#### **Evaluation of Coccodrillo**

The travel-focused RAG chatbot Coccodrillo demonstrates solid foundational capabilities in handling a wide array of user intents related to trip planning and real-time travel information. These intents include destination recommendations, transportation guidance, cultural and culinary tips, weather and safety alerts, and event listings. The system exhibits commendable strengths, particularly in formatting, geographic breadth, and structured information delivery. However, there are consistent issues related to personalization, content clarity, data completeness, and linguistic polish.

# **Key Strengths**

# 1. Content Coverage and Comprehensiveness

The chatbot handles diverse user intents well, from practical concerns like severe weather alerts and public transport logistics to more experiential aspects such as food recommendations and concerts. Its answers tend to be informative, with consistent formatting (e.g., use of tables, bullet points, emojis), making content digestible. For example, responses about "Recommended Places to Visit" are well-structured and include cultural landmarks tailored by trip duration.

# 2. Geographic and Temporal Adaptability

Across intents such as weather forecasts, event calendars, and restaurant recommendations, the system accurately adapts content to the requested city and time frame. For instance, event queries dynamically include nearby cities when necessary, and food recommendations are tied to local traditions and ingredients.

# 3. Structured and Friendly UX

The chatbot's outputs frequently use visually appealing formatting — like clear headers, dividers, and symbols — to support readability. This is notable in categories like "Typical Food Recommendations" and "Best Restaurants," where list structure and stylistic elements help user engagement.

#### 4. Scalability and Robustness

The assistant handles a wide range of question complexities, from vague to highly specific queries (e.g., conditional weather forecasts or food by dish type). It scales well across European geography and manages to provide fallback information when city-specific data is unavailable.

# **Areas for Improvement**

#### 1. Personalization and Contextual Relevance

Responses are mostly static and lack adaptation to user profiles or travel goals. For example, place recommendations are generic and do not reflect personal interests (e.g., art lovers vs. nature seekers). Also, there's minimal explanation of "why" certain sites or dishes are suggested, reducing engagement depth.

# 2. Data Completeness and Accuracy

Incomplete data (e.g., missing price info in restaurants, unstructured alerts for transport) hinder trust and usability. Severe weather warnings occasionally include irrelevant or outdated snippets, diluting critical information.

# 3. Content Filtering and Deduplication

In event listings and restaurant results, there is a lack of proper filtering — duplicate entries and off-topic data are common. There is also insufficient clarity around timeliness and relevance, especially in security alerts.

# 4. Interactivity and Response Design

The chatbot often fails to clarify vague queries or ask follow-up questions when user intent is unclear (e.g., missing transport details). This results in misclassified intents or empty/irrelevant responses. Improved dynamic prompting and fallback design are needed for robust dialogue management.

# Conclusion

Overall, the RAG-based travel chatbot is a capable system that delivers broad and structured travel information across multiple user intents. Its strengths lie in content formatting, intent diversity, and scalability. However, to truly serve as a next-generation travel assistant, it needs enhancements in personalization, linguistic fluency, dynamic interaction, and content relevance. Addressing these areas will elevate the user experience from informative to truly assistive and context-aware.