Robi Axiata Ltd. AI Customer Service and Recommendation System Guide

Table of Contents

---

1. Introduction

Welcome to the comprehensive guide for Robi Axiata Ltd.'s AI-powered Customer Service and Recommendation System. This document is designed to provide detailed information and guidelines to facilitate the development of a robust Retrieval-Augmented Generation (RAG) system using FAISS for efficient information retrieval and customer interaction.

Our AI system aims to enhance customer experience by offering personalized internet package recommendations based on real-time usage, task requirements, and weekly usage patterns.

Additionally, it addresses common user problems with effective solutions, ensuring seamless internet connectivity and satisfaction.

---

2. Robi Axiata Ltd. Internet Packages

Robi Axiata Ltd. offers a variety of internet packages tailored to meet the diverse needs of its customers. The packages vary in data volume, validity period, and price to provide flexibility and affordability.

2.1 Package Details

Below is a detailed list of all available internet packages offered by Robi Axiata Ltd.:

Package Name	Data Volume	Validity	Price (BDT)
50 GB + 1000 Minutes	50 GB	15 Days	949
50 GB + 1000 Minutes	50 GB	30 Days	998
50 GB	50 GB	15 Days	469
50 GB	50 GB	30 Days	698
45 GB	45 GB	30 Days	598
50 GB	50 GB	15 Days	469
50 GB	50 GB	30 Days	698
50 GB	50 GB	30 Days	649
50 GB + 1000 Minutes	50 GB	30 Days	998
50 GB + 1000 Minutes	50 GB	15 Days	949
50 GB + 1000 Minutes	50 GB	30 Days	998
50 GB	50 GB	15 Days	469
50 GB	50 GB	30 Days	698
45 GB	45 GB	30 Days	598
50 GB	50 GB	15 Days	469
50 GB	50 GB	30 Days	698
50 GB	50 GB	30 Days	649
50 GB + 1000 Minutes	50 GB	30 Days	998
50 GB + 1000 Minutes	50 GB	15 Days	949
50 GB + 1000 Minutes	50 GB	30 Days	998
50 GB	50 GB	15 Days	469
50 GB	50 GB	30 Days	698
45 GB	45 GB	30 Days	598
50 GB	50 GB	15 Days	469

Package Name	Data Volume	Validity	Price (BDT)
50 GB	50 GB	30 Days	698
50 GB	50 GB	30 Days	649
50 GB + 1000 Minutes	50 GB	30 Days	998
50 GB + 1000 Minutes	50 GB	15 Days	949
50 GB + 1000 Minutes	50 GB	30 Days	998
50 GB	50 GB	15 Days	469
50 GB	50 GB	30 Days	698
45 GB	45 GB	30 Days	598
50 GB	50 GB	15 Days	469
50 GB	50 GB	30 Days	698

```
   *Note: The list above contains all unique offerings. Some packages may
appear multiple times with identical specifications.*
```

2.2 Package Comparison

To assist in selecting the most suitable package, below is a comparison table highlighting the key features of each package:

Package Type	Data Volume	Validity	Price (BDT)	Minutes Included
Basic 15 Days	50 GB	15 Days	469	None
Basic 30 Days	50 GB	30 Days	698	None
Basic 30 Days Discount	45 GB	30 Days	598	None
Extended 30 Days	50 GB	30 Days	649	None
Premium 15 Days	50 GB	15 Days	949	1000 Minutes
Premium 30 Days	50 GB	30 Days	998	1000 Minutes

Summary:

- **Basic Packages:** Offer 50 GB data with varying validity periods (15 or 30 days) at affordable prices, suitable for general browsing and light usage.
- **Premium Packages:** Include both data and voice minutes (1000 minutes), ideal for users who require both internet and voice services.
- **Discounted Packages:** Provide slightly less data (45 GB) at a reduced price, catering to budget-conscious users.

3. Task-Based Package Recommendations

The AI system is designed to recommend the most suitable internet package to users based on the specific tasks they are performing and the data required to complete these tasks. This ensures that users have adequate data to continue their activities without interruption.

3.1 Estimating Data Requirements

To effectively recommend the appropriate package, the system must estimate the data required to complete a given task. Below are common tasks and their estimated data consumption:

Task	Description	Estimated Data Usage
Web Browsing	General surfing, reading articles, social media use	150 MB/hour
Video Streaming	Watching videos on platforms like YouTube, Netflix	1 GB/hour (Standard Quality)
Video Conferencing	Participating in video calls or webinars	500 MB/hour
Online Gaming	Playing online multiplayer games	100 MB/hour
Downloading Files	Downloading documents, software updates	Varies by file size
Uploading Content	Uploading photos, videos, or documents	Varies by file size
Music Streaming	Listening to music on platforms like Spotify	100 MB/hour
Social Media Usage	Active engagement on platforms like Facebook, Instagram	200 MB/hour

Note: Data usage estimates are approximate and may vary based on specific applications and usage intensity.

3.2 Recommendation Algorithm

The AI recommendation system follows a systematic approach to suggest the most appropriate internet package:

1. **Input Collection:**
   - **Task Description:** User provides the nature of the task they are performing.
   - **Task Length:** Estimated duration of the task (in hours).
2. **Data Calculation:**
   - **Estimated Data Usage:** Calculate the total data required based on the task type and duration using predefined data consumption metrics.
3. **Package Matching:**
   - **Current Package Status:** Assess the remaining data in the user's current package.
   - **Data Gap Analysis:** Determine if the remaining data is insufficient for the ongoing task.
4. **Recommendation Generation:**

- o **Best Fit Package:** Identify the cheapest package that covers the additional data required.
- o **Alternative Options:** Provide a list of alternative packages sorted by price and data volume.

3.3 Implementation Steps

To implement the task-based recommendation feature, follow these steps:

1. **User Input Interface:**
   - o Design a prompt for users to input their current task and its estimated duration.
   - o Example Prompt: "Please describe the task you are performing and its expected duration."
2. **Data Usage Estimation Module:**
   - o Develop a module that maps task descriptions to estimated data usage.
   - o Utilize the data consumption metrics provided in Section 3.1.
3. **Current Package Monitoring:**
   - o Integrate with Robi's system to monitor the user's current package status, including remaining data and validity.
4. **Recommendation Logic:**
   - o Create an algorithm that compares the estimated data usage with the remaining data.
   - o Select the most cost-effective package that fulfills the data requirement.
5. **Output Presentation:**
   - o Display the recommended package along with alternative options.
   - o Ensure recommendations are sorted from the cheapest to the most expensive.
6. **User Feedback Mechanism:**
   - o Allow users to provide feedback on the recommendations to improve the system's accuracy over time.

---

4. Weekly Internet Usage Tracking and Recommendations

Understanding users' weekly internet usage patterns allows the AI system to provide personalized package recommendations that align with their typical consumption habits.

4.1 Usage Tracking Mechanism

The system tracks the following aspects of the user's internet usage on a weekly basis:

- **Total Data Consumed:** Aggregate data usage across all tasks.
- **Task Types:** Breakdown of different activities (e.g., streaming, browsing, gaming).
- **Peak Usage Times:** Identifying when data consumption is highest.
- **Data Consumption Trends:** Monitoring increases or decreases in usage over time.

4.2 Analyzing Usage Patterns

By analyzing the collected data, the system identifies patterns that inform package recommendations:

1. **High Data Consumption Activities:**
   o Frequent video streaming or large file downloads indicate a need for higher data packages.
2. **Consistent Usage:**
   o Regular daily internet use suggests stability in data needs, allowing for longer validity packages.
3. **Variable Usage:**
   o Fluctuating data consumption may benefit from flexible packages that can be adjusted based on current needs.
4. **Peak Usage Insights:**
   o Identifying peak usage periods can help in recommending packages that offer better performance during those times.

4.3 Personalized Package Suggestions

Based on the analysis, the AI system suggests packages that best fit the user's weekly usage patterns:

1. **High Usage Users:**
   o **Recommended Packages:**
      - **Premium 30 Days:** 50 GB + 1000 Minutes for 998 BDT
      - **Basic 30 Days:** 50 GB for 698 BDT
   o **Rationale:** Ensures ample data for intensive activities and longer validity reduces the frequency of recharging.
2. **Moderate Usage Users:**
   o **Recommended Packages:**
      - **Basic 30 Days:** 50 GB for 698 BDT
      - **Extended 30 Days:** 50 GB for 649 BDT
   o **Rationale:** Balances cost with sufficient data for regular internet activities.
3. **Low Usage Users:**
   o **Recommended Packages:**
      - **Basic 15 Days:** 50 GB for 469 BDT
      - **Premium 15 Days:** 50 GB + 1000 Minutes for 949 BDT
   o **Rationale:** Provides necessary data at a lower cost for infrequent users.
4. **Flexible Users:**
   o **Recommended Packages:**
      - **Extended 30 Days:** 50 GB for 649 BDT
      - **Premium 30 Days:** 50 GB + 1000 Minutes for 998 BDT
   o **Rationale:** Offers flexibility in data usage with options to upgrade if needed.

5. Common Problems and Solutions

Despite robust infrastructure, users may occasionally encounter issues affecting their internet experience. This section outlines common problems and provides effective solutions.

5.1 Low Network Connection

Symptoms:

- Slow internet speeds
- Frequent disconnections
- Difficulty loading web pages or streaming content

Causes:

- Network congestion during peak hours
- Physical obstructions or distance from the nearest cell tower
- Device-related issues

Solutions:

1. **Check Network Status:**
   - Verify if there is a network outage in your area by contacting Robi customer service or checking online platforms.
2. **Optimize Device Placement:**
   - Move closer to windows or open spaces to improve signal strength.
   - Avoid physical obstructions like walls or large metal objects.
3. **Restart Your Device:**
   - Power off your device, wait for 30 seconds, and then power it back on to refresh the network connection.
4. **Switch Network Modes:**
   - Toggle between 4G and 3G modes to find a more stable connection.
5. **Update Device Software:**
   - Ensure your device's operating system and network settings are up to date.
6. **Use Wi-Fi Calling:**
   - If available, enable Wi-Fi calling to maintain connectivity in areas with poor mobile network coverage.

5.2 Slow Internet Speed

Symptoms:

- Delayed loading of web pages
- Buffering during video streaming
- Lag during online gaming

Causes:

- High data usage exceeding the package limit
- Network congestion
- Background applications consuming bandwidth

Solutions:

1. **Monitor Data Usage:**
    - Check your current data consumption to ensure you haven't exceeded your package limit.
2. **Limit Background Data:**
    - Close unnecessary applications running in the background that may consume bandwidth.
3. **Clear Cache:**
    - Regularly clear your browser and app caches to enhance performance.
4. **Change DNS Settings:**
    - Switching to a faster DNS server (e.g., Google DNS: 8.8.8.8 and 8.8.4.4) can improve loading times.
5. **Upgrade Your Package:**
    - Consider upgrading to a higher data package if consistent high usage is required.
6. **Contact Customer Support:**
    - Reach out to Robi's support team for assistance if the issue persists.

5.3 Billing Issues

Symptoms:

- Incorrect billing amounts
- Unexplained charges
- Delayed bill generation

Causes:

- System errors
- Unauthorized usage
- Delays in bill processing

Solutions:

1. **Review Your Bill:**
    - Examine your latest bill for any discrepancies or unfamiliar charges.
2. **Check for Unauthorized Usage:**
    - Ensure that all charges correspond to your actual usage and authorized services.
3. **Contact Customer Service:**

- o   Reach out to Robi's billing department to report and resolve any billing discrepancies.
4. **Update Payment Information:**
   - o   Ensure that your payment details are up to date to avoid delayed or failed transactions.
5. **Set Up Alerts:**
   - o   Enable billing alerts to stay informed about upcoming charges and payment deadlines.

5.4 Package Activation Problems

Symptoms:

- Inability to activate a new package
- Package not reflecting in account
- Activation errors during purchase

Causes:

- Network issues during activation
- Incorrect package codes
- System glitches

Solutions:

1. **Verify Package Code:**
   - o   Ensure that you are using the correct package code provided by Robi.
2. **Check Network Connectivity:**
   - o   Make sure you have a stable internet connection during the activation process.
3. **Retry Activation:**
   - o   Attempt to activate the package again after a few minutes in case of temporary system issues.
4. **Use Alternative Methods:**
   - o   Try activating the package via Robi's official app or website if mobile USSD fails.
5. **Contact Support:**
   - o   If activation issues persist, reach out to Robi's customer support for assistance.

---

6. User Demographics and Targeting

Understanding the target demographic is crucial for tailoring recommendations and ensuring that the AI system meets user expectations effectively.

6.1 Understanding the Young Generation

The young generation, typically encompassing individuals aged between 15 to 30 years, exhibits distinct internet usage behaviors and preferences:

- **High Connectivity Needs:**
  - Frequent use of social media, streaming services, online gaming, and content creation platforms.
- **Mobility:**
  - Preference for mobile internet solutions due to active lifestyles and constant movement.
- **Tech-Savvy:**
  - Familiarity with various digital tools and platforms, expecting seamless and efficient services.
- **Budget-Conscious:**
  - Seeking affordable packages that offer good value for money without compromising on data needs.
- **Preference for Flexibility:**
  - Favoring packages that can adapt to varying usage patterns and provide options for customization.

6.2 Tailoring Recommendations

To effectively cater to the young generation, the AI system incorporates the following strategies:

1. **Personalized Suggestions:**
   - Utilize usage data to offer packages that align with individual consumption habits and preferences.
2. **Highlighting Value:**
   - Emphasize packages that provide the best data-to-price ratio, ensuring cost-effectiveness.
3. **Flexible Options:**
   - Recommend packages with varying validity periods and data volumes to accommodate different usage scenarios.
4. **Promotional Offers:**
   - Inform users about ongoing promotions, discounts, or bundle deals that may interest the young demographic.
5. **User-Friendly Interface:**
   - Design an intuitive and engaging user interface that appeals to the tech-savvy young generation.
6. **Responsive Support:**
   - Provide swift and efficient customer support to address queries and issues promptly, enhancing user satisfaction.

7. Conclusion

Robi Axiata Ltd.'s AI Customer Service and Recommendation System is designed to revolutionize user experience by providing personalized, efficient, and reliable internet package suggestions. By leveraging real-time data analysis, task-based recommendations, and weekly usage tracking, the system ensures that users are always equipped with the most suitable packages tailored to their unique needs.

Moreover, addressing common user problems with effective solutions further enhances customer satisfaction and loyalty. Understanding the target demographic—the young generation—allows for more precise and engaging interactions, fostering a strong connection between Robi and its users.

This comprehensive guide serves as a foundational resource for developing and optimizing the RAG system, ensuring its effectiveness and reliability in meeting user expectations.

---

8. Appendices

8.1 Appendix A: Data Usage Estimates

Application/Activity	Data Consumption per Hour
Web Browsing	150 MB
Video Streaming	1 GB (Standard Quality)
Video Conferencing	500 MB
Online Gaming	100 MB
Downloading Files	Varies by file size
Uploading Content	Varies by file size
Music Streaming	100 MB
Social Media Usage	200 MB

Note: Data usage may vary based on application settings and usage intensity.

8.2 Appendix B: Package Pricing Summary

Package Name	Data Volume	Validity	Price (BDT)	Minutes Included
Basic 15 Days	50 GB	15 Days	469	None
Basic 30 Days	50 GB	30 Days	698	None
Basic 30 Days Discount	45 GB	30 Days	598	None
Extended 30 Days	50 GB	30 Days	649	None
Premium 15 Days	50 GB	15 Days	949	1000 Minutes
Premium 30 Days	50 GB	30 Days	998	1000 Minutes

8.3 Appendix C: Troubleshooting Guide

Problem	Quick Fixes	Advanced Solutions
Low Network Connection	Move to an open area, restart device, toggle network modes	Contact support if persistent
Slow Internet Speed	Limit background data, clear cache, switch DNS servers	Upgrade package or check device settings
Billing Issues	Review bill details, verify authorized usage	Contact billing support for discrepancies
Package Activation Issues	Verify package code, ensure stable connection	Use alternative activation methods or contact support

Ensure that users follow the troubleshooting steps in order to efficiently resolve common issues.

End of Document