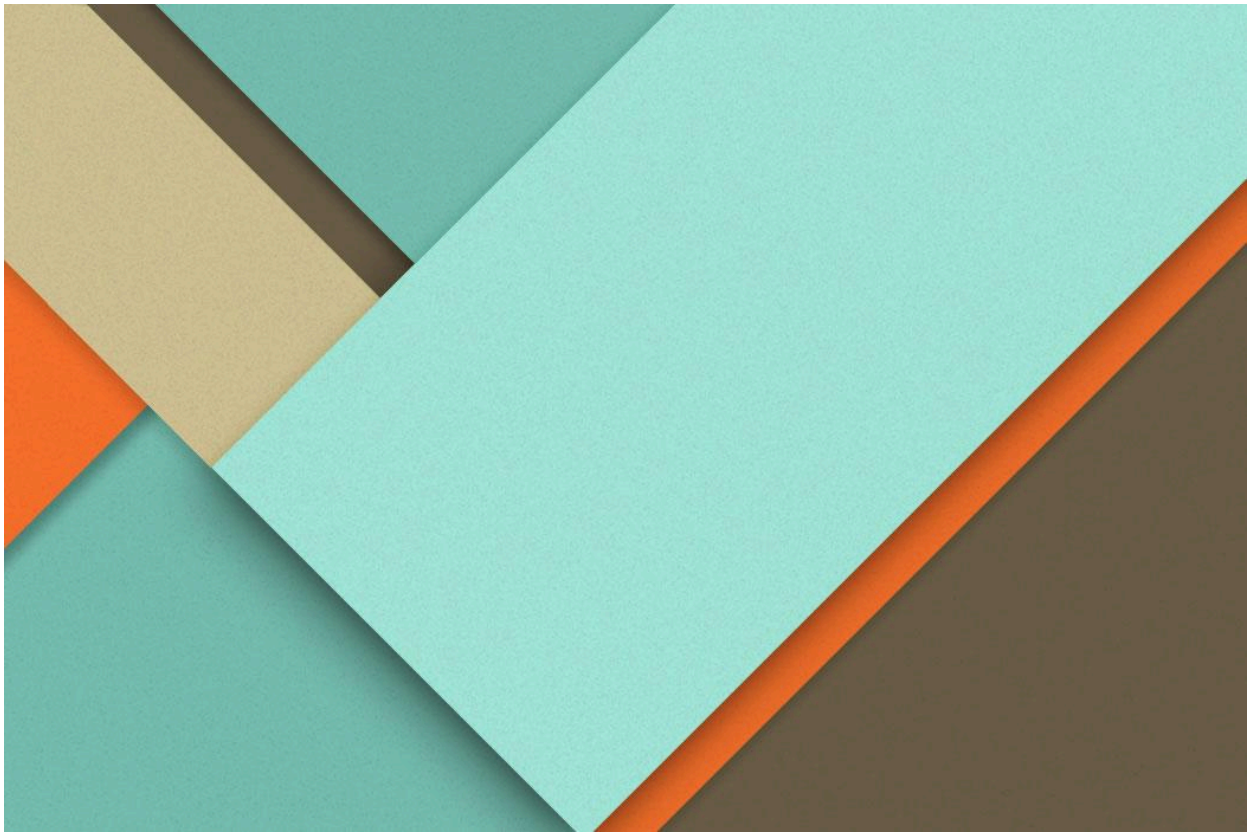

Cooki

A Personal Cooking Assistant Bot

Developed using Botpress during the 5-Day No-Code Bootcamp by InfoGerm

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Date: 22-12-2024

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1. Introduction

- Cooki is a personal cooking assistant bot designed to enhance the cooking experience by offering personalized recipe suggestions and assistance.
- Created during the InfoGerm 5-Day No-Code Bootcamp, the bot leverages Botpress, a powerful no-code platform, to provide an interactive and user-friendly experience.
- The bot's purpose is to simplify the process of finding and using recipes, making cooking more accessible and enjoyable for home cooks, culinary enthusiasts, and beginners alike. By integrating a conversational interface, Cooki aims to bring a human touch to digital cooking assistance.
- In addition, the integration of multiple agents (Translator, Personality, Summary, Knowledge, and Vision agents) helps make the bot more dynamic, responsive, and intuitive.

2. Objectives

The primary objectives of Cooki are:

- To provide personalized interaction with users through greeting and name recognition.
- To assist users in selecting or searching for recipes based on their preferences.
- To answer specific questions about recipes, ensuring clarity and convenience.

- To allow seamless transitions between multiple recipe requests.
- To create an engaging and intuitive experience for users of all cooking skill levels.
- To leverage the power of **Botpress agents** for enhanced interaction and functionality.

3. Development process

3.1 Design

The development process began with designing the bot's conversational flow. Key design considerations included:

- Greeting the user and asking for their name to establish a personalized connection.
- Offering two options: requesting a specific recipe or choosing from a categorized list of recipes.
- Providing detailed instructions for each recipe while allowing users to ask related questions.
- Enabling users to request additional recipes or end the conversation with a friendly goodbye.

To ensure a seamless interaction, the following agents were integrated:

- **Personality Agent:** Ensures Cooki responds in a friendly and engaging manner, offering personalized greetings and maintaining an approachable tone.
- **Translator Agent:** Supports multiple languages to enhance accessibility for users from different linguistic backgrounds, making Cooki global-friendly.
- **Summary Agent:** Provides concise recipe summaries for users who prefer quick access to key details, making the bot more efficient.

A knowledge base was prepared to store and retrieve recipe data efficiently, ensuring a smooth interaction. Four distinct knowledge bases were utilized:

- **Default Knowledge Base:** For lunch and snacks.
- **BKB (Breakfast Knowledge Base):** For breakfast recipes.
- **DKB (Dinner Knowledge Base):** For dinner recipes.
- **DessertKB:** For dessert recipes.

Additionally, a "search the web" option was included to fetch data beyond the predefined knowledge bases, powered by **Knowledge Agent**.

3.2 Implementation in Botpress

The implementation involved:

- **Creating Intents and Responses:**
    - Intents for greeting, asking for the user's name, and providing options.

- Responses for recipe categories and corresponding selections.
- **Personality Agent** was used to ensure warm, personalized responses.
- **Translator Agent** was integrated to make the bot multilingual.

- **Knowledge Base Integration:**
  - Recipes were stored across the four distinct knowledge bases, allowing for efficient categorization and retrieval.
  - A **Knowledge Agent** feature was added to allow Cooki to expand its capabilities by pulling recipes from the web in addition to the predefined ones.
- **Conditional Flows:**
  - Logic to handle user inputs dynamically and guide the conversation appropriately with the help of **Vision Agent**, which interprets user queries contextually for better engagement.

3.3 Deployment

Cooki was deployed on **Telegram** and integrated into the **CookBi recipe website**. This dual deployment ensured accessibility across platforms, allowing users to interact with the bot either via messaging or through the website interface. The integration also enabled easy sharing and interaction across different devices.

4. Features of Cooki

- **Greeting and Personalization:**
    - Welcomes users and asks for their name to create a personalized experience with the **Personality Agent**.
- **Recipe Selection:**
    - Offers two options:
        1. Search for a specific recipe.
        2. Choose from five categories: breakfast, lunch, dinner, snacks, and dessert.
- **Dynamic Interaction:**
    - Displays recipe options based on user selection and fetches detailed recipes from the knowledge base. **Vision Agent** helps handle more complex queries dynamically.
- **Recipe Queries:**
    - Answers user questions related to the selected recipe, ensuring clarity and usability with the help of the **Summary Agent**.
- **Multiple Requests:**
    - Allows users to request additional recipes within the same session.

- **Exit Message:**
    - Ends the session with a friendly goodbye if the user chooses not to continue, powered by **Personality Agent** to maintain a positive user experience.

5. Challenges and Solutions

5.1 Challenges Faced

- Managing a structured knowledge base for storing recipes.
- Handling edge cases, such as unrecognized user inputs or invalid selections.

5.2 Solutions Implemented

- Organized the knowledge base for efficient data retrieval.
- Incorporated fallback messages and error-handling logic with **Vision Agent** to deal with unexpected user inputs.
- Expanded the functionality of **Knowledge Agent** to search the web when a recipe is not found in the predefined databases.

6. Outcomes

The development of Cooki resulted in:

- A fully functional bot capable of guiding users through recipe selection and usage.
- Smooth and intuitive conversation flow, ensuring a positive user experience.
- Deployment on Telegram and the CookBi website, enabling accessibility across platforms.
- Insights into no-code development and the potential of Botpress agents to enhance bot functionality.

7. Future Scope

To further enhance Cooki's capabilities, the following improvements are planned:

- Expanding the knowledge base with more recipes and categories.
- Adding features to suggest recipes based on available ingredients.
- Integrating with voice-based platforms for hands-free interaction.
- Enabling integration with smart kitchen devices for real-time cooking assistance.

8. Conclusion

The creation of Cooki highlights the potential of no-code platforms like Botpress to develop practical and innovative solutions. This bot serves as a testament to how technology can simplify everyday tasks, making cooking more accessible and enjoyable for users. The integration of advanced agents—Personality, Translator, Summary, Knowledge, and Vision—has helped Cooki provide a dynamic and highly engaging user experience. The experience has been both educational and rewarding, showcasing the power of conversational AI in enhancing user interaction.

9. Appendices

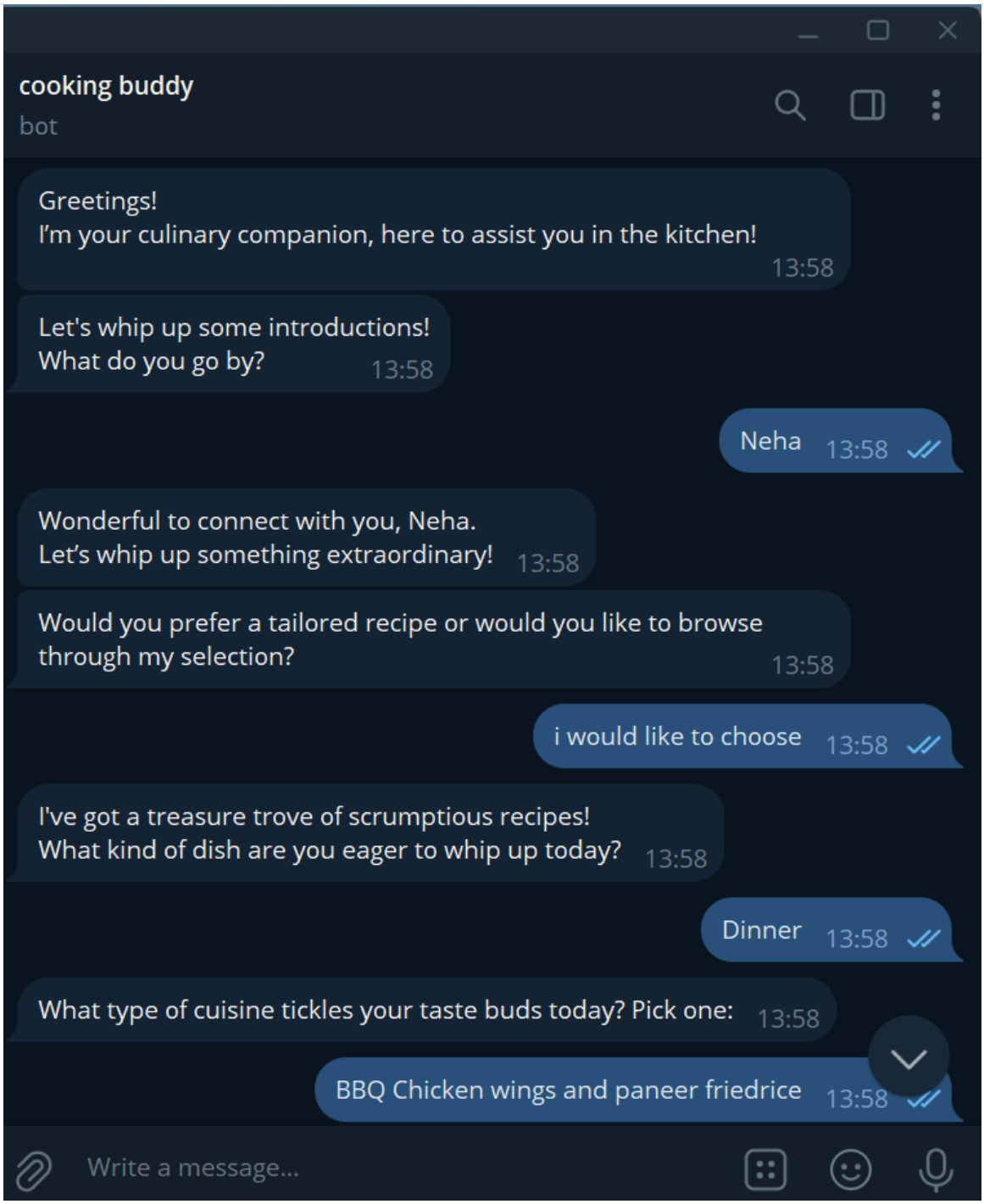
Screenshots

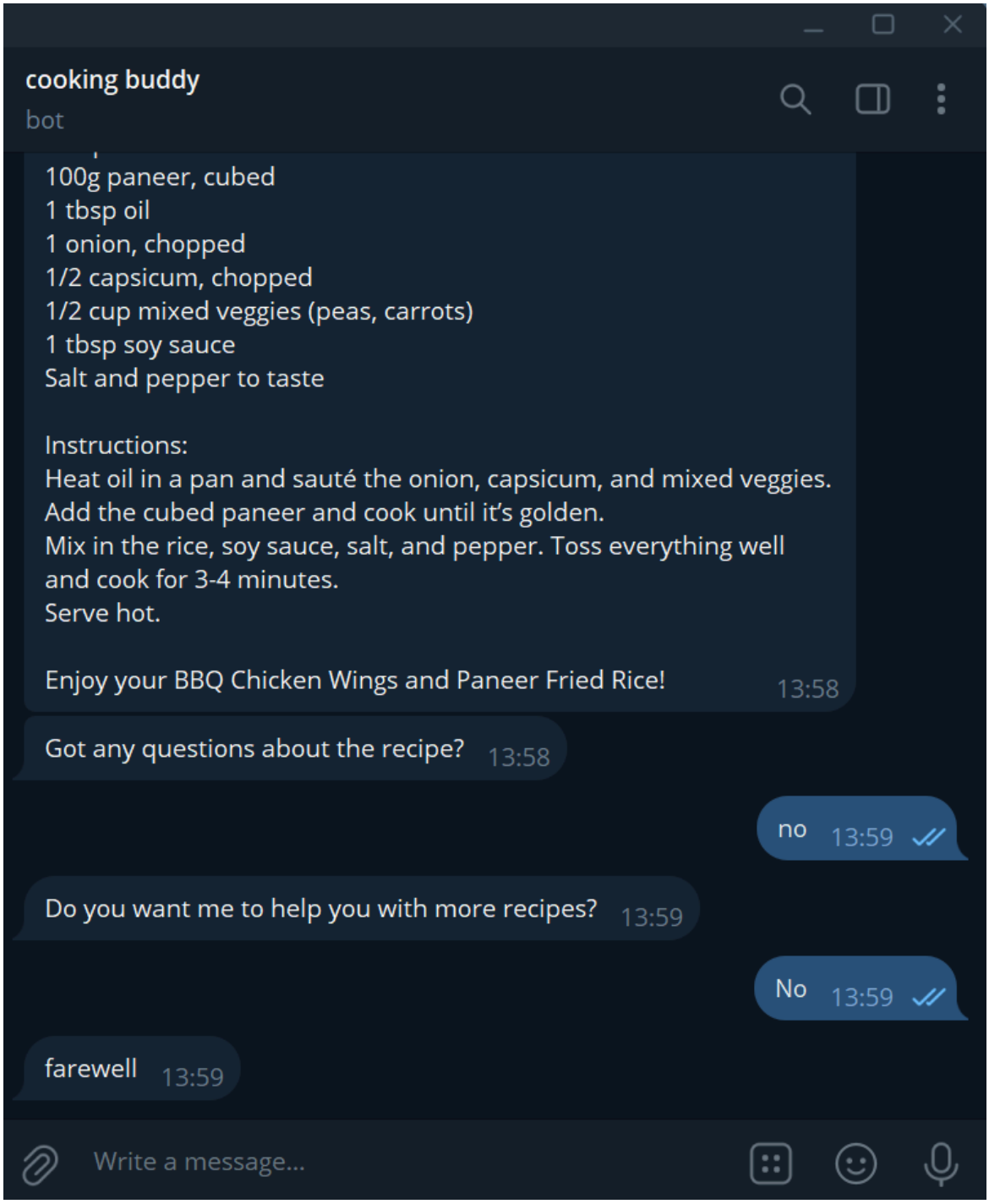
- Interaction with Cooki on Telegram.
- Botpress Workflow showcasing the bot's logic.
- Botpress interface showing intents, flows, and responses.
- CookBi website interface demonstrating Cooki integration.

Deployment Links

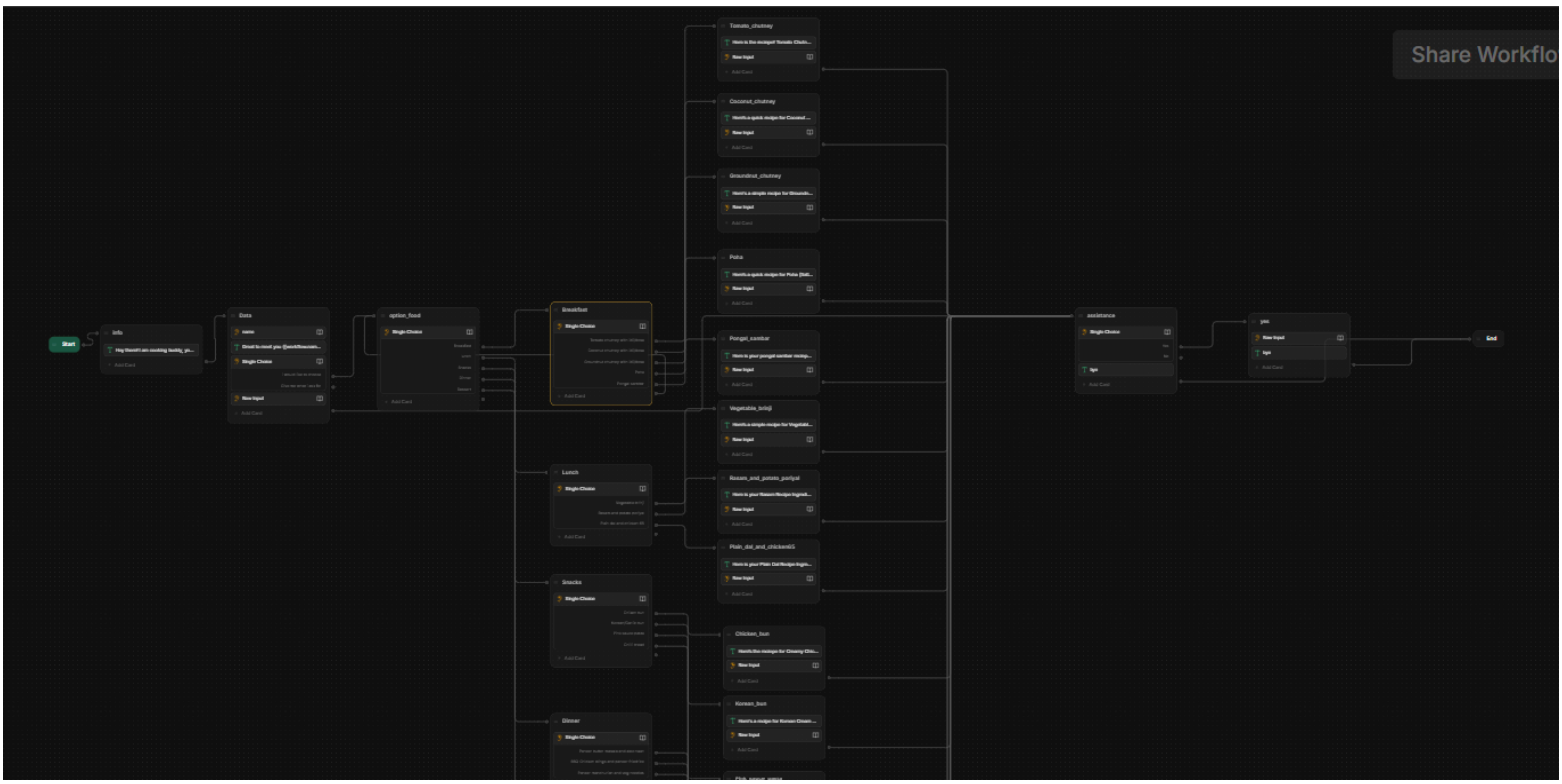
- Cooki's username on Telegram.

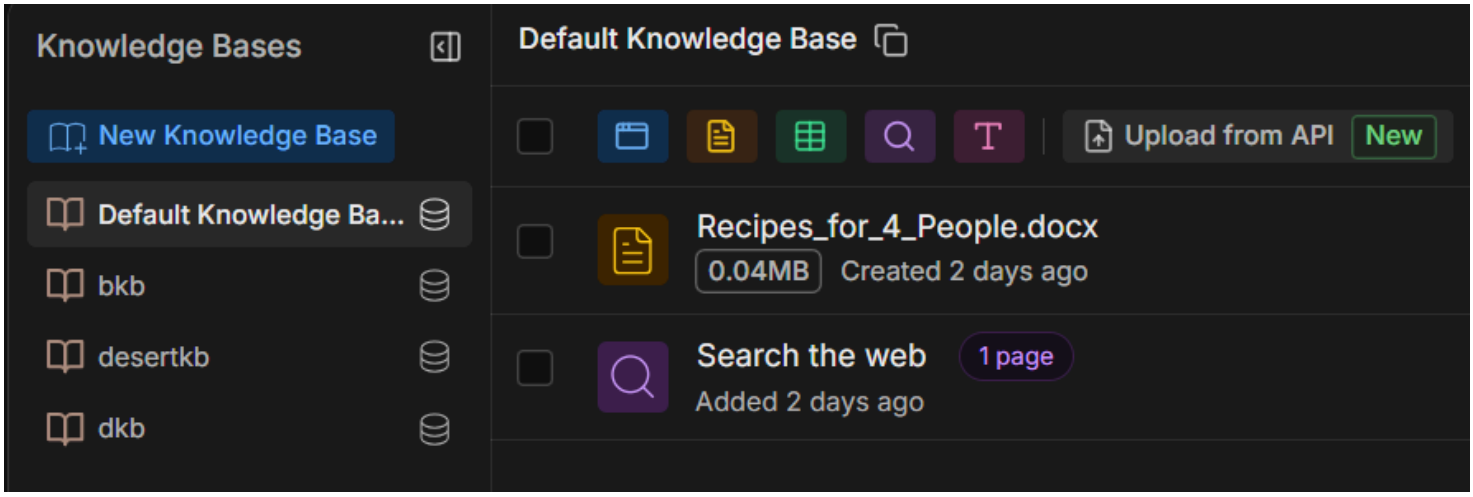
Interaction with Cooki on Telegram



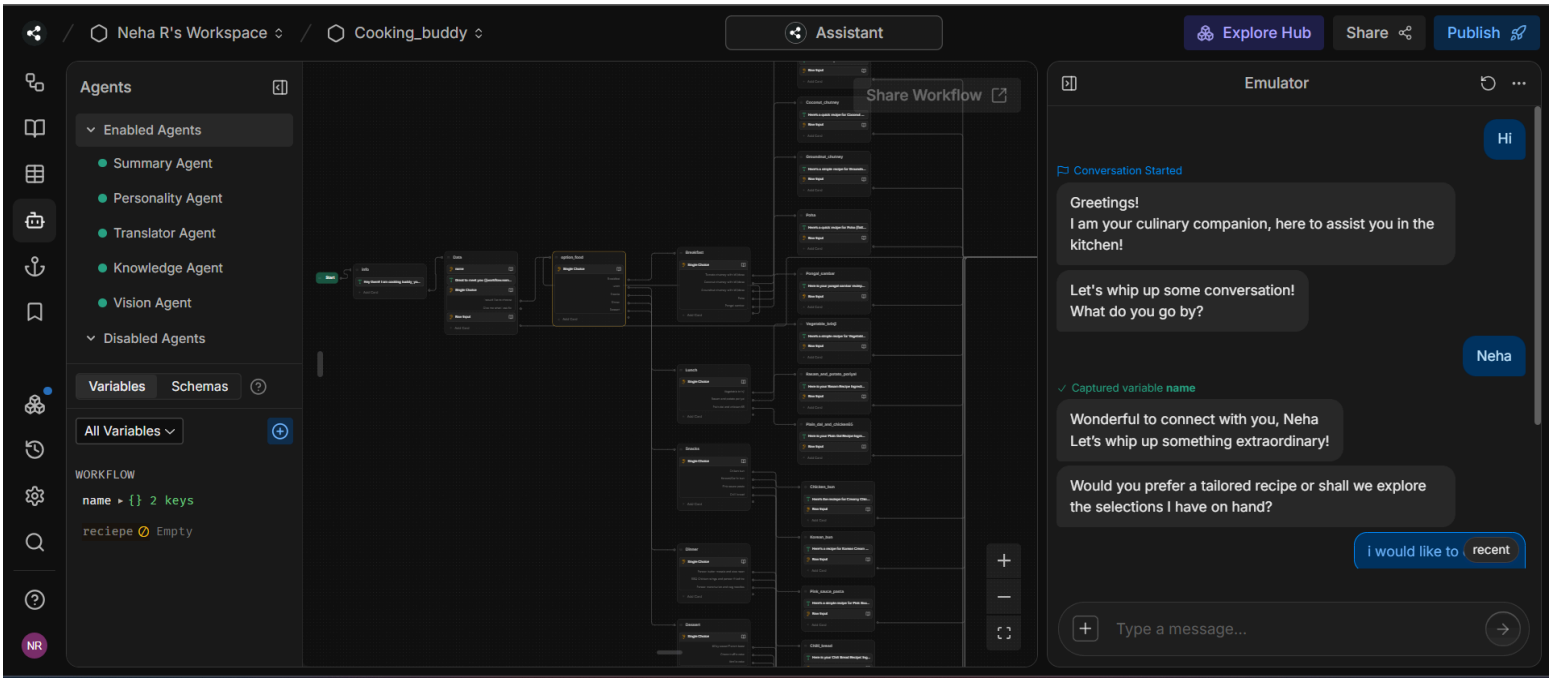

cooking buddy
bot
100g paneer, cubed
1 tbsp oil
1 onion, chopped
1/2 capsicum, chopped
1/2 cup mixed veggies (peas, carrots)
1 tbsp soy sauce
Salt and pepper to taste
Instructions:
Heat oil in a pan and sauté the onion, capsicum, and mixed veggies.
Add the cubed paneer and cook until it's golden.
Mix in the rice, soy sauce, salt, and pepper. Toss everything well and cook for 3-4 minutes.
Serve hot.
Enjoy your BBQ Chicken Wings and Paneer Fried Rice! 13:58
Got any questions about the recipe? 13:58
no 13:59
Do you want me to help you with more recipes? 13:59
No 13:59
farewell 13:59
Write a message...

Botpress Workflow showcasing the bot's logic

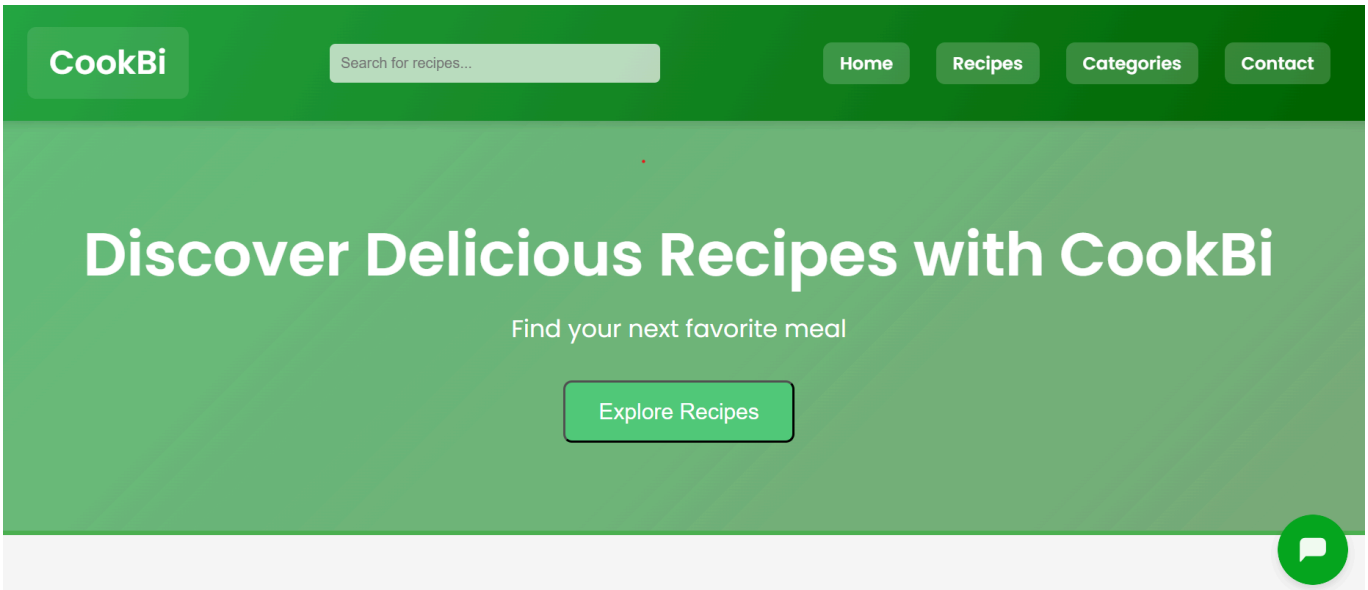


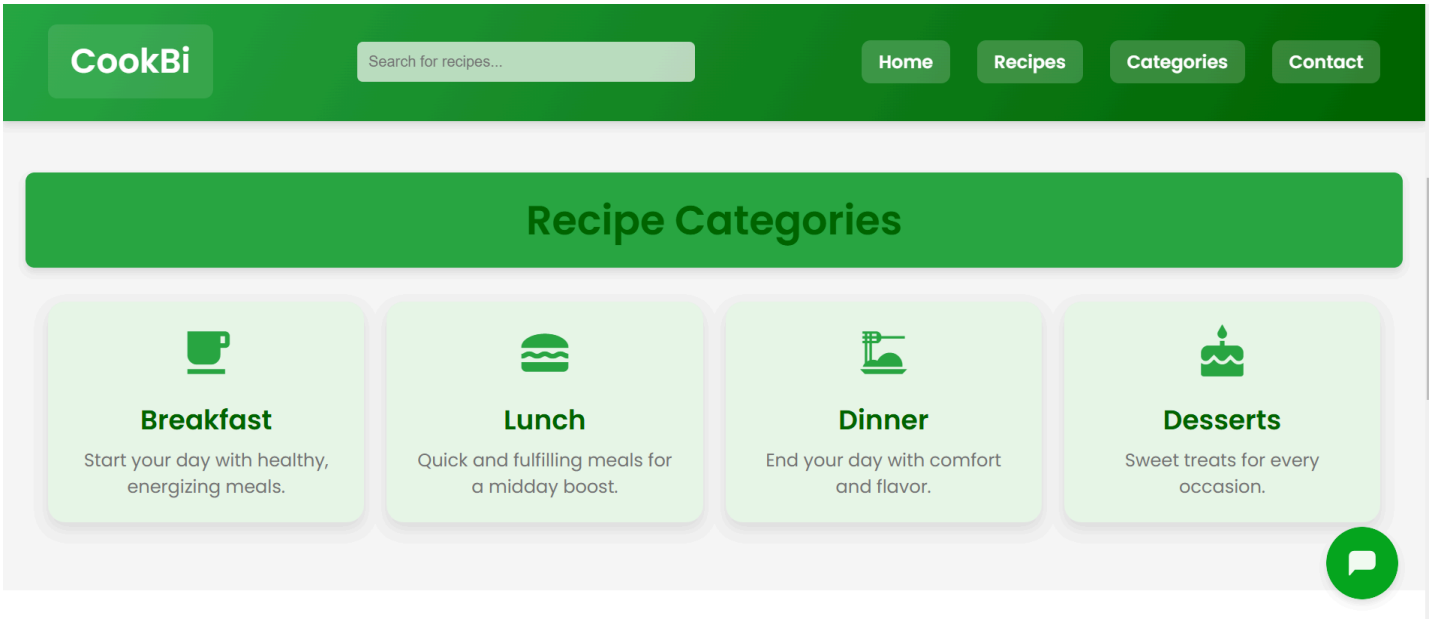


Botpress interface showing intents, flows, and responses



CookBi website interface demonstrating Cooki integration

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Recipe Categories
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Quick and fulfilling meals for a midday boost.
Dinner
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Desserts
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Fluffy pancakes with syrup.
Grilled Chicken Salad
A light, nutritious meal.
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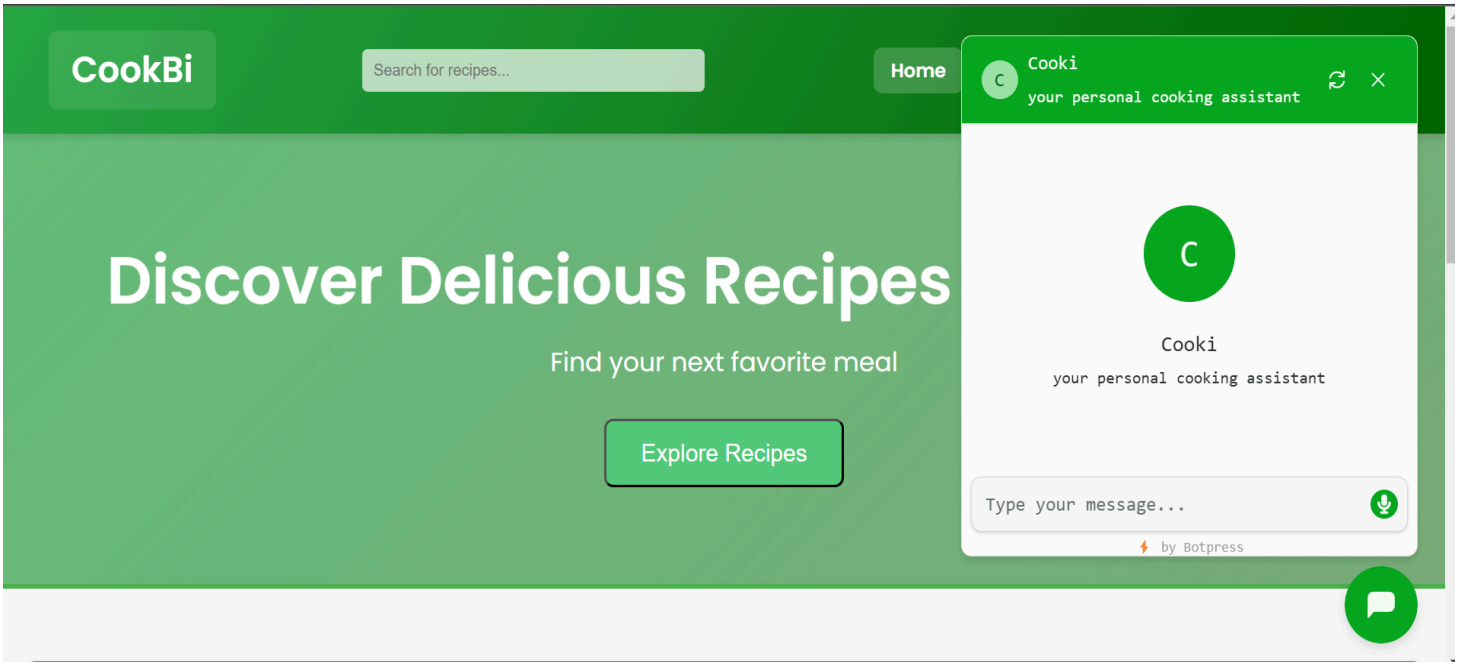

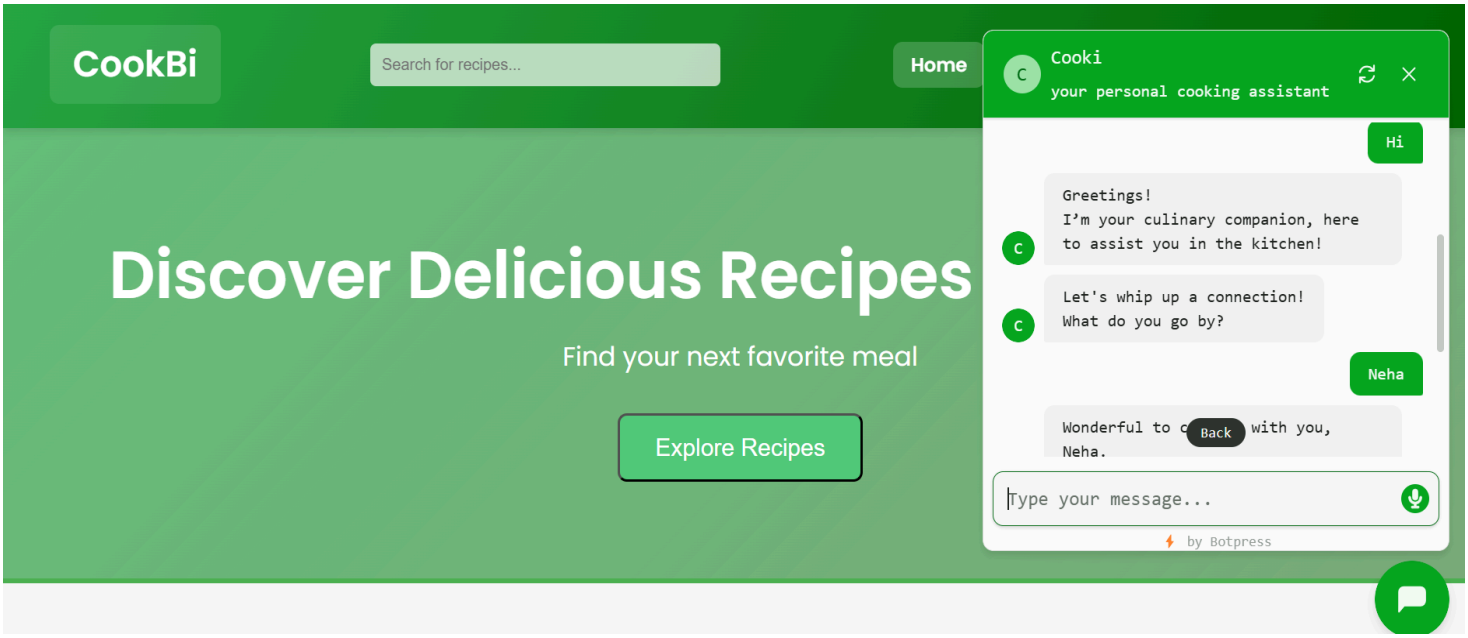

Cooki's username on Telegram : @cookbi_bot