Tittle: **DocuBot: AI Powered UiPath Documentation Assistant**

Team Members:

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1. Problem Statement

UiPath documentation is vast and complex, making it difficult for users to find the information they need. This can lead to decreased productivity, increased errors, and frustration for users.

Opportunity

An AI-powered UiPath Documentation Assistant can help to solve this problem by providing users with a single, easy-to-use interface for accessing all of the UiPath documentation. This Assistant uses Generative AI to understand the user's query and provide them with the most relevant information.

Proposed Solution

We propose to develop an AI-powered UiPath Documentation Assistant using the following technologies:

- Gen API: To generate documentation from scratch or update existing documentation.
- GPT-4: Large Language Model (LLM)
- RAG: To answer questions about the documentation using the vector DB
- Langchain: A framework to interact with LLM
- Pinecode vector DB: To store and retrieve the numerical vector embeddings.

Our solution will be integrated with the UiPath platform, so that users can easily access it from within the UiPath environment.

Benefits

An AI-powered UiPath Documentation Assistant can provide a number of benefits to users, including:

- Increased productivity: Users can spend less time searching for and trying to understand UiPath documentation.
- Reduced errors: Users are less likely to make mistakes when they are using the Assistant to access accurate and up-to-date documentation.
- Improved user experience: The Assistant will provide a more user-friendly and interactive way to access UiPath documentation.

We believe that the AI-powered UiPath Documentation Assistant will be a valuable tool for UiPath users of all levels of experience. It will help users to automate their tasks more quickly and efficiently, and it will make UiPath more accessible to a wider range of users.

How our solution addresses the hackathon theme of "AI at Work"

Our solution addresses the hackathon theme of "AI at Work" by enabling Generative AI with LLMs to be used to improve the productivity and efficiency of UiPath users. The Assistant will help users to find the information they need quickly and easily, which will allow them to automate their tasks more quickly and efficiently. This can lead to significant productivity gains for businesses of all sizes.
We believe that our solution has the potential to make a real difference in the way that UiPath is used. We are excited to participate in the hackathon and to demonstrate the value of our solution to the UiPath community.

2. Detailed description of Solution proposed

The proposed UiPath chatbot will be an AI-powered system that will be trained on a massive dataset of UiPath documentation and forum posts. It will be able to:

- Answer questions about UiPath: The chatbot will be able to answer a wide range of questions about UiPath, including questions about the platform, the various components of the platform, and how to use the platform to automate various tasks.
- Generate code snippets: The chatbot will be able to generate code snippets in UiPath's programming language, UiPath Robot Language (UIR). This will make it easier for users to automate tasks without having to write code from scratch.
- Provide step-by-step instructions: The chatbot will be able to provide step-by-step instructions on how to automate various tasks using UiPath. This will make it easier for users to learn how to use UiPath, even if they have no prior experience with automation.

The chatbot will be integrated with the UiPath platform so that users can easily access it from within the UiPath environment. It will also be available as a standalone application, so that users can access it from anywhere.
Here is a detailed description of how the chatbot will work:

1. The user will ask a question or give a command to the chatbot.
2. The chatbot will use Retravel Augmentation Generation (RAG) from Pinecone vector DB to retrieve top K chunks based on cosine similarity measure between the embeddings present in the DB and the user requested question.

3. Vector DB search result, the context and prompt engineering will be used by the LLM to generate a response to the user's request. The response may be a simple answer, a code snippet, or step-by-step instructions.

The chatbot will be trained using a variety technique, including:

- Reinforcement learning with human feedback (RLHF): The chatbot will be trained on a simulated environment where it can interact with UiPath and receive feedback on its performance. This feedback will help the chatbot to learn how to generate better responses to user requests.

The chatbot will be deployed on a cloud platform so that it can be accessed by users from anywhere. The chatbot will also be designed to be scalable so that it can handle a large number of concurrent users.
We believe that the proposed UiPath chatbot has the potential to be a valuable tool for UiPath users of all levels of experience. It will help users to automate their tasks more quickly and efficiently, and it will make UiPath more accessible to a wider range of users.