced policy questions and specific coverage requirements.



PDF Upload & Quotation Generation

Automated Proposal Processing:

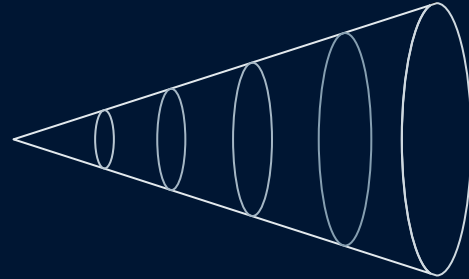
The bot will be designed to accept uploaded PDF proposal forms directly from clients.

Automated PDF Quotation Generation:

Based on extracted data, the bot will generate a tailored insurance premium quotation as a PDF, offering clients a seamless, end-to-end digital experience.

Advanced Rating Guide Integration:

Using a standardized rating guide, the bot will extract and analyze key information from the proposals.





**THANK YOU
SO MUCH**

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