St Joseph Engineering College - Mangaluru

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Project Title

Movie Dataset Filtering and Email Distribution Bot

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Table of Contents

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1. Introduction

In an era where the abundance of movie choices can be overwhelming, the need for a personalized and efficient movie recommendation system is more prevalent than ever. The MovieMatcher bot aims to address this challenge by providing users with a tailored list of movie recommendations based on their specific preferences. This bot serves as a virtual movie assistant, helping users navigate through the vast array of movie options to find films that align with their tastes and interests.

The MovieMatcher bot is designed to streamline the movie selection process by allowing users to input their preferences, such as IMDb rating thresholds and release year criteria. Leveraging the power of automation through UiPath, the bot reads a movie dataset from a CSV file, filters the data based on the user's specifications, and presents the filtered list of movies to the user. Additionally, the bot offers the functionality to export the filtered data to an Excel sheet and send it to the user via email, providing a seamless and convenient experience.

2. Objectives

1. To outline the development process of the MovieMatcher bot, including the design and implementation of its features.
2. To demonstrate the functionality of the bot in helping users find movies based on their preferences.
3. To evaluate the effectiveness of the bot in providing accurate and relevant movie recommendations.
4. To assess the user experience of interacting with the bot and identify areas for improvement.

5. To highlight the benefits of using automation in simplifying complex tasks, such as movie selection.
6. To provide recommendations for future enhancements or developments of the MovieMatcher bot.

3. Methodology

The development of the MovieMatcher bot was guided by a structured methodology aimed at achieving the project objectives efficiently and effectively. The methodology consisted of several key steps:

Requirement Analysis: The project requirements were analyzed to understand the scope and objectives of the bot. This involved identifying the user's needs and defining the functionalities required to meet those needs.

Tool Selection: The selection of tools was based on their ability to streamline the development process and enhance the user experience. UiPath was chosen as the primary tool for bot development due to its capabilities in automation and integration.

Design: The bot's design was conceptualized to ensure a user-friendly interface and efficient functionality. This involved designing the user input collection process, data processing logic, and output generation.
Development: The bot was developed using UiPath, with each functionality implemented using the appropriate UiPath activities. This included creating the user input interface, reading data from the CSV file, filtering the data based on user criteria, exporting the filtered data to an Excel sheet, and sending the sheet via email.

4. Development of the Solution

The development of the MovieMatcher bot involved several key components, each of which played a crucial role in the bot's functionality. Here's a detailed description of the development process:

1. User Input Collection:
   UiPath Forms or Input Dialog activities were used to collect user input, including the user's name, email, IMDb rating threshold, and year of release threshold. These activities provided a user-friendly interface for input collection.

2. Reading Data from CSV:
   The Read CSV activity in UiPath was used to read the movie dataset from a CSV file into a DataTable variable (dtMovies). This activity simplified the process of reading and processing data from a CSV file.

3. Data Filtering:
   The Select method in UiPath was used to filter the movie dataset based on the user's criteria, such as IMDb rating threshold and year of release threshold. This method allowed for efficient filtering of data based on specified conditions.

4. Exporting Data to Excel:
   The Write Range activity in UiPath was used to export the filtered data to an Excel sheet. This activity enabled the bot to save the filtered data in a structured format for further analysis or sharing.

5. Sending Email:
   The Send Outlook Mail Message activity in UiPath was used to send the Excel sheet containing the filtered data to the user's email address. This activity automated the process of sending the filtered data to the user.

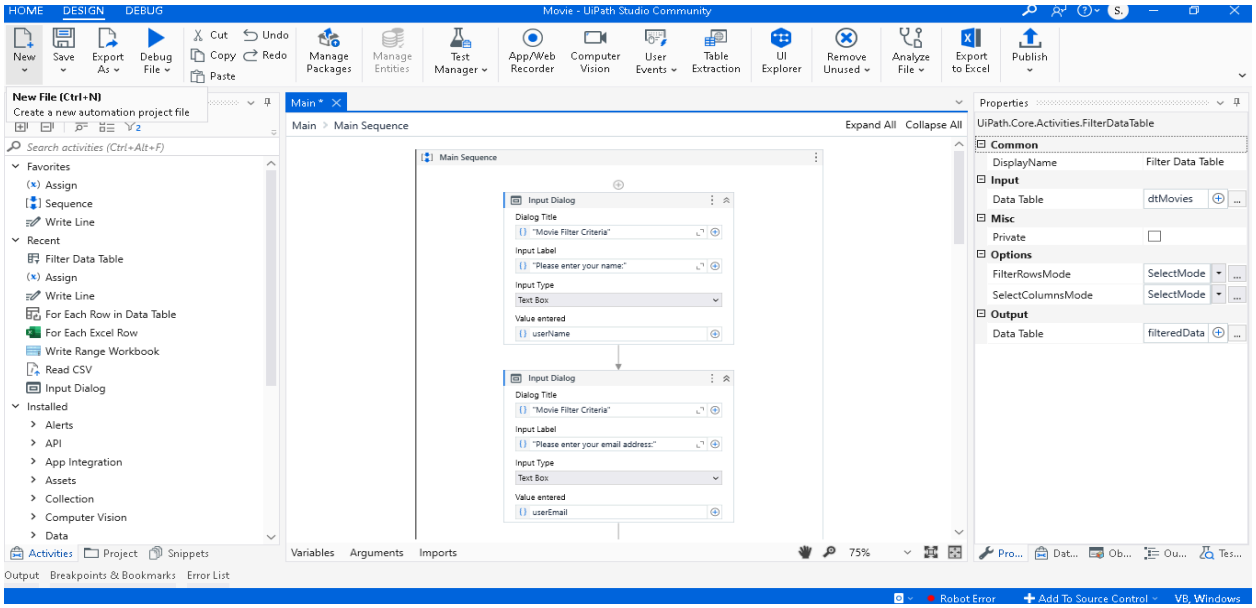

Fig. 1 : Screenshot showing the sequence of workflow and the “Input dialog” activities included

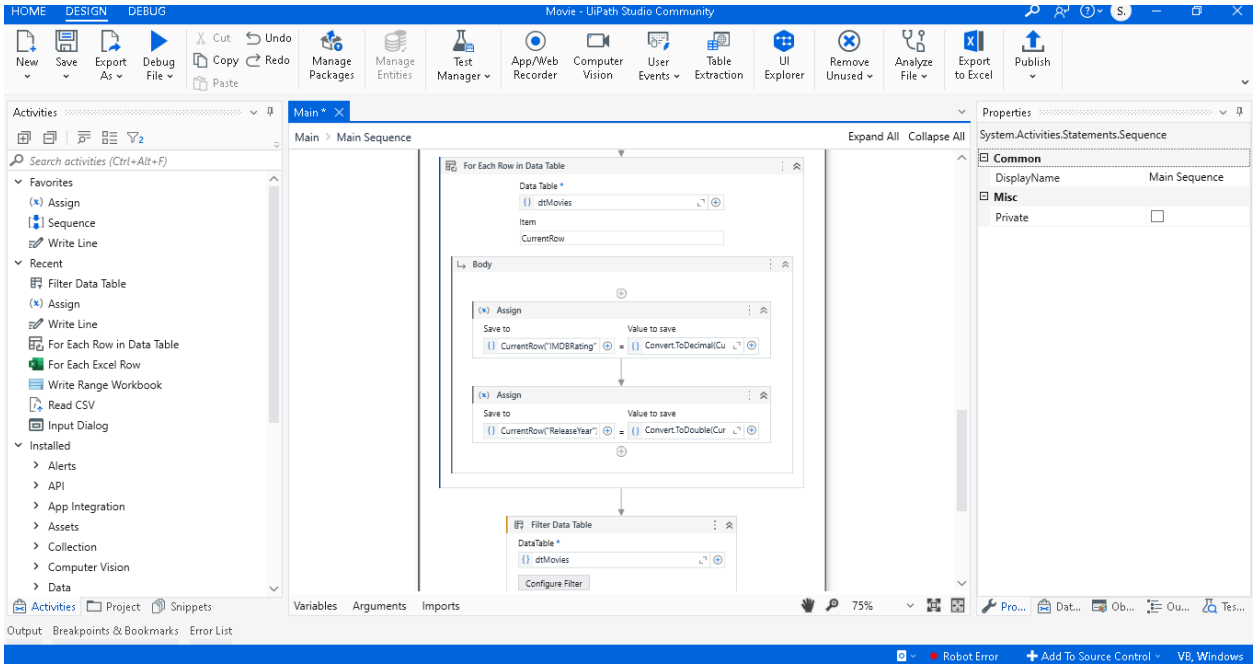

Fig. 2 :Screenshot showing the sequence of workflow and “For each row in Data Table”activities included

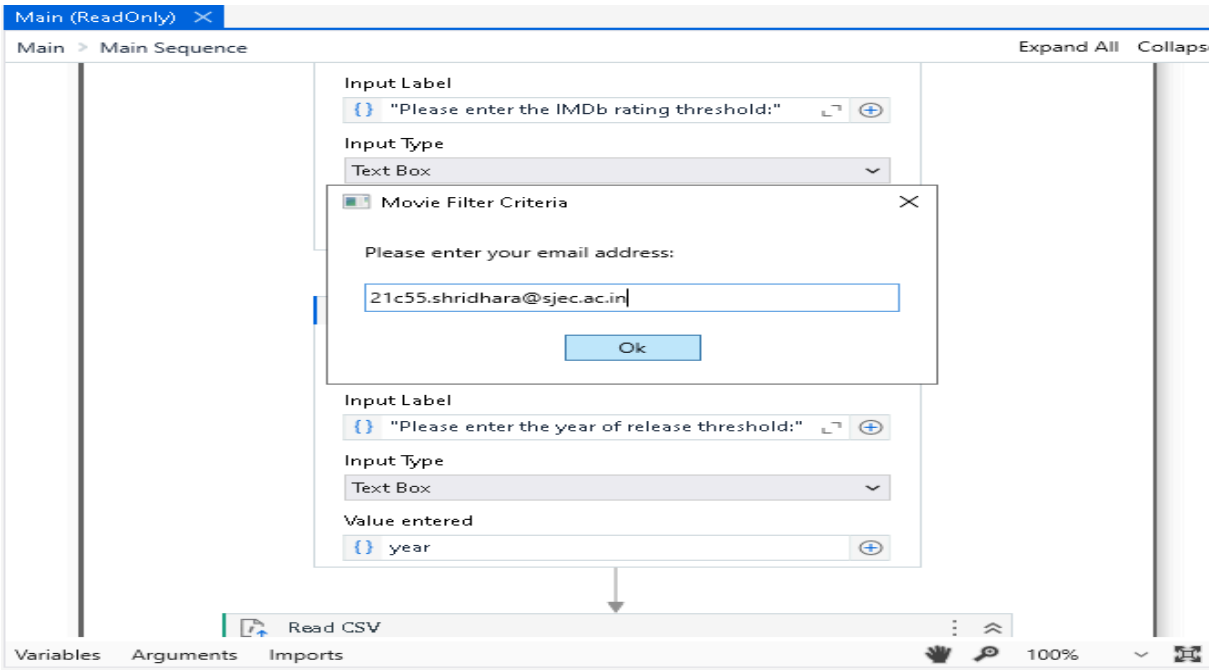

Fig. 3 : Screenshot of the chatbot asking for the user's email address.

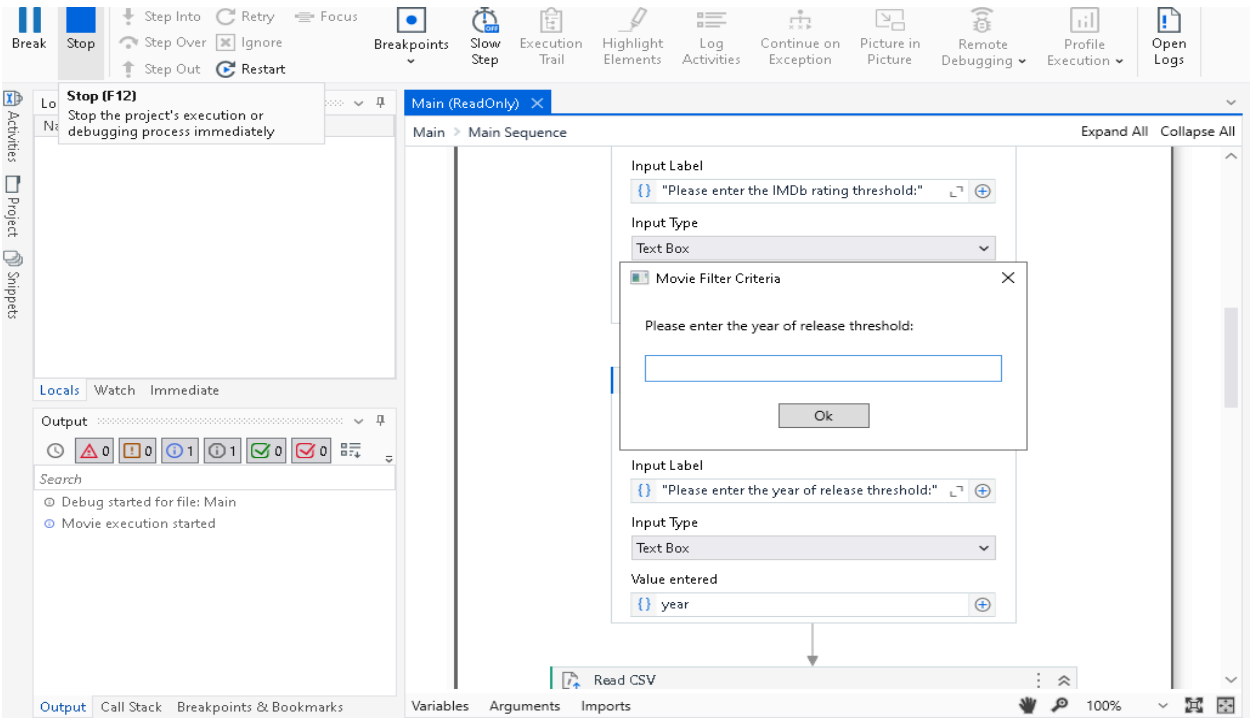

Fig. 4 : Screenshot of the chatbot asking for the release year of the movie.

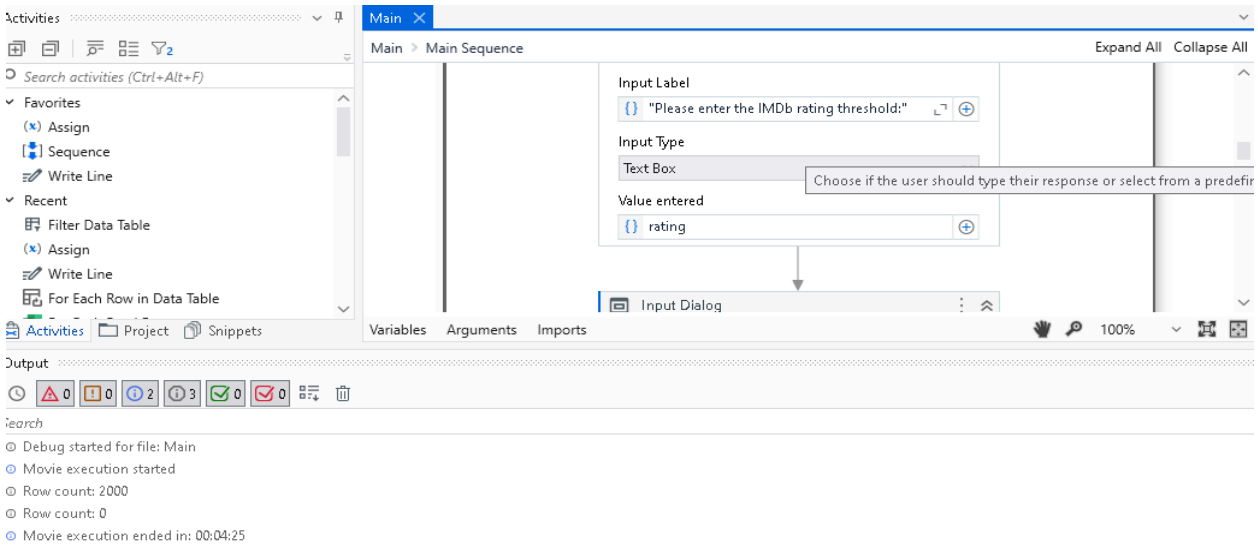

Fig. 5: Screenshot showing the result after the execution

Overall, the development of the MovieMatcher bot involved a systematic approach to designing, implementing, and testing its functionalities. The use of UiPath provided a powerful platform for bot development, enabling the creation of a user-friendly and efficient movie recommendation system.

5. Conclusion

The MovieMatcher bot represents a significant advancement in simplifying the movie selection process for users. By leveraging the power of automation through UiPath, the bot provides a personalized movie recommendation experience based on user preferences. The development and implementation of the bot have demonstrated the effectiveness of automation in enhancing user experiences and streamlining complex tasks.

Through the development process, we have successfully achieved the objectives of the project, including the creation of a chatbot that collects user preferences, reads and processes a movie dataset, filters the data based on user criteria, and exports the filtered data to an Excel sheet. The

integration of email functionality allows users to receive the filtered data directly in their inbox, further enhancing the convenience and accessibility of the bot.

Overall, the MovieMatcher bot has proven to be a valuable tool for movie enthusiasts, providing them with a simple and efficient way to discover movies that match their tastes and preferences. As technology continues to advance, the use of automation in everyday tasks such as movie selection is expected to become more prevalent, further enhancing the user experience and making tasks more manageable.

In conclusion, the MovieMatcher bot serves as a testament to the potential of automation in improving user experiences and simplifying complex tasks. It represents a step forward in the evolution of movie recommendation systems, offering users a seamless and personalized movie selection experience.