Introduction to
Robotic Process Automation

Anime Episode Tracker

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Abstract

Anime Episode Tracker , developed with UiPath Studio, is a powerful automation tool designed to streamline the process of tracking anime episode releases. By intelligently scraping data from popular anime websites, the bot matches release dates with user preferences and sends timely notifications whenever new episodes become available. This automation not only reduces manual effort and minimizes the risk of missing updates but also empowers digital platforms to make data-driven decisions, enhance content recommendations, and adapt to evolving viewer interests—making it a vital tool in the rapidly growing anime and digital media landscape.

Need for the Proposed System

Automated Tracking:
Automatically retrieves episode details like release dates and streaming platforms, reducing manual effort.

Improved User Experience:
Organizes data clearly and sends timely notifications, ensuring fans never miss an update.

Time Efficiency:
Saves time and keeps information well-organized, making it easy to follow favorite shows.

Advantages of the proposed system

Efficiency: Automates episode tracking, saving time and effort for users.

Convenience: Provides timely notifications and organizes data for easy access.

Enhanced Experience: Ensures users never miss an episode, improving their anime-watching experience.

Customization: Allows users to track specific anime titles, catering to individual preferences.

Literature Survey

Advantages:

- Automates tracking of anime episodes.
- Provides real-time episode updates.
- User-friendly interface for easy navigation.

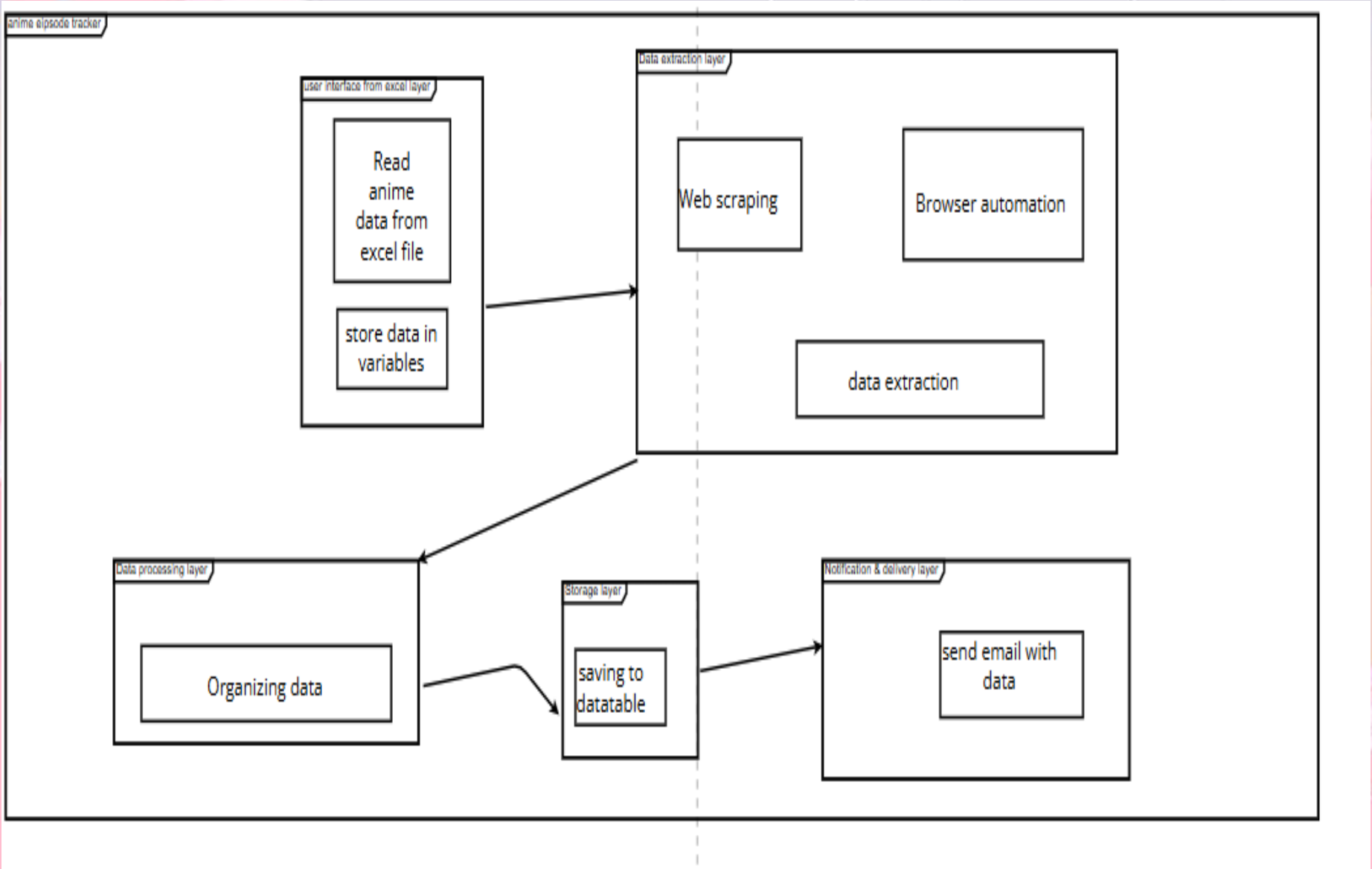
Disadvantages:

- Depends on external website data accuracy.
- Limited to anime tracking only.
- May not support all streaming platforms.

Main Objective

1. **Automate Anime Episode Tracking**
   Enable users to automatically track and receive updates on anime episodes.
2. **Provide Real-Time Notifications**
   Notify users promptly about new episode releases based on their preferences.
3. **Organize Episode Data**
   Collect and present episode details like release dates and streaming platforms in an easy-to-access format.
4. **Enhance User Experience**
   Improve the anime-watching experience by ensuring users never miss an update on their favorite shows.

Architecture



System Requirements

Hardware Requirements:

- Processor: Intel Core i3 or higher
- RAM: 4 GB or more
- Storage: 500 MB free space
- Internet Connection

Software Requirements:

- UiPath Studio
- Microsoft Excel
- Web Browser (Chrome/Firefox)
- .NET Framework
- Operating System: Windows 10 or higher

Functional Description

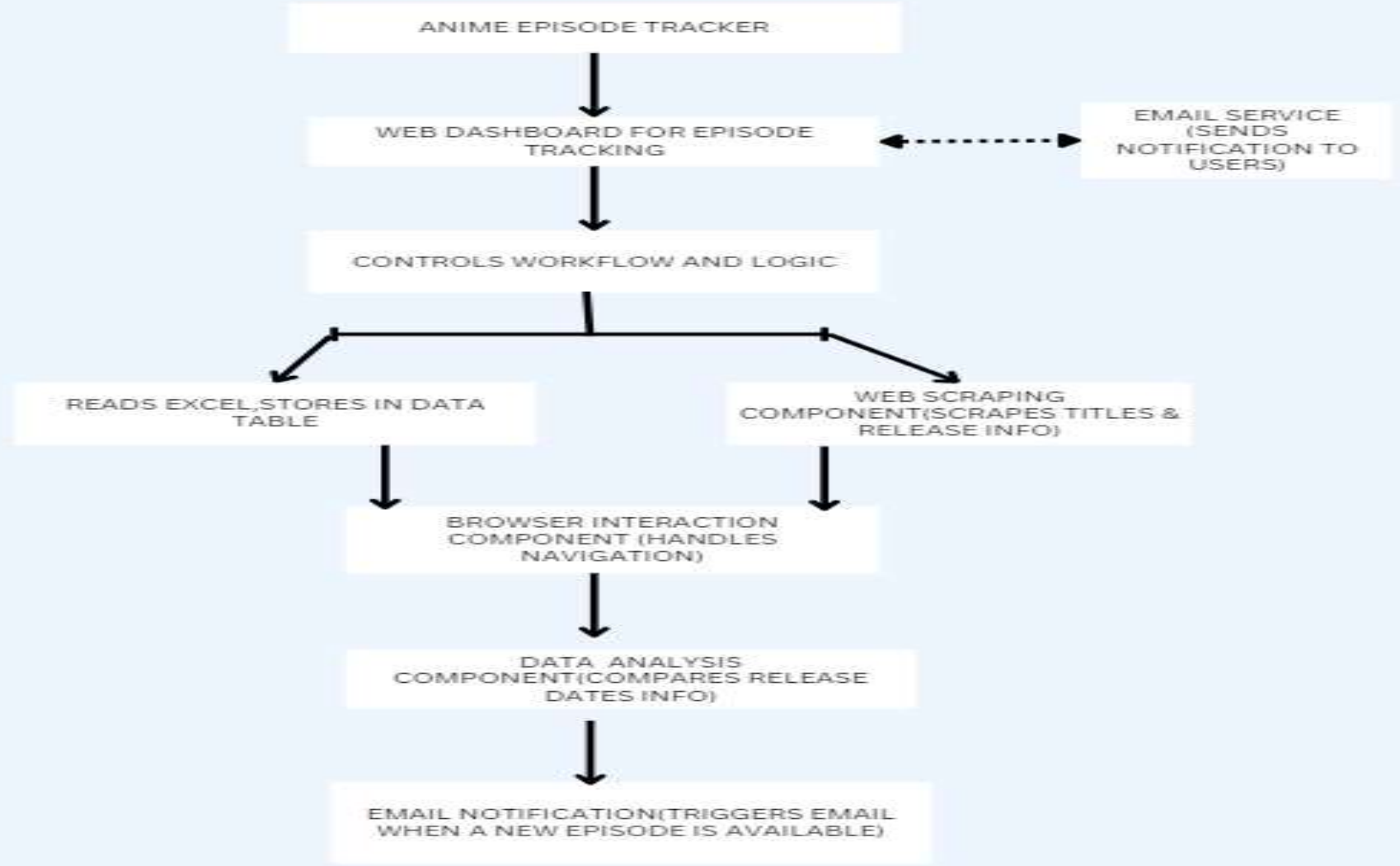
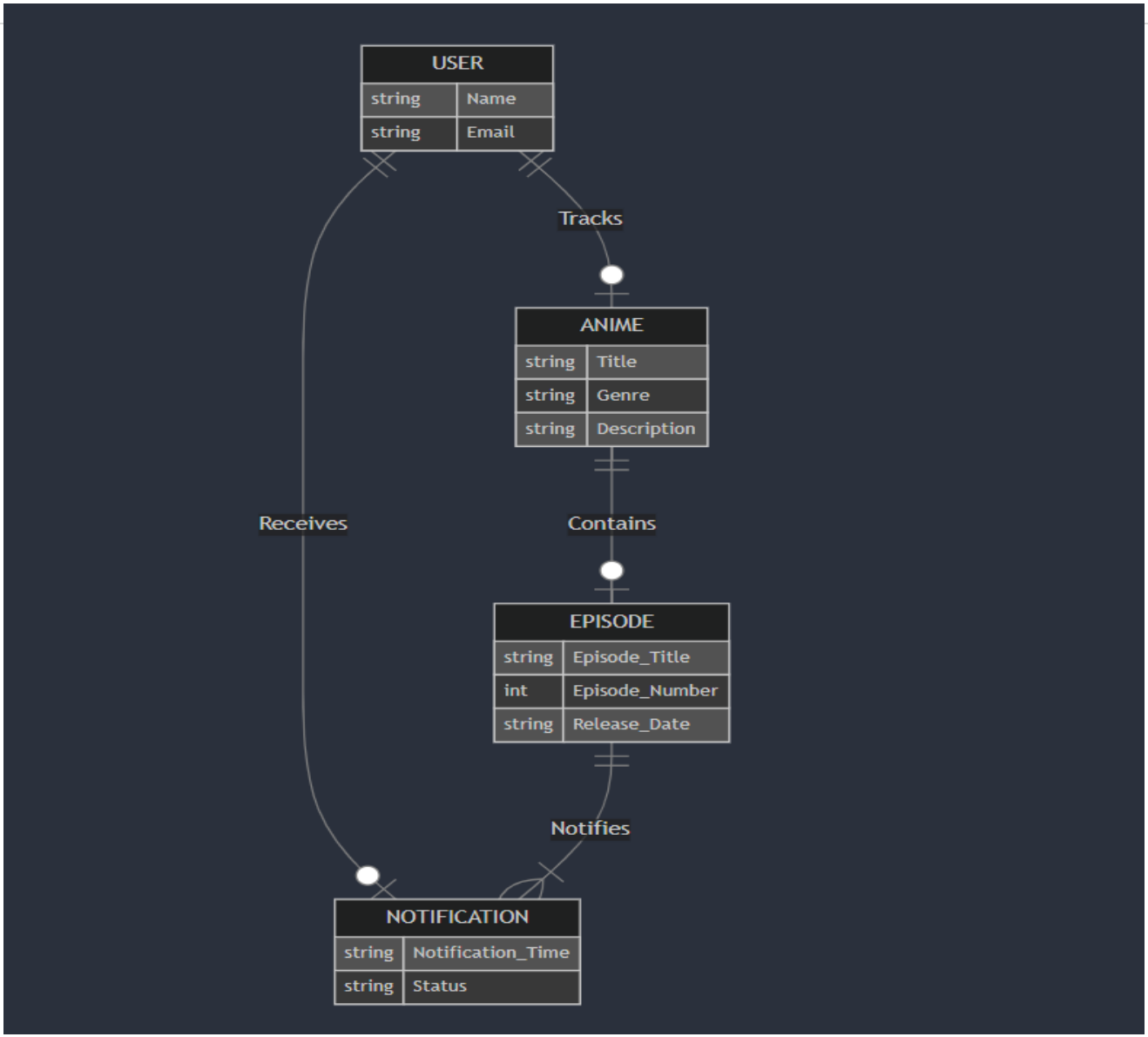


Table Design - ERD



Process Design

Main Process:

- **User Input**: User enters anime preferences.
- **Data Retrieval**: Scrapes latest episode data.
- **Data Organization**: Organizes episode details.
- **Notifications**: Sends real-time updates to users.

Sub Processes:

- **Web Scraping**: Collects episode data.
- **User Preferences**: Manages user settings.
- **Notification Delivery**: Sends timely alerts.

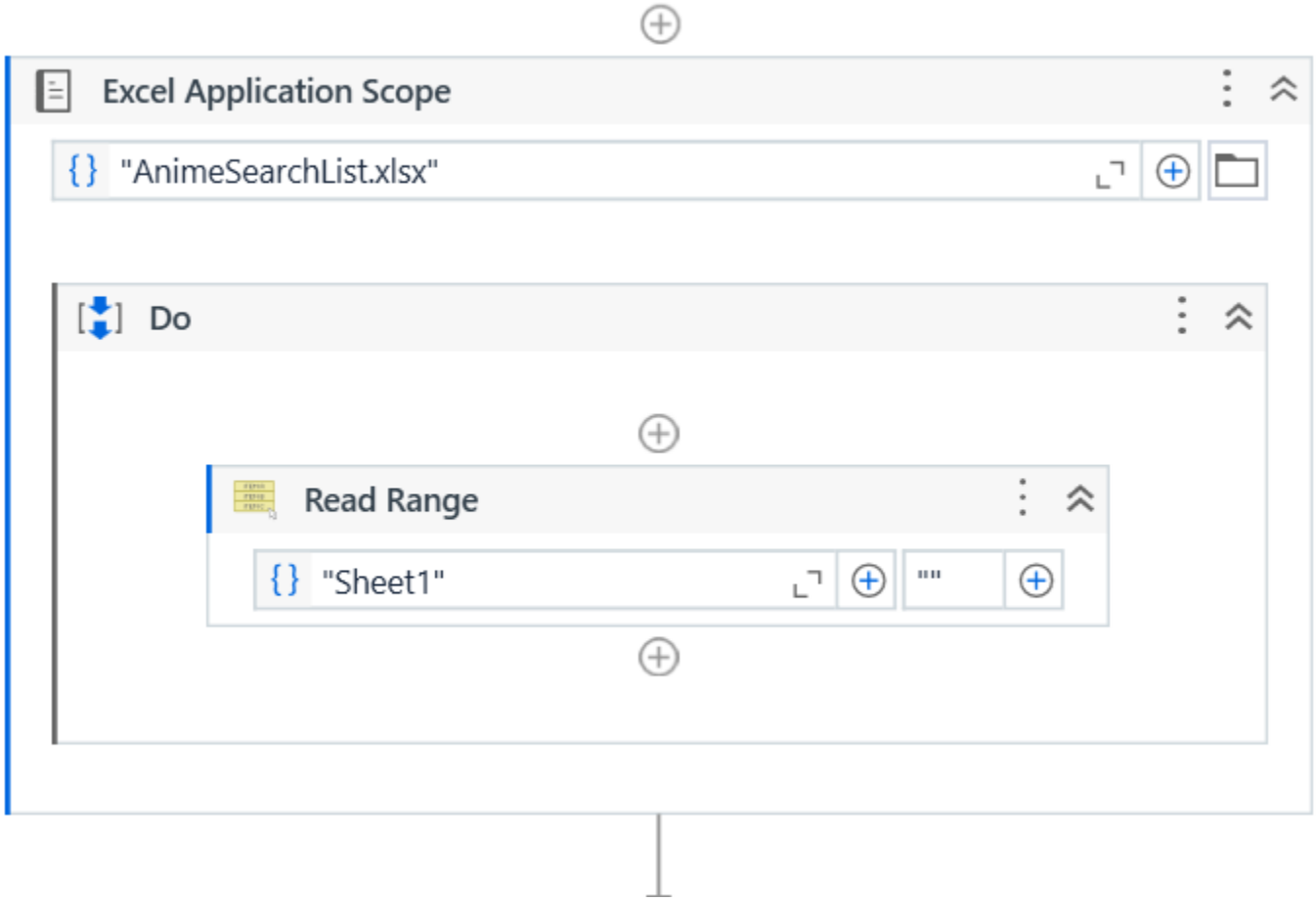
Implementation

Implementation of Module 1: User Input and Preferences Handling in UiPath

Description:

- In this module, the bot captures the user's input, such as the anime title and genre, to track specific series.
- The input is gathered through an interactive UiPath workflow that prompts the user for anime preferences.
- These preferences are stored and used to match episode releases for sending notifications.

Implementation



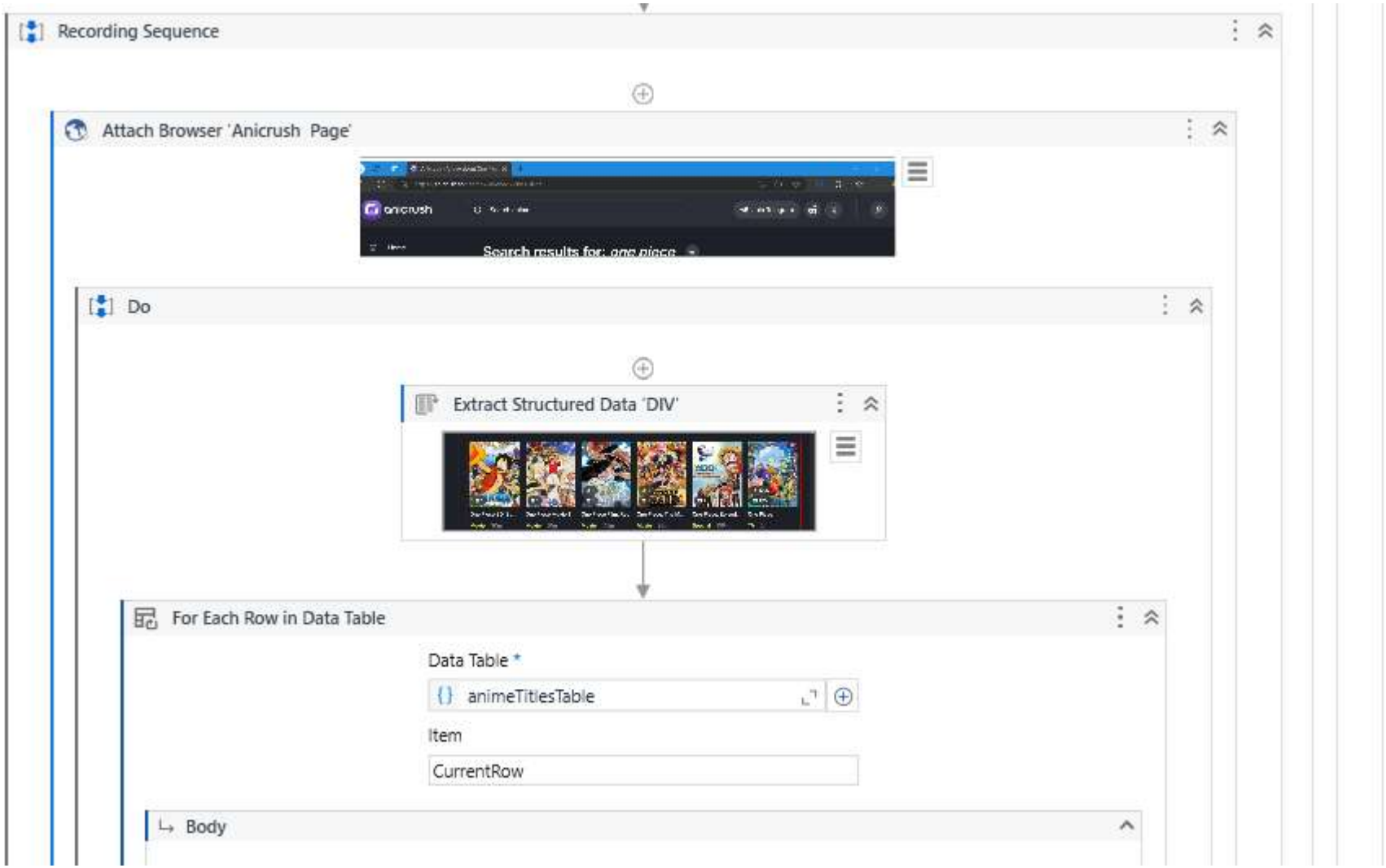
Implementation

Implementation of Module 2: Data Scraping and Notification System in UiPath

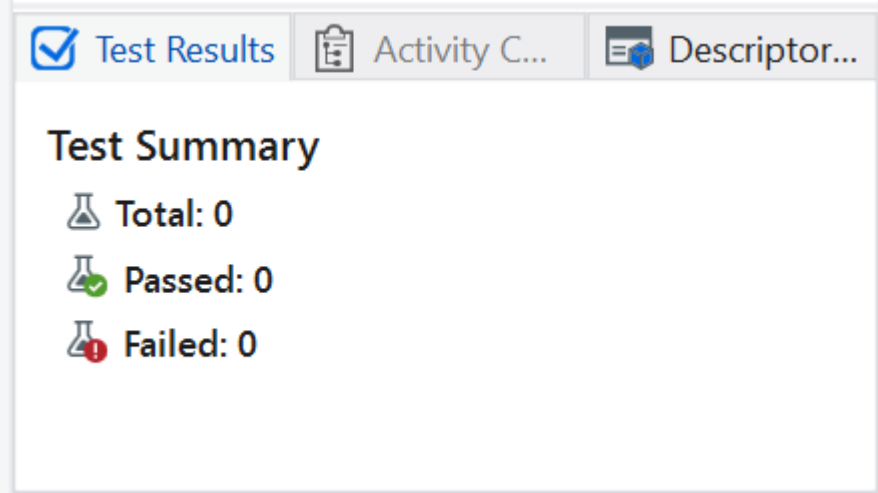
Description:

- This module involves scraping anime episode data from a website using **UiPath's Web Scraping** or **Data Scraping** activities.
- The bot checks for new episode releases, extracts relevant details like the release date, episode number, and platform.
- Once new episodes are detected, the bot sends notifications to users based on their saved preferences.

Implementation



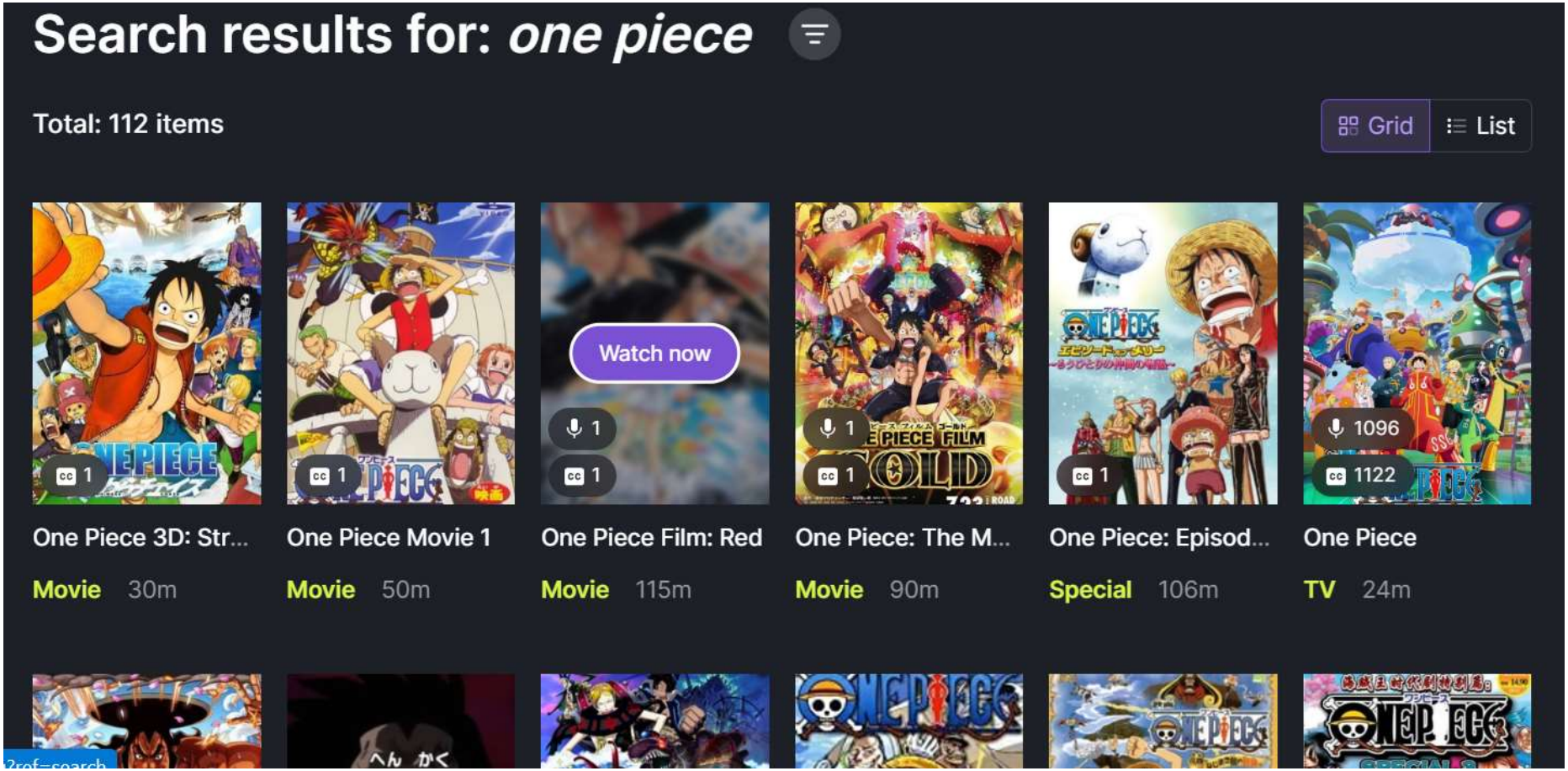
Testing


Test Results
Activity C...
Descriptor...
Test Summary
Total: 0
Passed: 0
Failed: 0

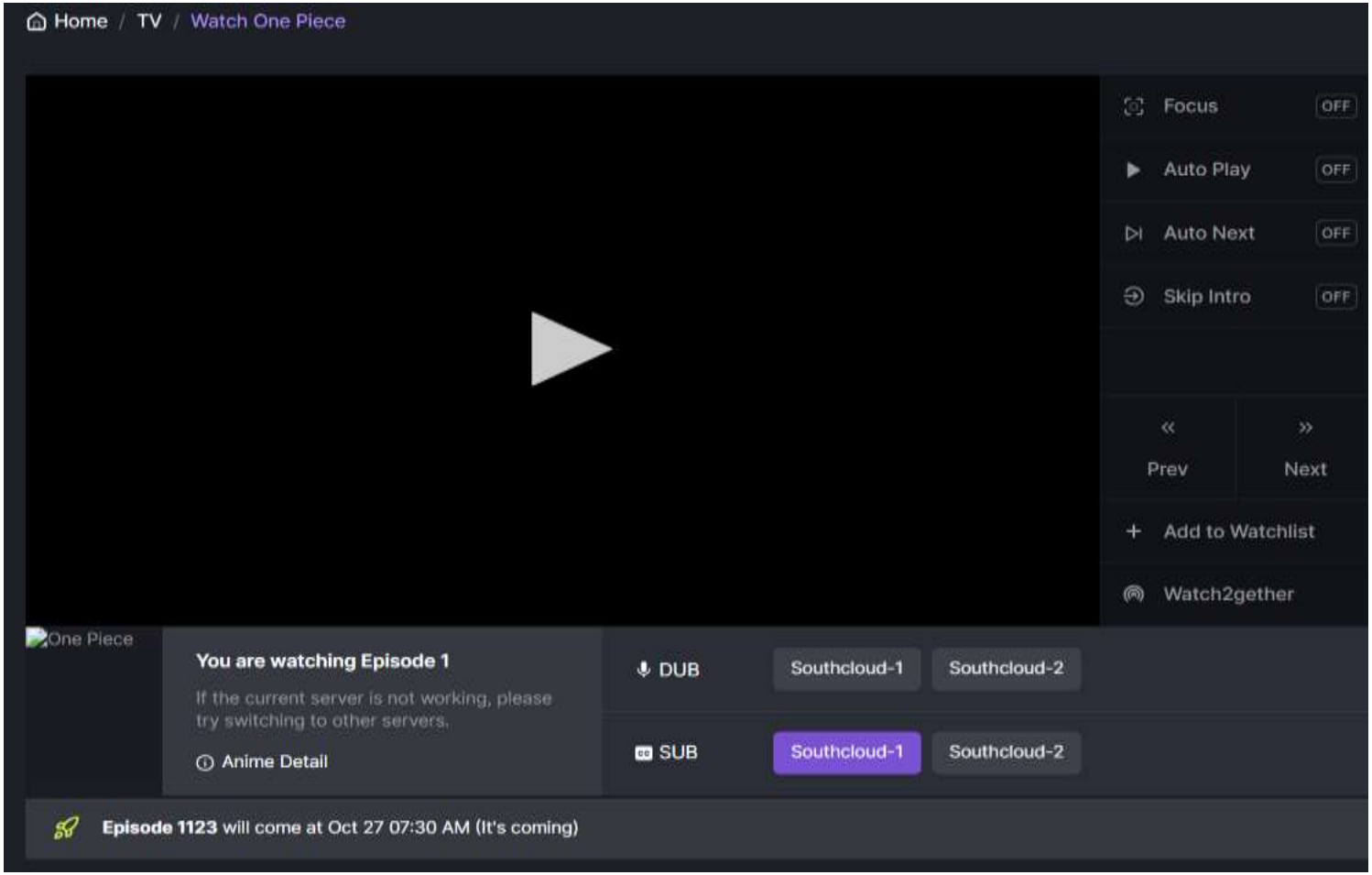
Testing


anicrush
One Piece
Suggestion: Dandadan, Blue Lock Season 2, Overflow (Uncensored), Bleach, Re:ZERO -Starting Life in Another World-, Bleach: Thousand-Year Blood War Arc, Jujutsu Kaisen 2nd Season, Blue Lock, Yakuza Fiancé, Bleach: Thousand-Year Blood War - The Conflict
Enter Anicrush

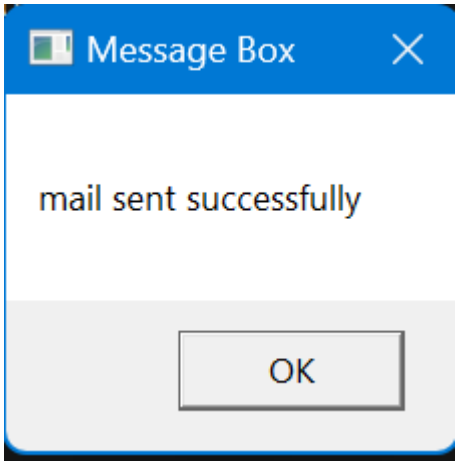
Testing

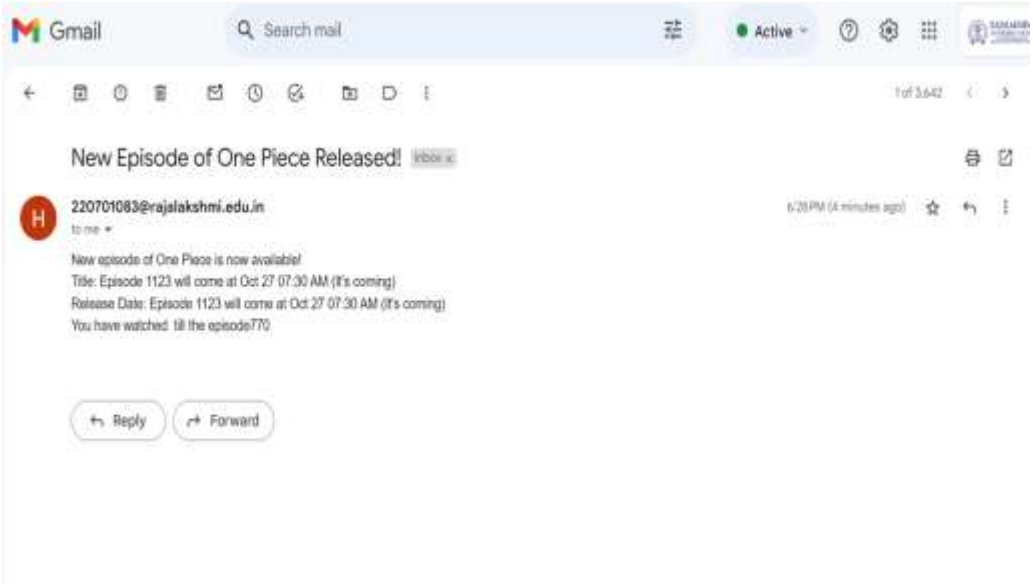

Search results for: one piece
Total: 112 items
Grid
List
Watch now
One Piece 3D: Str...
Movie 30m
One Piece Movie 1
Movie 50m
One Piece Film: Red
Movie 115m
One Piece: The M...
Movie 90m
One Piece: Episod...
Special 106m
One Piece
TV 24m

Testing


Home / TV / Watch One Piece
Focus OFF
Auto Play OFF
Auto Next OFF
Skip Intro OFF
Prev
Next
Add to Watchlist
Watch2gether
One Piece
You are watching Episode 1
If the current server is not working, please try switching to other servers.
Anime Detail
DUB
Southcloud-1
Southcloud-2
SUB
Southcloud-1
Southcloud-2
Episode 1123 will come at Oct 27 07:30 AM (It's coming)

Testing


Message Box
mail sent successfully
OK


Gmail
Search mail
Active
New Episode of One Piece Released!
220701083@rajalakshmi.edu.in
to me
New episode of One Piece is now available!
Title: Episode 1123 will come at Oct 27 07:30 AM (It's coming)
Release Date: Episode 1123 will come at Oct 27 07:30 AM (It's coming)
You have watched till the episode770
Reply
Forward

Conclusions

The **Anime Episode Tracker** project leverages **UiPath Studio** to automate the process of tracking anime episodes, ensuring users receive timely notifications about new releases. By scraping data from popular anime websites and matching it with user preferences, the bot streamlines episode tracking, saving time and enhancing the anime-watching experience.The project highlights the potential of **Robotic Process Automation (RPA)** in improving content tracking and offering a more efficient and user-friendly experience.

Future Enhancement

Integration with Multiple Platforms:
Expand the bot's functionality to track anime episodes across multiple streaming platforms like Netflix, Crunchyroll, and Funimation, providing users with a more comprehensive tracking experience.

User Personalization:
Implement AI-based recommendations to suggest new anime titles based on the user's watch history and preferences, further enhancing the personalized anime-watching experience.

IEEE Paper

"Robotic Process Automation: A Scientific and Industrial Systematic Mapping Study"

This paper reviews various applications of Robotic Process Automation (RPA) across industries, exploring the potential for automating repetitive tasks such as episode tracking in entertainment systems.

Link to paper

"Towards a Process Analysis Approach to Adopt Robotic Process Automation"

This paper offers a structured methodology for adopting RPA within organizations, which can be applied to the development of your automation system for tracking anime episodes.

Link to paper

References

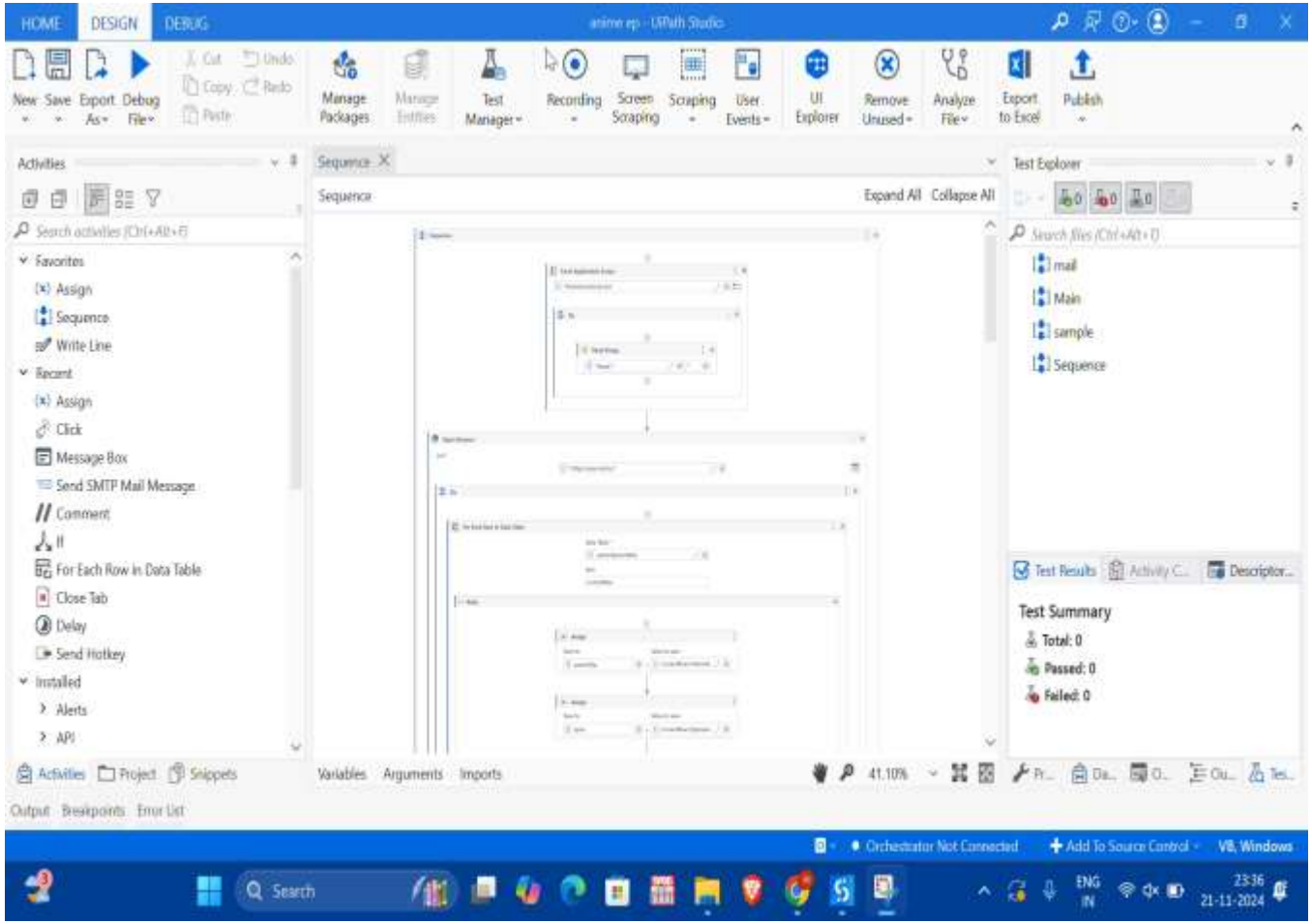
Manning, C. D., Raghavan, P., & Schütze, H. (2008). *Introduction to Information Retrieval*. This textbook is a comprehensive resource on information retrieval techniques, which can assist in developing the search and categorization features for tracking episodes. It is valuable for designing the backend system that organizes anime episodes and helps users find content efficiently.

Postel, J. B. (1982). *RFC 821 - Simple Mail Transfer Protocol (SMTP)*. This document outlines the standard for SMTP, which could be used for sending notifications or updates to users about new episodes in the anime episode tracker.

Queries

Data Scraping: Challenges in extracting episode data from different sources.
Notifications: Setting up real-time alerts for new episodes.
User Input: Handling search queries with typos or missing details.

Demonstration



Thank You