ENTERTAINMENT RATING AND RECOMMENDATION BOT

A PROJECT REPORT

Submitted by

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BONAFIDE CERTIFICATE

Certified that this project report **"Entertainment Rating and Recommendation Bot"** is the bonafide work of **"LOGESHWARAN T (220701145)"** who carried out the project work for the subject OAI1903 - Introduction to Robotic Process Automation under my supervision.

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Internal Examiner   **External Examiner**

ABSTRACT

The project "Entertainment Rating and Recommendation Bot" focuses on utilizing Robotic Process Automation (RPA) with UiPath to extract detailed movie informationfrom online sources, such as IMDb. The bot retrieves data such as movie ratings, cast,release date, storyline description, and cost. Additionally, the system automates the process of recommending similar movies based on user preferences and sends these recommendations via email. The solution aims to streamline movie data retrieval and provide personalized recommendations in an efficient manner, enhancing the user experience and saving time.

ACKNOWLEDGEMENT

I express my sincere thanks to my beloved and honourable chairman MR.S.MEGANATHAN and the chairperson DR.M.THANGAM MEGANATHAN for their timely support and encouragement.

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My sincere thanks to my family members, friends and other staff members of Computer Science and Engineering.

Logeshwaran T (220701145)

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF ABBREVIATIONS

ABBREVIATION	ACCRONYM
RPA	Robotic Process Automation
AI	Artificial Intelligence
API	Application Programming Interface
CV	Computer Vision
OCR	Optical Character Recognition

CHAPTER 1

INTRODUCTION

INTRODUCTION

The project is designed as an automated system using UiPath Robotic Process Automation (RPA) to streamline the process of obtaining movie-related information and providing personalized recommendations. By integrating web scraping or APIs, the system can extract comprehensive movie details such as ratings, production costs, cast members, a brief storyline description, and release dates.

In addition to this, the project uses automation to analyze user preferences and generate personalized movie suggestions. These recommendations are sent directly to the user via email, eliminating manual effort in searching for relevant movies. This approach saves time and enhances convenience by automating tedious processes and providing tailored movie options in a user-friendly manner. It serves as a practical solution for movie enthusiasts, combining efficient data retrieval with personalized content delivery.

OBJECTIVE

The objective of this project is to develop an efficient, automated system using UiPath RPA to simplify the process of retrieving and analyzing movie-related information. It aimsto fetch comprehensive details such as movie ratings, costs, cast members, storyline descriptions, and release dates by integrating APIs or web scraping techniques. Additionally, the project seeks to enhance the user experience by generating personalizedmovie recommendations based on user preferences and delivering these suggestions via email. This solution is designed to save time, reduce manual effort, and provide a seamless, user-friendly way to explore movies and discover tailored recommendations.

EXISTING SYSTEM

The objective of this project is to develop an efficient, automated system using UiPath RPA to simplify the process of retrieving and analyzing movie-related information. It aimsto fetch comprehensive details such as movie ratings, costs, cast members, storyline descriptions, and release dates by integrating APIs or web scraping techniques. Additionally, the project seeks to enhance the user experience by generating personalizedmovie recommendations based on user preferences and delivering these suggestions via email. This solution is designed to save time, reduce manual effort, and provide a seamless, user-friendly way to explore movies and discover tailored recommendations.

PROPOSED SYSTEM

The proposed solution is to build an automated movie information and recommendation system using UiPath RPA. This system will streamline the process by fetching detailed movie information—such as ratings, costs, cast details, synopses, and release dates— usingweb scraping or APIs from movie databases. It will also analyze user preferences to generate personalized movie recommendations and deliver them directly via email .

CHAPTER 2

LITERATURE REVIEW

Survey on Robotic Process Automation (RPA) in Entertainment field:

Robotic Process Automation (RPA) is increasingly transforming the entertainment industry by streamlining repetitive tasks, improving efficiency, and enhancing customer experiences. Some key areas of RPA application in the entertainment field include:

[1]Content Management and Metadata Updates: RPA automates the process of updating metadata for vast media libraries, ensuring data accuracy and compliance with audience preferences. This is particularly useful for subscription-based video-on-demand platforms like Netflix, where content must be kept updated with relevant details for user discovery.

[2] Customer Engagement: Automation tools like chatbots address service requests, resolve queries, and escalate complex issues to human agents, ensuring 24/7 support and faster response times, which enhances customer satisfaction.

[3]Content Creation and Personalization: RPA, coupled with AI, assists in creating structured news content, tracking trending topics, and preparing personalized recommendations for users. For instance, platforms like Spotify and Netflix use RPA to provide tailored playlists or viewing suggestions.

Survey on AI based Movie Rating:

Artificial Intelligence (AI) is revolutionizing how movies are rated by analyzing large datasets, including user reviews, critic ratings, and audience preferences, to provide more accurate and personalized ratings. AI systems use natural language processing (NLP) and machine learning algorithms to process textual data from platforms like Rotten Tomatoes and IMDb. These systems identify patterns in reviews and predict ratings for unreleased movies based on historical data and trends.

Additionally, AI-driven tools integrate user demographics and sentiment analysis to refine recommendations and tailor suggestions to individual tastes. Advanced methods, such as neural networks, have further enhanced the predictive accuracy of movie ratings, addressing challenges like subjective bias in traditional rating systems.

This approach helps movie studios gauge audience reception and improve their marketing strategies while providing viewers with reliable, data-driven insights for selecting films.

Survey on Fake Reviews:

Fake reviews have become a significant challenge in movie rating systems, often misleading audiences and compromising the credibility of platforms. AI techniques, particularly machine learning and deep learning, have been instrumental in detecting and mitigating fake reviews. Below are key insights based on recent research:

Modern systems rely on natural language processing (NLP) techniques such as sentiment analysis, topic modelling, and word embeddings to classify reviews as genuine or fake. Supervised learning algorithms like Support Vector Machines (SVM), Random Forests,

and Deep Neural Networks have been extensively used to identify patterns in fake reviews, showcasing promising results in classification accuracy

.

[1] Datasets

Public datasets like the Movie Review Dataset have been widely used for benchmarking. These datasets consist of labelled reviews categorized as genuine or fake, enabling researchers to train and validate models

.

[2] Challenges

Evolving Fake Review Strategies: Fake reviews often exhibit adaptive language patterns to evade detection algorithms, necessitating continuous retraining of models.

Data Imbalance: Genuine reviews often outnumber fake ones, leading to challenges in training balanced models

Summary of the intersection of RPA, AI in Movie Rating and Detectionof fake Reviews:

[1] Robotic Process Automation (RPA) in Entertainment:

RPA is streamlining operations in entertainment by automating repetitive tasks such as metadata updates for media libraries, improving customer engagement with chatbots for 24/7 support, and assisting in content personalization. Platforms like Netflix and Spotify leverage RPA for tailored recommendations, ensuring data accuracy and enhancing customer experiences.

[2] AI in Movie Rating:

AI revolutionizes movie rating by analyzing user reviews, critic opinions, and audience preferences using machine learning and NLP techniques. These tools predict movie ratings based on historical data, demographics, and sentiment analysis, providing personalized recommendations and reducing bias. Studios benefit from AI insights for marketing strategies and audience targeting.

[3] Detection of Fake Reviews:

Fake reviews undermine trust in rating platforms, but AI-driven tools like supervised learning algorithms (e.g., SVM, Random Forests) and NLP methods (e.g., sentiment analysis) are combating this issue. Public datasets facilitate the training of detection models, though challenges such as data imbalance and evolving fake strategies require continuous improvement.
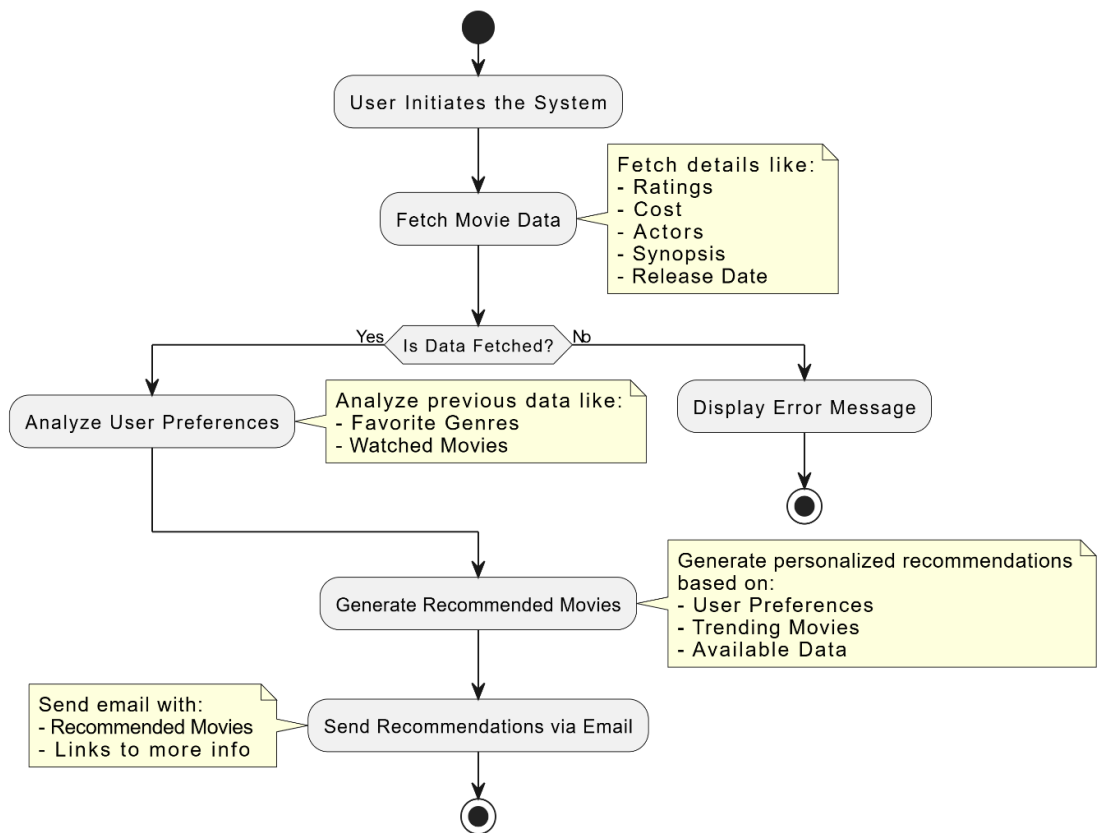
This blend of RPA and AI technologies is reshaping the entertainment industry, offering efficiency, personalization, and credibility in content management, user experience, and ratings.
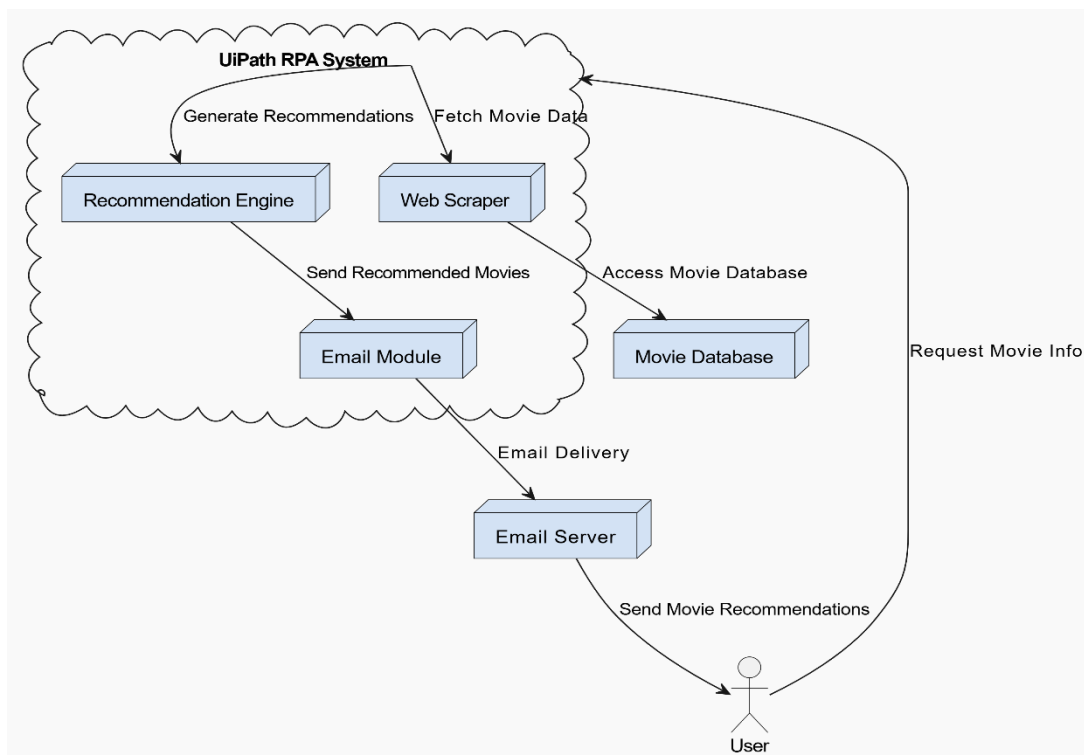
CHAPTER 3

SYSTEM DESIGN

3.1 SYSTEM FLOW DIAGRAM
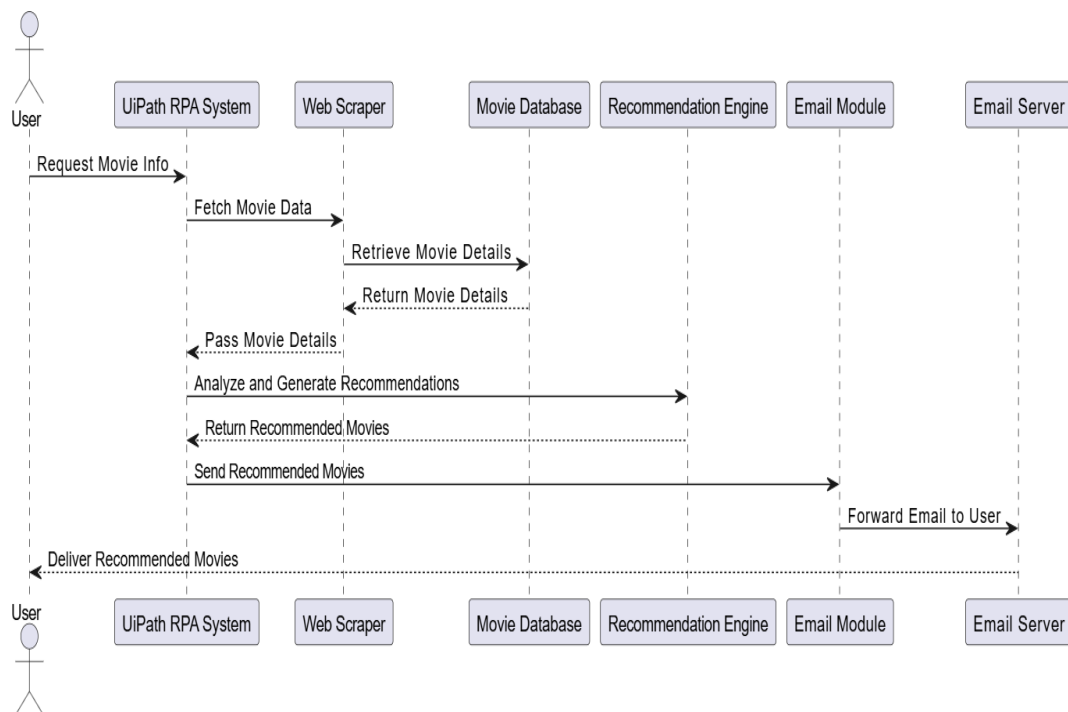
Fig3.1SystemFlowDiagram

3.2 ARCHITECTURE DIAGRAM

Fig3.2Architecture Diagram

3.3 SEQUENCE DIAGRAM

Fig3.3Sequence Diagram

CHAPTER 4

PROJECT DESCRIPTION

Entertainment Rating and Recommendation Bot is an advanced Robotic Process Automation (RPA) project designed to automate the process of fetching detailed information about movies and providing personalized recommendations. Developed using UiPath, this intelligent bot simplifies the process for users by automatically retrieving movie details like ratings, cast, cost, a brief description, and release dates. Additionally, the bot can send movie recommendations to the user's email.

MODULES:

INPUT HANDLING AND INITIALIZATION:

Movie Selection:

- Accepts user input to search for a movie based on its name or ID.
- Retrieves the corresponding movie details from an external source .

Data Fetching:

. Automatically fetches movie information, including ratings, cast, cost, short description of the story, and release date from a movie database (e.g., IMDb, TMDB).

Email Generation:

. Creates a dynamically generated Email r that includes the fetched movie details and stores it for future reference.

CONTENT ANALYSIS:

Movie Details Fetching:

. Iterates through the selected movie's API or data source to gather detailed contentsuch as ratings, actors, short description, cost, and release date.

Movie Recommendation:

- . Uses a recommendation algorithm to suggest movies based on the user'spreferences or previous selections.

RESULT MANAGEMENT:

Result Storage:

- . Updates the Excel report with all relevant movie details retrieved for the user.

Email Notification:

- . Sends a personalized email to the user with the movie details, as well as therecommended movies based on the user's input.

COMPLETION AND REPORTING:

Completion Message:

Provides a final message to confirm the successful retrieval of movie details and the emailnotification sent.

This version of the project reflects the automation of movie details retrieval, along with the added functionality of movie recommendations and email notifications, based on yourRPA project using UiPath.

CHAPTER 5

OUTPUT SCREENSHOTS
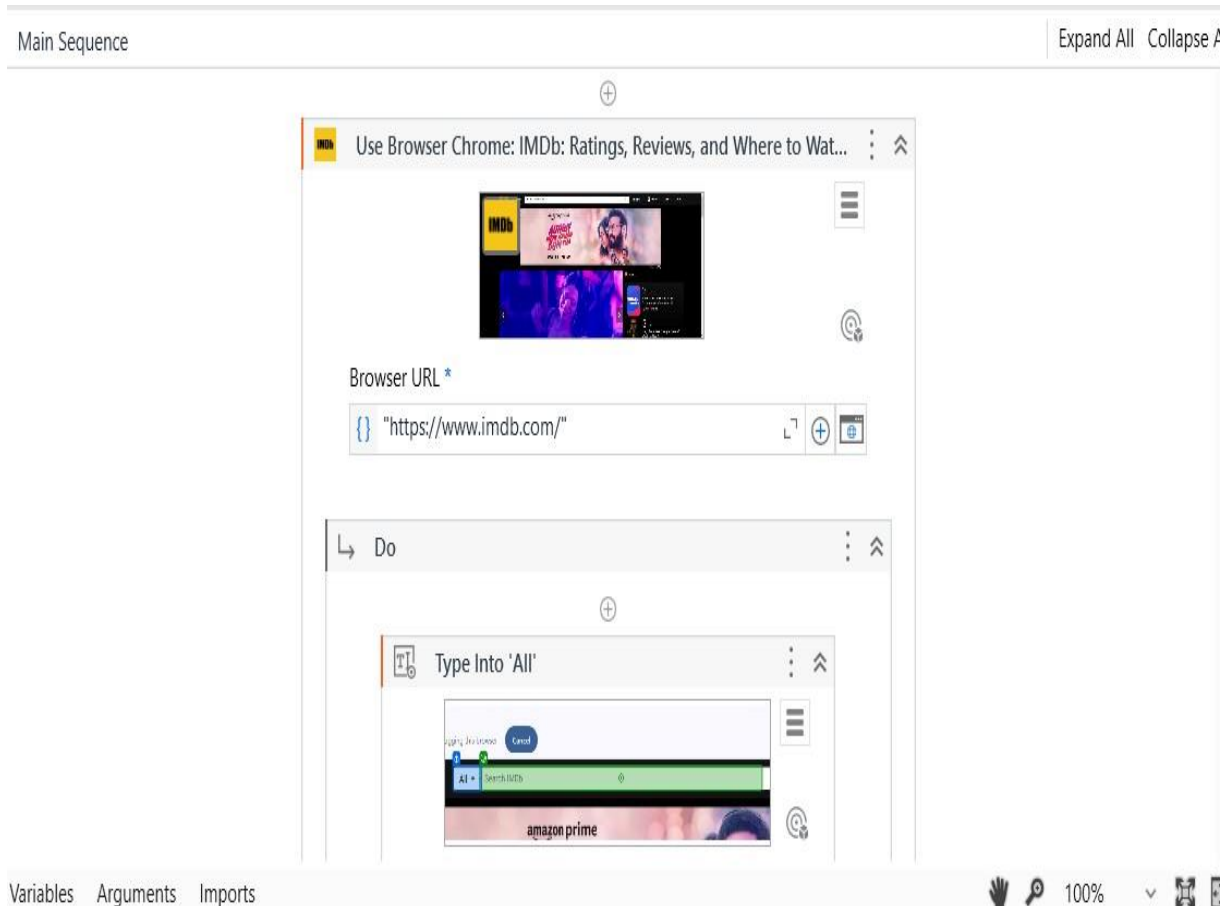
Fig 5.1 – Movie Information Retrieval

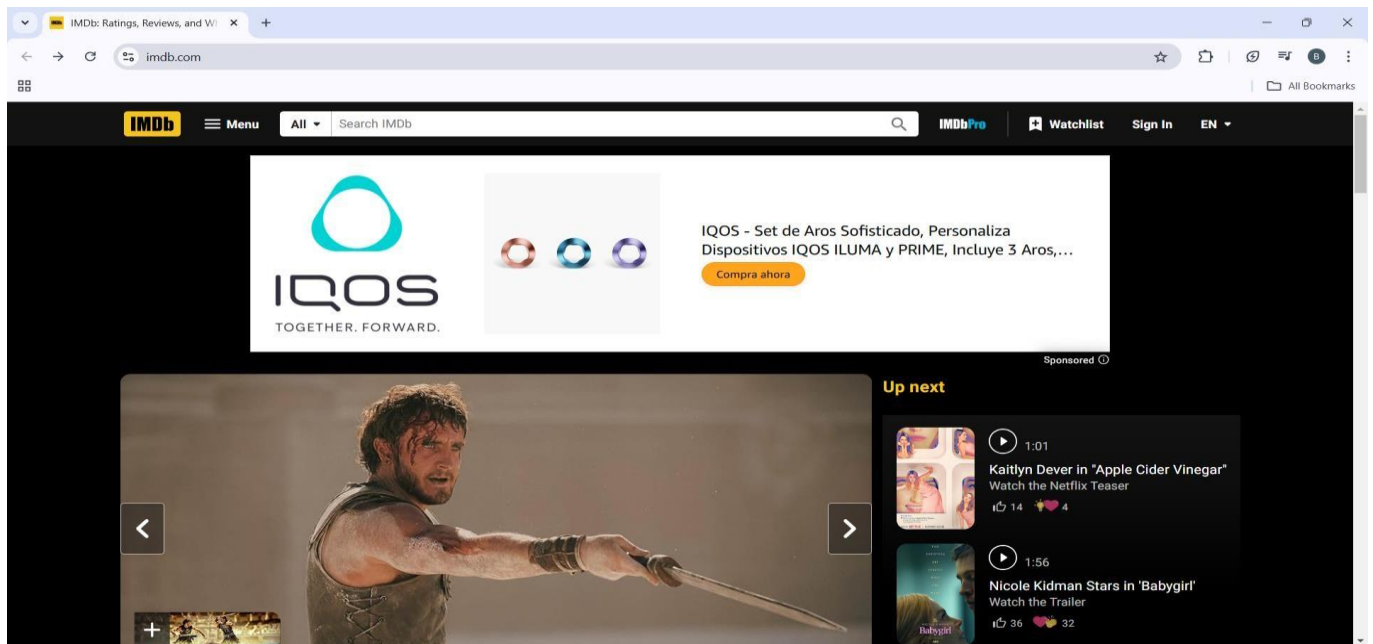The UiPath process automates the retrieval of movie details from IMDb

Fig 5.2 –IMDb website

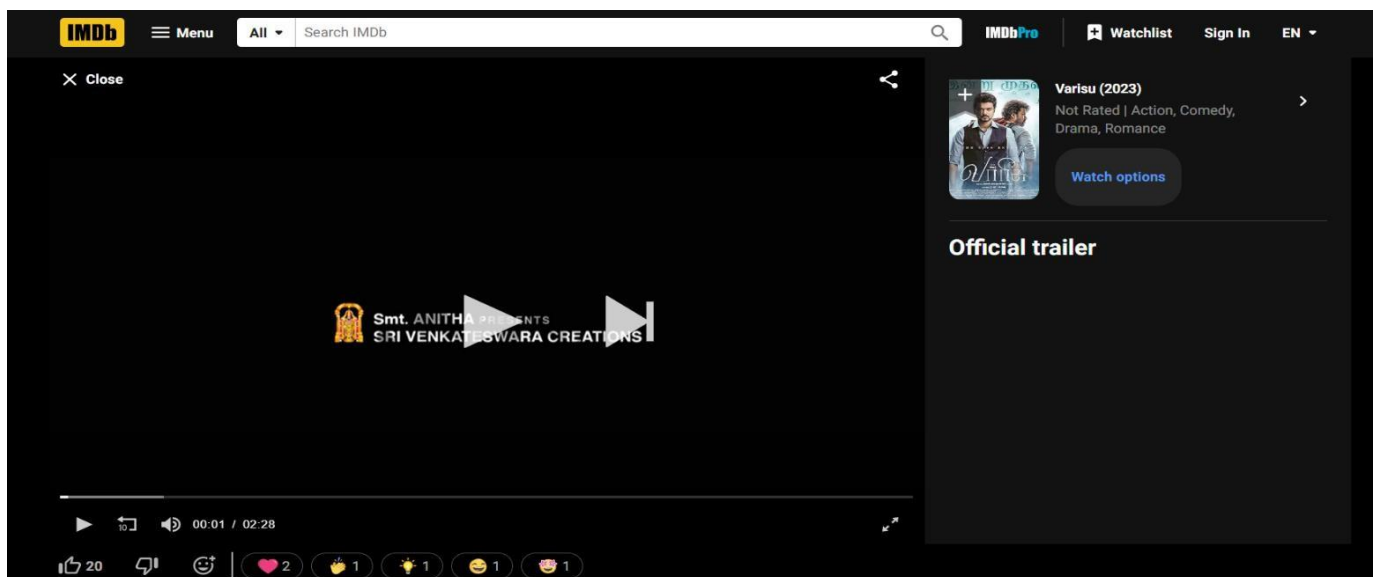The UiPath directs the user to the IMDb website to search the related movies

Fig 5.3 – The related movie

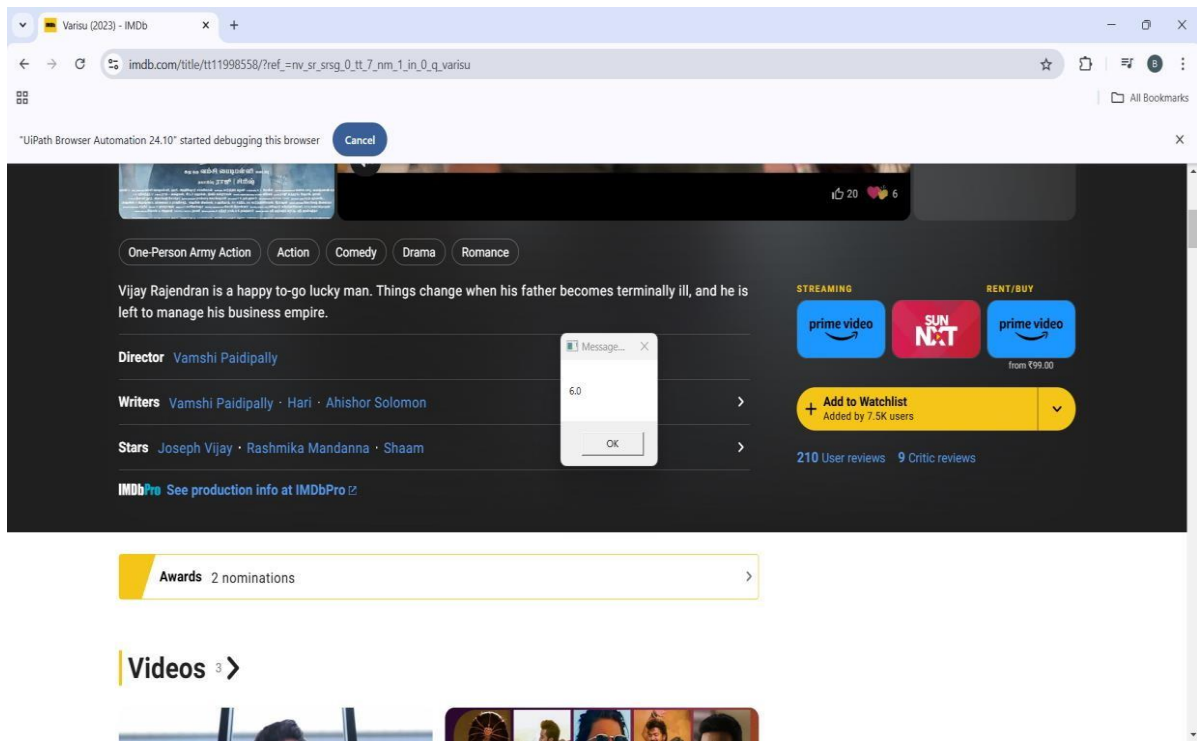The UiPath then directs the user for the searched movie

Fig 5.4 – The movie rating

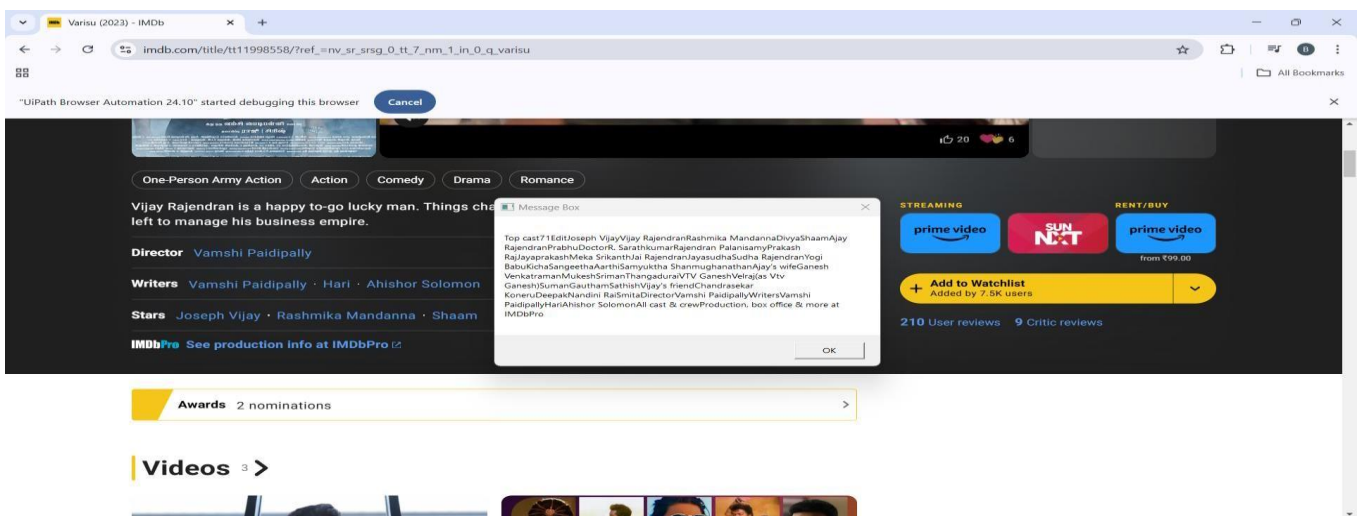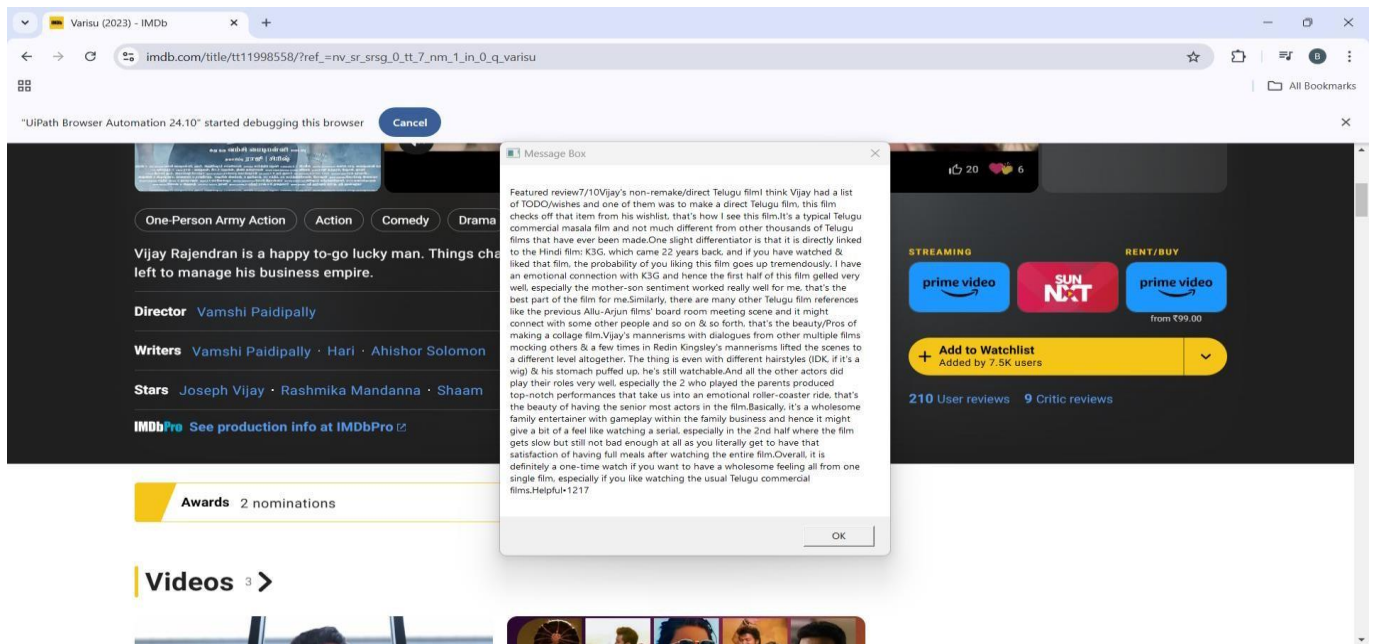The UiPath then displays the rating of the movie

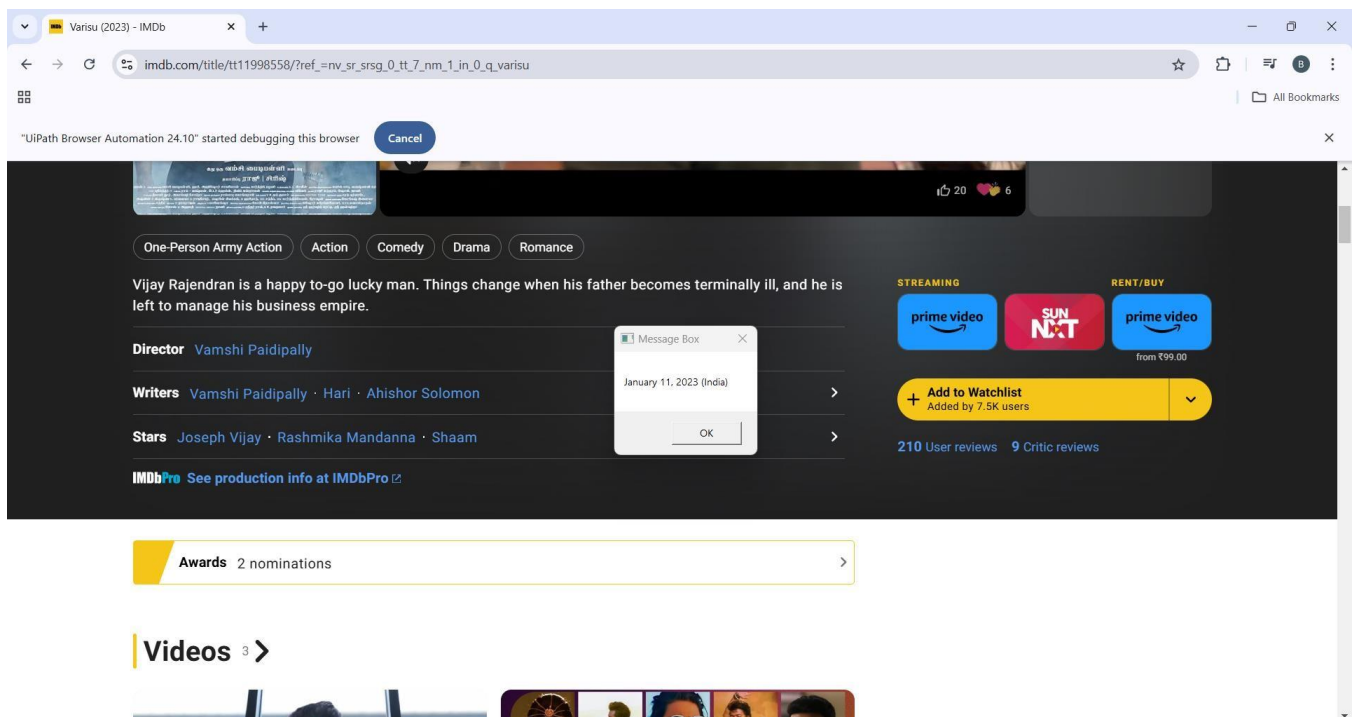Fig 5.5 – The movie crew

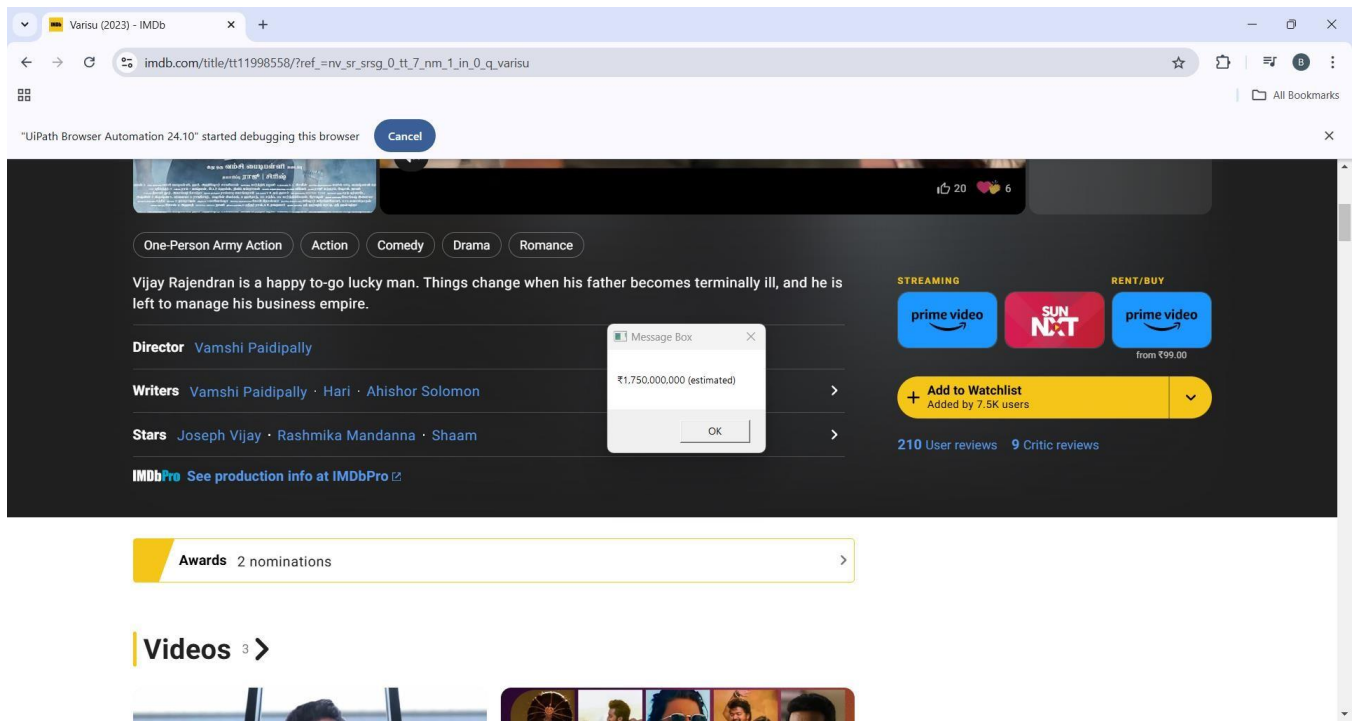Fig 5.6 – The movie description

Fig 5.7 – The movie release date

Fig 5.8 – The budget of the movie

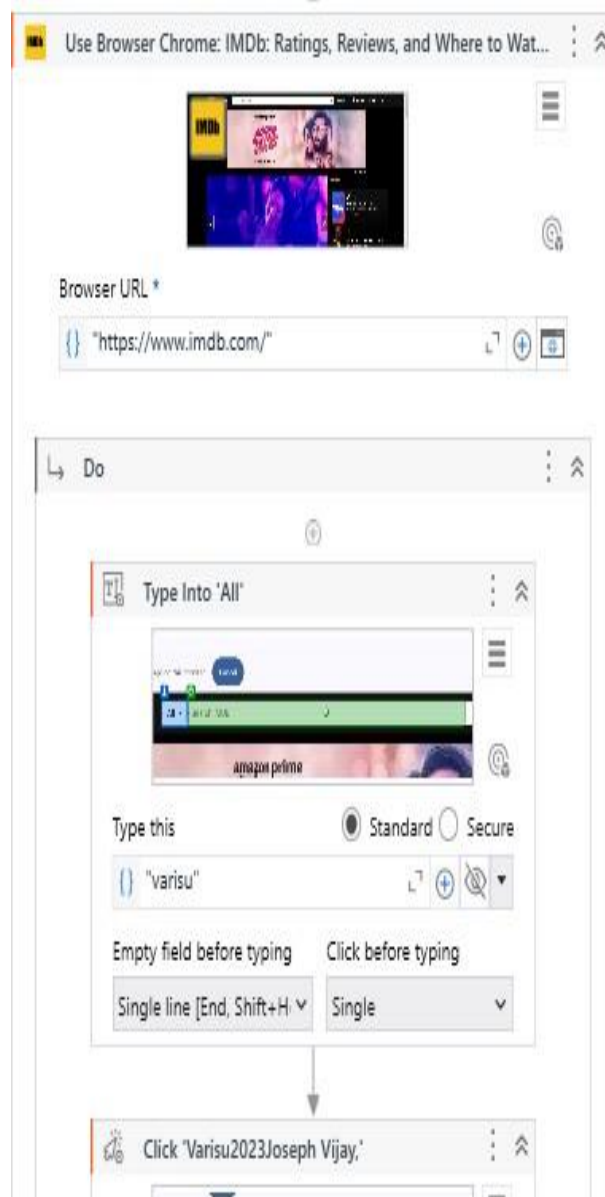Fig 5.9 – The received mail

CHAPTER 6

CONCLUSION

The UiPath-based RPA project designed to automate the extraction of movie information from IMDb demonstrates significant efficiency in retrieving essential details such as ratings, cost, actors, short description, and release dates. By automating the process, the bot minimizes manual efforts and enhances accuracy in gathering data from multiple movies. Additionally, the integration of email functionality to send recommended movies further optimizes the workflow, ensuring that users receive personalized content updates seamlessly. This project exemplifies how UiPath's automation capabilities can be effectively applied to data extraction tasks, saving time while maintaining precision.
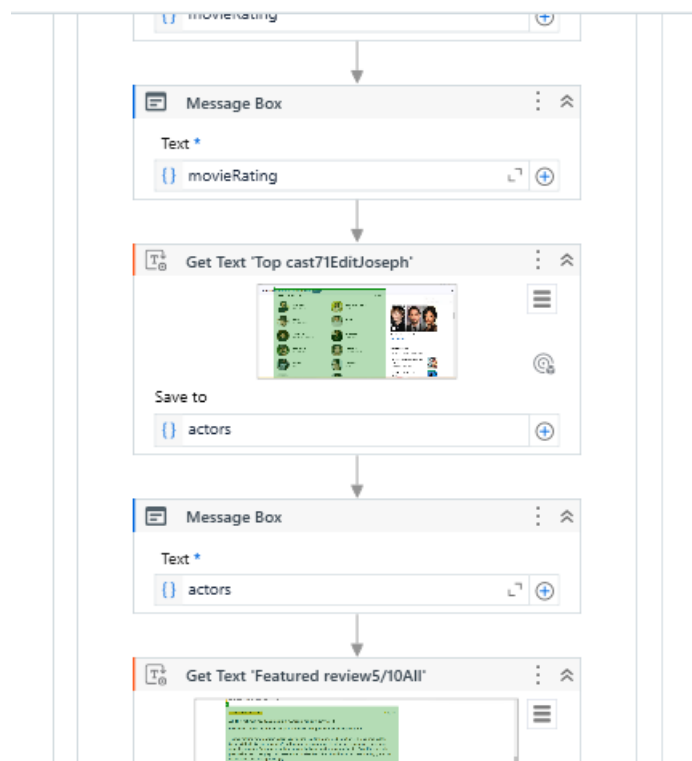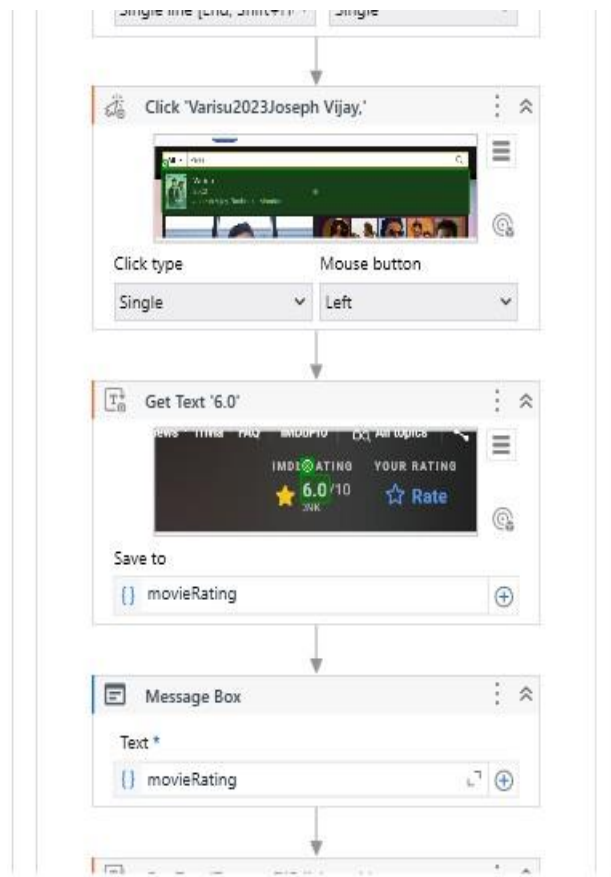
Such applications of RPA can be extended across various industries for automating repetitive tasks, contributing to higher productivity and improved user experiences.
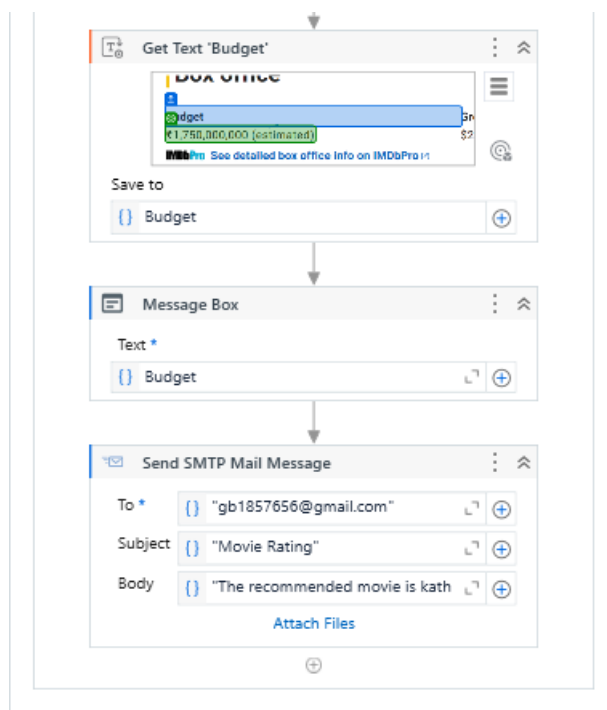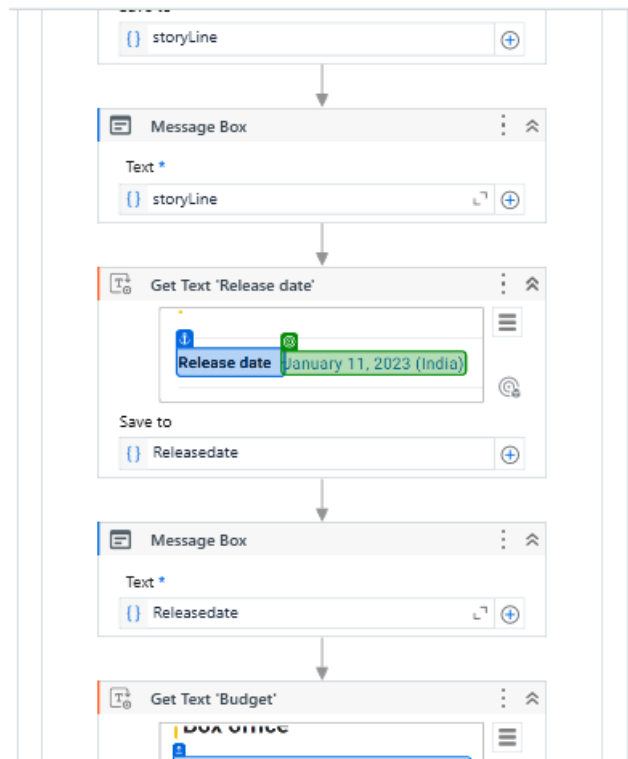
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APPENDIX

PROCESS WORK FLOW

Single line [End, Shift+F] | Single

Click 'Varisu2023Joseph Vijay,'

Click type
Single

Mouse button
Left

Get Text '6.0'

Save to
{} movieRating

Message Box

Text *
{} movieRating

{} movieRating

Message Box

Text *
{} movieRating

Get Text 'Top cast71EditJoseph'

Save to
{} actors

Message Box

Text *
{} actors

Get Text 'Featured review5/10All'

27

REFERENCES

[1]. UiPath Official Website – For more details on how UiPath helps automate businessprocesses and its use in robotic process automation, visit [UiPath](https://www.uipath.com)

.

[2]. IMDb – To understand how data is retrieved from IMDb, the movie informationplatform, check out [IMDb](https://www.imdb.com).

[3]. UiPath Academy – For a deeper dive into RPA with UiPath, including automationexamples, training, and certifications, visit [UiPath Academy](https://academy.uipath.com).

These references provide the foundational understanding of UiPath's capabilities and howweb data can be efficiently extracted and managed using RPA.