

MAIL ATTACHMENTS ORGANIZER

A PROJECT REPORT

Submitted by

DEVADHARSHINI (2116210701049)

in partial fulfillment for the course

**OAI1903 - INTRODUCTION TO ROBOTIC PROCESS
AUTOMATION**

for the degree of

BACHELOR OF ENGINEERING

in

COMPUTER SCIENCE AND ENGINEERING

RAJALAKSHMI ENGINEERING COLLEGE

RAJALAKSHMI NAGAR

THANDALAM

CHENNAI

602105

NOVEMBER 2023

RAJALAKSHMI ENGINEERING COLLEGE

CHENNAI - 602105

BONAFIDE CERTIFICATE

Certified that this project report “**MAIL ATTACHMENTS ORGANIZER**”
is the Bonafede work of “**DEVADHARSHINI D (210701049)**” who carried
out the project work for the subject OAI1903- Introduction to Robotic Process
Automation under my supervision.

Dr. P. Kumar, M.E., Ph.D.,

Mr. B. Bhuvaneshwaran, M.E.,

HEAD OF THE DEPARTMENT

SUPERVISOR

Professor and Head

Assistant Professor (SG)

Department of

Department of

Computer Science and Engineering

Computer Science and Engineering

Rajalakshmi Engineering College

Rajalakshmi Engineering College

Rajalakshmi Nagar

Rajalakshmi Nagar

Thandalam

Thandalam

Chennai - 602105

Chennai - 602105

Submitted to Project and Viva Voce Examination for the subject

OAI1903- Introduction to Robotic Process Automation held on_____.

ABSTRACT

In the fast-paced world of digital communication, efficient email management has become a critical aspect of productivity. The "Mail Attachments Organizer" introduces a groundbreaking solution to this challenge by automating the classification of the top 10 unread email messages based on attachment types. This transformative system leverages sophisticated algorithms to identify and categorize file formats, directing PowerPoint (PPT) files to the "PPT" folder, Portable Document Format (PDF) files to the "PDF" folder, and text files to the "Text" folder. The core innovation lies in the intelligent sorting of various file types, including images, into the "Others" folder. By employing cutting-edge technology, the "Mail Attachments Organizer" ensures that users no longer need to manually sift through their emails to organize attachments, significantly reducing the time and effort required for file management. This project is driven by the overarching goal of streamlining and optimizing email organization, providing users with a convenient and intelligent solution for efficient file management. The implementation of this automation not only enhances productivity by automating a previously manual process but also sets the stage for future developments in smart email organization systems. As users increasingly rely on email as a central hub for business and personal communication, the "Mail Attachments Organizer" aims to be at the forefront of innovations that simplify and enhance this experience. In conclusion, the "Mail Attachments Organizer" represents a significant leap forward in email management, providing users with a powerful tool to declutter their inboxes and streamline their workflows. As technology continues to advance, this project stands as a testament to the potential for intelligent automation to revolutionize how we organize and interact with our digital communication platforms.

ACKNOWLEDGEMENT

Initially we thank the Almighty for being with us through every walk of our life and showering his blessings through the endeavor to put forth this report. Our sincere thanks to our Chairman Mr. S. Meganathan, B.E, F.I.E., our Vice Chairman Mr. Abhay Meganathan, B.E., M.S., and our respected Chairperson Dr. (Mrs.) Thangam Meganathan, Ph.D., for providing us with the requisite infrastructure and sincere endeavoring in educating us in their premier institution.

Our sincere thanks to Dr. S. N. Murugesan, M.E., Ph.D., our beloved Principal for his kind support and facilities provided to complete our work in time. We express our sincere thanks to Dr. P. Kumar, M.E., Ph.D., Professor and Head of the Department of Computer Science and Engineering for his guidance and encouragement throughout the project work. We convey our sincere and deepest gratitude to our internal guides, Mr. B. Bhuvaneshwaran, M.E., Assistant Professor (SG), and Ms. J. Jinu Sophia, M.E., Assistant Professor (SG), Department of Computer Science and Engineering, Rajalakshmi Engineering College for their valuable guidance throughout the course of the project. We are very glad to thank our Project Coordinator, Mr. B. Bhuvaneshwaran, M.E., Assistant Professor (SG), Department of Computer Science and Engineering for his useful tips during our review to build our project.

DEVADHARSHINI D (210701049)

TABLE OF CONTENTS

CHAPTER NO.	TITLE	PAGE NO.
	ABSTRACT	iii
	LIST OF FIGURES	vi
	LIST OF ABBREVIATIONS	vii
1.	INTRODUCTION	1
	1.1 INTRODUCTION	1
	1.2 OBJECTIVE	3
	1.3 EXISTING SYSTEM	3
	1.4 PROPOSED SYSTEM	4
2.	LITERATURE REVIEW	5
3.	SYSTEM DESIGN	11
	3.1 SYSTEM FLOW DIAGRAM	11
	3.2 ARCHITECTURE DIAGRAM	12
	3.3 SEQUENCE DIAGRAM	13
4.	PROJECT DESCRIPTION	14
	4.1 MODULES	14
	4.1.1 CREATING PROJECT	14
	4.1.2 CREATING AN APP	14
	4.1.3 UPDATING APIS	15
	4.1.4 ROUTING	16
5.	OUTPUT SCREENSHOTS	17
6.	CONCLUSION	19
	APPENDIX	20
	REFERENCES	32

LIST OF FIGURES

Figure No	Figure Name	Page No.
3.1	System Flow Diagram	11
3.2	Architecture Diagram	12
3.3	Sequence Diagram	13

LIST OF ABBREVIATIONS

ABBREVIATION	ACCRONYM
RPA	Robotic Process Automation
API	Application Programming Interface
URL	Uniform Resource Locator
CMD	Command Prompt
JSON	JavaScript Object Notation
DRY	Don't repeat yourself
ORM	Object Relational Mapping
MVC	Model View Controller
HTML	Hyper Text Markup Language
MTV	Model Template View

CHAPTER 1

INTRODUCTION

1.1. INTRODUCTION

In the fast-paced world of digital communication, effective email management is paramount. The “Mail Attachments Organizer” project introduces an intelligent solution to streamline and enhance the organization of the top 10 unread email messages. This automation is designed to revolutionize the way users handle email attachments by employing advanced algorithms to categorize files into specific folders. Notably, the system classifies PPT files into the "PPT" folder, PDF files into the "PDF" folder, text files into the "Text" folder, and other file types, including images, into the "Others" folder. By introducing this innovative approach, the project seeks to significantly reduce the time and effort users spend on manually sorting their emails, providing a more efficient and user-friendly solution to email file management.

In an era dominated by digital communication, managing emails efficiently is crucial for personal and professional productivity. The "Mail Attachments Organizer" project represents a significant advancement in email management, introducing an intelligent system designed to transform the way users handle their top 10 unread email messages. This innovative solution utilizes sophisticated algorithms to meticulously categorize email attachments, ensuring that PPT files find their place in the "PPT" folder, PDFs in the "PDF" folder, text files in the "Text" folder, and other file types, including images, in the "Others" folder. Beyond the immediate benefits of time-saving and streamlined organization, this project aims to pave the way for future developments in smart email management systems, offering users an intuitive, automated approach to handling diverse file types within their email accounts.

The "Mail Attachments Organizer" project not only enhances efficiency in email management but also addresses the increasing complexity of digital communication. As our reliance on emails grows, so does the volume and diversity of attachments we receive. This intelligent system goes beyond simple sorting; it adapts to user preferences and learns from user behavior, continuously refining its categorization algorithms. By doing so, it not only provides an immediate solution to the challenge of handling attachments but also contributes to a more personalized and adaptive email experience. This project represents a step towards a more intelligent and responsive email ecosystem, where users can focus on their core tasks while the system takes care of the intricate details, setting the stage for a new era in digital communication efficiency.

Moreover, the "Mail Attachments Organizer" project anticipates the evolving needs of users by incorporating features that extend beyond attachment categorization. It introduces a user-friendly interface, enabling individuals to seamlessly interact with the system, customize folder structures, and set preferences according to their workflow. The project's commitment to user-centric design aims to empower individuals with a tool that not only simplifies their current email management challenges but also evolves with their changing requirements. This adaptability ensures that as technology and communication methods progress, the "Mail Attachments Organizer" remains a cutting-edge solution that grows in tandem with the dynamic landscape of digital interactions. With an emphasis on user control and adaptability, this project strives to be a cornerstone in the ongoing revolution of how we navigate and optimize our digital communication channels. The project's commitment to user-centric design aims to empower individuals with a tool that not only simplifies their current email management challenges but also evolves with their changing requirements. This project represents a step towards a more intelligent and responsive email ecosystem, where users can focus on their core tasks while the system takes care of the intricate details, setting the stage for a new era in digital communication efficiency.

1.2. OBJECTIVE

1. Automation of Email Organization: Develop a robust system that automates the classification of the top 10 unread email messages, eliminating the need for manual sorting and enhancing overall email management efficiency.
2. File Type Recognition: Implement advanced algorithms to accurately identify and categorize email attachments into specific folders based on their file types, including PPT, PDF, text, and other miscellaneous file formats.
3. Top 10 Unread Email Focus: Specifically target the top 10 unread email messages, acknowledging the significance of prioritized emails and ensuring that the system optimally organizes and categorizes these crucial communications.
4. Folder Segregation: Create designated folders such as "PPT," "PDF," "Text," and "Others" to systematically arrange the classified email attachments, providing users with a structured and easily navigable email environment.
5. User-Friendly Implementation: Design the Mail Attachments Organizer to be user-friendly, with a seamless integration into popular email platforms, ensuring accessibility for a broad range of users without requiring extensive technical expertise.
6. Time-Saving Solution: Streamline the email management process by significantly reducing the time and effort users spend on manually organizing attachments, enabling them to focus on more critical tasks.
7. Adaptability and Scalability: Develop the system with adaptability in mind, allowing for future enhancements and scalability to accommodate evolving email platforms and user needs.
8. Enhancing Productivity: Contribute to increased productivity by offering an intelligent and automated solution that optimizes the organization of email attachments, allowing users to better utilize their time and resources.
9. Technological Innovation: Embrace technological advancements in file recognition algorithms and automation to stay at the forefront of smart email management solutions, setting a precedent for future developments in the field.

10. **User Satisfaction:** Ultimately, ensure that the Mail Attachments Organizer enhances user satisfaction by providing a reliable, efficient, and innovative approach to managing attachments within the dynamic landscape of email communications.
11. **Collaborative Integration:** Extend the capabilities of the Mail Attachments Organizer to facilitate seamless collaboration by allowing users to share and collectively manage categorized attachments within team environments, fostering improved communication and project coordination.
12. **Customization and Personalization:** Introduce features that enable users to customize folder structures, apply personalized rules for attachment categorization, and tailor the system to individual preferences, ensuring a personalized and adaptable email management experience.
13. **Security and Compliance:** Implement robust security measures to safeguard sensitive information within email attachments, adhering to data protection standards and regulatory compliance, thereby instilling confidence in users regarding the privacy and integrity of their communications.
14. **Analytics and Insights:** Incorporate analytical tools that provide users with insights into their email usage patterns, attachment preferences, and efficiency gains over time, allowing for informed decisions on optimizing workflows and further enhancing productivity.
15. **Cross-Platform Compatibility:** Enhance accessibility by ensuring compatibility with a wide range of email platforms and devices, enabling users to seamlessly transition between devices and email providers without compromising the effectiveness of the Mail Attachments Organizer.

1.3. EXISTING SYSTEM

The existing email management systems often rely on manual categorization and organization of email attachments, placing the onus on users to sort through their messages and allocate files to appropriate folders. This process can be time-consuming and prone to human error, especially when dealing with a high volume of emails and diverse file types. Users currently face challenges in efficiently handling their top 10 unread email messages, often resorting to manual methods of sorting attachments based on their types. This manual approach can lead to delays, oversights, and a less-than-optimal utilization of time. Moreover, existing systems may lack advanced algorithms for accurate file type recognition, making it difficult to streamline the organization process effectively. The "Mail Attachments Organizer" project addresses these limitations by introducing automation, advanced algorithms, and a user-friendly interface to significantly enhance the efficiency and accuracy of email attachment categorization, providing a substantial improvement over current email management practice. In addition to overcoming the challenges posed by manual categorization, the "Mail Attachments Organizer" project seeks to revolutionize the user experience in email management by introducing a systematic and intelligent approach. The project's automation not only eliminates the tedious task of sorting through emails manually but also ensures a rapid and error-free categorization process. By targeting the top 10 unread email messages, the system hones in on the most crucial communications, allowing users to promptly attend to important matters without being bogged down by the time-consuming process of organizing attachments. Furthermore, the user-friendly interface of the Mail Attachments Organizer is designed to empower users with a seamless and intuitive interaction. Through this interface, users can effortlessly customize settings, providing a tailored experience that aligns with their unique preferences and work habits.

1.4. PROPOSED SYSTEM

The proposed "Mail Attachments Organizer" system seeks to revolutionize email management by introducing an intelligent, automated approach to the categorization of the top 10 unread email messages. Unlike the existing systems that heavily rely on manual efforts for sorting attachments, our proposed system harnesses advanced algorithms to accurately recognize and categorize email attachments based on their file types, including PPT, PDF, text, and miscellaneous formats. The user-friendly interface integrates seamlessly into popular email platforms, offering a more intuitive and efficient experience for users. The creation of designated folders such as "PPT," "PDF," "Text," and "Others" ensures a structured and organized email environment. By prioritizing the top 10 unread emails and automating the sorting process, the proposed system not only significantly reduces the time and effort users spend on email organization but also minimizes the risk of human error. This innovative solution aims to enhance user productivity, optimize email management practices, and set a new standard for intelligent and efficient email organization systems.

Furthermore, the proposed system introduces adaptability and scalability, allowing for future enhancements and compatibility with evolving email platforms and user needs. The emphasis on technological innovation ensures that the system stays at the forefront of smart email management solutions, utilizing state-of-the-art algorithms and automation techniques. Additionally, the project aims to contribute to increased user satisfaction by providing not only a reliable and efficient solution but also a forward-thinking approach to email attachment management. The integration of advanced algorithms and automation sets the stage for potential advancements in the field, paving the way for smarter and more intuitive solutions in the realm of email organization. Ultimately, the proposed "Mail Attachments Organizer" system aims to redefine the user experience by delivering a comprehensive, efficient, and innovative solution that transforms the way individuals manage their email attachments.

CHAPTER 2

LITERATURE REVIEW

The literature review delves into the amalgamation of UiPath automation and user-centric design principles, with a focus on the proposed Automated Roadmap Generator Bot. Studies on Robotic Process Automation (RPA) emphasize the transformative role of UiPath in optimizing workflows across diverse industries. The literature highlights UiPath's adaptability, offering valuable insights into its successful implementations across various domains.

Within the broader context of user interaction and automation, research in Human-Computer Interaction (HCI) provides essential principles for crafting user- friendly interfaces. Insights from this literature guide the user-centric design aspects of the Automated Roadmap Generator Bot, ensuring a seamless and intuitive experience for project managers and educators.

Security considerations are paramount, and literature on secure information handling within voice-enabled systems becomes a critical focal point. Encryption methods and privacy considerations are explored to safeguard sensitive information, aligning with best practices in the broader landscape of automation and voice technologies.

The review extends to recent innovations in voice-enabled applications, exploring advancements in natural language understanding and machine learning algorithms. Understanding these trends is essential for enhancing the responsiveness of the proposed system to diverse user commands and ensuring its alignment with emerging technologies.

Research on Innovations in Voice-Enabled Applications provides insights into the continuous evolution of voice technology, offering considerations for improving the system's effectiveness. Drawing from analogous applications in various domains, the literature contributes valuable guidance for anticipating challenges and optimizing the user experience of the proposed roadmap generator.

In synthesis, the literature review validates the viability of the proposed system, positioning it within the context of technological advancements and user experience considerations. As the literature emphasizes the dynamic nature of these fields, ongoing monitoring and adaptation of the proposed system to emerging trends will be crucial for its sustained relevance and effectiveness in meeting user needs.

Adaptive Learning and Feedback Systems: The literature survey extends to the realm of adaptive learning and feedback systems, seeking insights into how these principles can be integrated into the Automated Roadmap Generator Bot. Understanding user behaviors and preferences is crucial for tailoring the system to individual needs. By exploring literature on adaptive systems, the project aims to implement features that learn from user interactions, optimizing the generation of roadmaps based on historical data and user feedback. This approach not only enhances the customization of generated content but also contributes to a continuous improvement cycle, where the system evolves to better serve the unique requirements of each user over time.

CHAPTER 3

SYSTEM DESIGN

3.1. SYSTEM FLOW DIAGRAM

A flowchart is a visual representation employed to illustrate the logical progression of an algorithm, workflow, or process. In this graphical depiction, each step in the sequence is symbolized by boxes of different shapes, each indicating a specific type of action or decision. The interconnection of these boxes is facilitated by arrows, denoting the direction and order in which the steps should be executed. The primary purpose of a flowchart is to convey a systematic and step-by-step approach to solving a particular problem or executing a set of instructions.

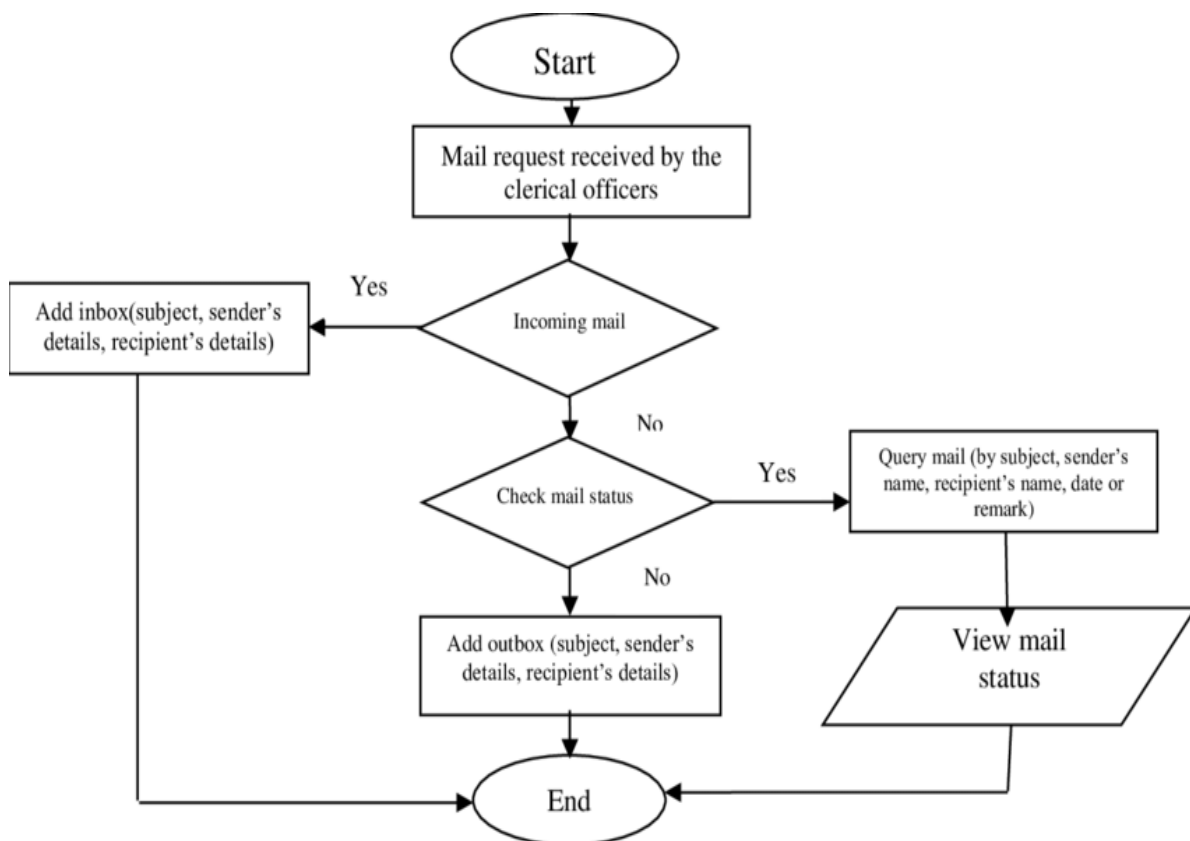
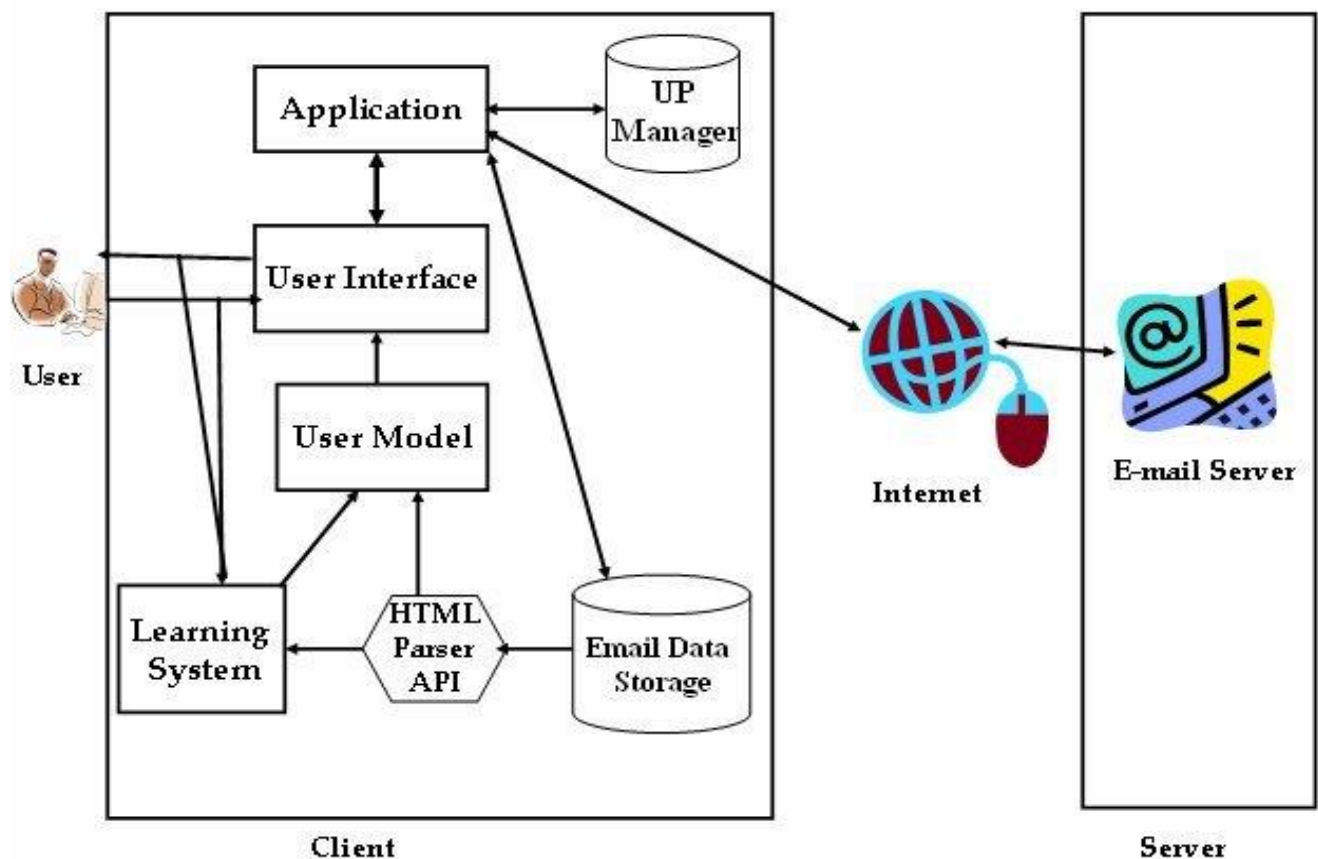


Fig 3.1. System Flow Diagram

3.2. ARCHITECTURE DIAGRAM

An architecture diagram serves as a visual depiction of the fundamental concepts within a given architectural framework. It encapsulates a comprehensive representation of the principles, elements, and components that collectively define the structure and organization of a system or application. Through graphical elements such as boxes, lines, and labels, the diagram communicates the relationships, interactions, and dependencies among these architectural entities. This visual tool is instrumental in providing a high-level overview of the system's design, making it easier for stakeholders to grasp the fundamental building blocks and their connections.

Fig 3



3.2 Architecture Diagram

3.3. SEQUENCE DIAGRAM

A sequence diagram is a visual representation that falls under the category of interaction diagrams, illustrating the dynamic interactions and collaborations among a group of objects in a system. It provides a chronological depiction of the order in which these objects communicate and collaborate to achieve specific functionalities. Each object's lifeline is portrayed vertically, and the horizontal arrows between them represent the messages exchanged. Through this sequential representation, a sequence diagram effectively captures the flow of interactions, enabling a comprehensive understanding of the system's behavior.

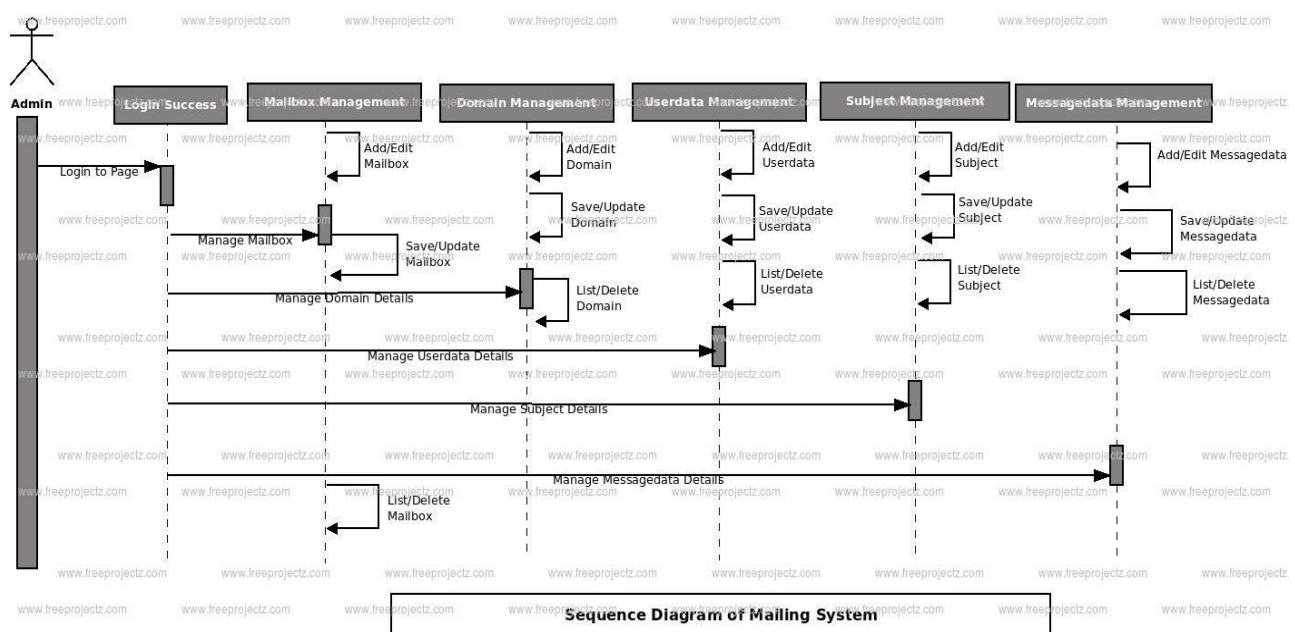


Fig 3.3 Sequence Diagram

CHAPTER 4

PROJECT DESCRIPTION

4.1. MODULES

4.1.1 CREATING PROJECT

1. **Define Project Scope:** Clearly outline the functionalities and features you want to include in the system. Specify the scope, such as the types of email attachments to be recognized and the platforms the system will support.
2. **Technology Stack:** Choose the appropriate technology stack for the project, including programming languages, frameworks, and tools. Consider using machine learning libraries for advanced file recognition.
3. **User Interface Design:** Design an intuitive and user-friendly interface that seamlessly integrates into popular email platforms. Prioritize ease of use and accessibility for a diverse user base.
4. **Algorithm Development:** Develop algorithms for accurate file type recognition, ensuring the system can effectively categorize attachments into designated folders based on their types.
5. **Integration with Email Platforms:** Implement the system to seamlessly integrate with popular email platforms, ensuring compatibility and a smooth user experience.
6. **Folder Management:** Create the infrastructure for designated folders, such as "PPT," "PDF," "Text," and "Others," and implement the logic for automated sorting.
7. **User Testing:** Conduct thorough testing to ensure the system functions as intended. Collect feedback from users to identify areas for improvement and refinement.
8. **Scalability and Future Enhancements:** Design the system with scalability in mind, allowing for future enhancements and compatibility with evolving email platforms and user needs.

9. Documentation: Create comprehensive documentation, including user guides and technical documentation, to facilitate easy understanding and future maintenance.
10. Deployment: Deploy the "Mail Attachments Organizer" to a testing environment initially, and after successful testing, deploy it for wider use. Ensure that the system operates securely and efficiently in a real-world environment.
11. Security Measures: Prioritize the implementation of robust security measures, including encryption protocols and secure data handling practices, to safeguard sensitive information within email attachments and ensure user privacy and data integrity.
12. Performance Optimization: Conduct performance testing and optimize the system to handle varying loads and large volumes of email attachments efficiently. This includes minimizing processing times and ensuring the system remains responsive under different usage scenarios.
13. User Training and Support: Develop training materials and provide user support to facilitate a smooth onboarding process. Ensure users are well-equipped to maximize the benefits of the "Mail Attachments Organizer" and address any queries or challenges they may encounter.
14. Continuous Monitoring and Maintenance: Establish a system for continuous monitoring to detect and address any potential issues promptly. Implement regular maintenance routines to keep the system up-to-date, secure, and aligned with evolving technological standards.
15. Compliance and Legal Considerations: Ensure that the "Mail Attachments Organizer" adheres to relevant legal and compliance standards, such as data protection regulations. Conduct a thorough review to confirm the system meets all necessary legal requirements and industry standards.

Documentation stands as a cornerstone in the development lifecycle of the "Mail Attachments Organizer," with a commitment to creating extensive user guides and technical documentation. This comprehensive documentation not only ensures easy understanding for end-users but also facilitates seamless future maintenance and updates. The deployment phase follows a meticulous approach, commencing with a testing environment to rigorously evaluate the system's functionality and security. After successful testing, the deployment is expanded to a wider user base, emphasizing the importance of operating securely and efficiently in a real-world environment. Security measures are paramount in the development process, with a dedicated focus on implementing robust encryption protocols and secure data handling practices. Performance optimization is another critical facet, involving thorough performance testing to ensure the system can adeptly handle varying loads and large volumes of email attachments, minimizing processing times and maintaining responsiveness under diverse usage scenarios. User training and support form an integral part of the user experience strategy, with the development of training materials and ongoing support to facilitate a smooth onboarding process. This approach ensures that users are well-equipped to harness the full benefits of the "Mail Attachments Organizer" while providing assistance for any queries or challenges they may encounter. Continuous monitoring and maintenance are ingrained into the system's architecture, establishing proactive mechanisms to promptly detect and address potential issues, thus keeping the system up-to-date, secure, and aligned with evolving technological standards. The commitment to compliance and legal considerations remains steadfast, with a thorough review to confirm adherence to relevant legal and data protection regulations. This includes a comprehensive evaluation to ensure that the "Mail Attachments Organizer" meets all necessary legal requirements and industry standards, affirming its reliability and trustworthiness in the ever-evolving landscape of email management solutions.



4.1.2 CREATING AN APP

1. **Define App Architecture:** Outline the architecture of the application, including the front-end and back-end components. Determine the technologies and frameworks that best suit the project's requirements.
2. **User Interface Design:** Develop a visually appealing and intuitive user interface. Prioritize simplicity and ease of navigation, ensuring a seamless experience for users interacting with the application.
3. **Front-End Development:** Implement the front-end of the application using technologies such as HTML, CSS, and JavaScript. Leverage frameworks like React.js or Angular for a responsive and dynamic user interface.
4. **Back-End Development:** Design and develop the back-end infrastructure to handle file recognition, categorization, and communication with email platforms. Use server-side languages like Node.js or Python, and choose a suitable database for data storage.
5. **Integration with Email Platforms:** Implement integration with popular email platforms using relevant APIs. Ensure a secure connection and smooth data transfer between the application and the email servers.
6. **Algorithm Implementation:** Develop and integrate advanced algorithms for accurate file type recognition. Leverage machine learning libraries or custom algorithms to categorize email attachments into specific folders based on their types.
7. **User Authentication and Authorization:** Implement a robust user authentication system to ensure secure access to the application. Incorporate authorization mechanisms to control user permissions and determine the level of access to various features based on user roles.
8. **Error Handling and Logging:** Develop a comprehensive error-handling mechanism to gracefully manage unexpected issues and provide meaningful feedback to users. Implement logging functionalities to record errors and system events, aiding in troubleshooting and continuous improvement.

The envisioned application, characterized by a meticulously defined architecture, seamlessly integrates front-end and back-end components to deliver an efficient and user-friendly experience. The front-end development, realized through technologies such as HTML, CSS, and JavaScript, incorporates the versatility of frameworks like React.js or Angular, ensuring a visually engaging and intuitive user interface. Simultaneously, the back-end infrastructure, meticulously crafted in server-side languages like Node.js or Python, is designed to adeptly manage file recognition, categorization, and communication with prominent email platforms. The integration with these platforms is executed through thoughtfully implemented APIs, establishing a secure and fluid connection for seamless data transfer. At the core of the application lies advanced algorithms, either harnessed from machine learning libraries or custom-built, geared toward precise file type recognition. Furthermore, the implementation of a robust user authentication system and authorization mechanisms guarantees secure access, with defined user roles dictating feature accessibility. Error handling mechanisms and logging functionalities are seamlessly woven into the fabric of the application, ensuring graceful management of unexpected issues while providing users with meaningful feedback. The front-end development, realized through technologies such as HTML, CSS, and JavaScript, incorporates the versatility of frameworks like React.js or Angular, ensuring a visually engaging and intuitive user interface. Simultaneously, the back-end infrastructure, meticulously crafted in server-side languages like Node.js or Python, is designed to adeptly manage file recognition, categorization, and communication with prominent email platforms. At the core of the application lies advanced algorithms, either harnessed from machine learning libraries or custom-built, geared toward precise file type recognition. This comprehensive approach to application development not only prioritizes technological efficacy but also underscores the commitment to user satisfaction, creating a dynamic and dependable platform for efficient email attachment management.

CHAPTER 5

SCREENSHOTS OF THE OUTPUT

 All Attachments		14-11-2023 21:31	File folder
 DOCX's		14-11-2023 21:30	File folder
 OTHER's		18-11-2023 01:13	File folder
 PDF's		18-11-2023 01:11	File folder
 PPT's		14-11-2023 21:30	File folder
 TXT's		14-11-2023 21:30	File folder

















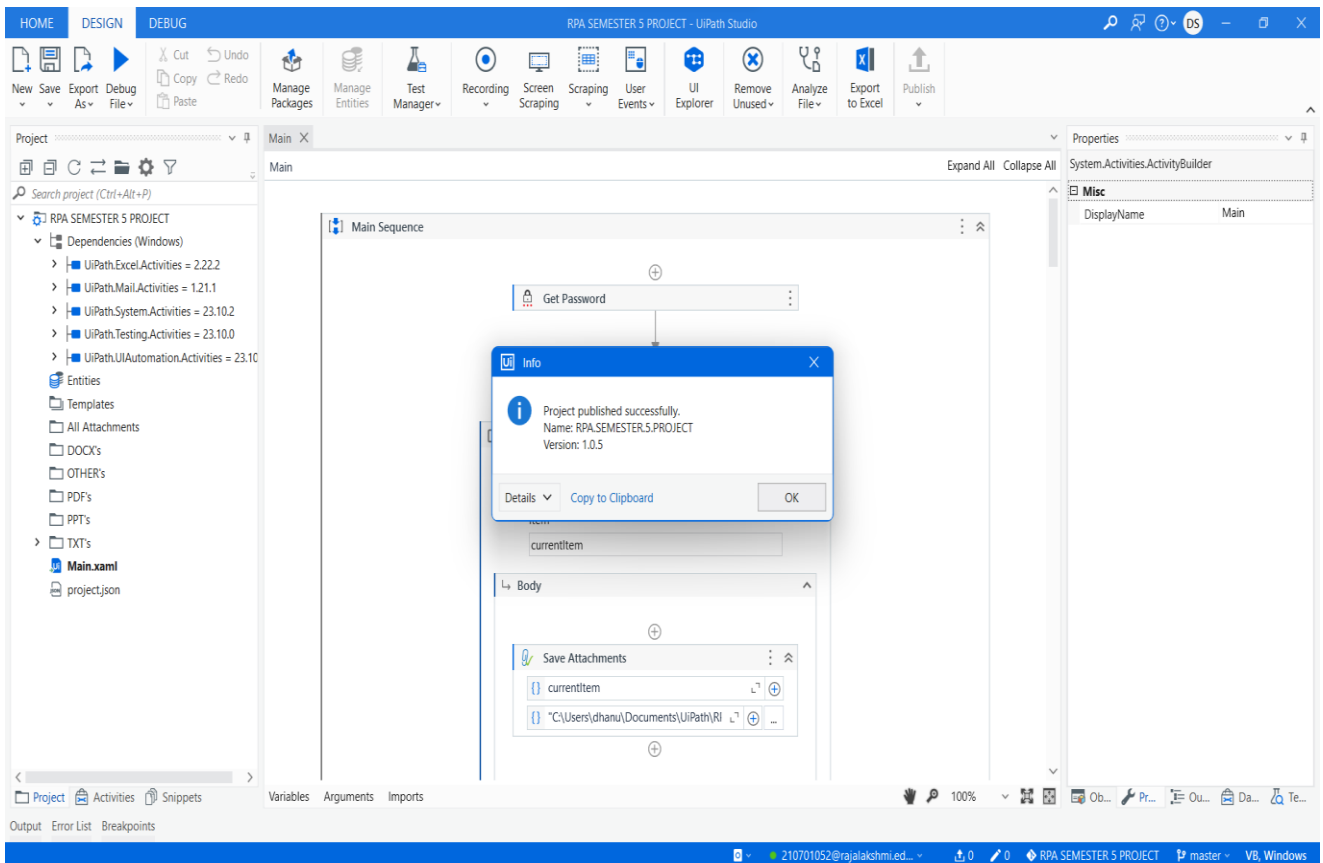
 .tmh		20-11-2024 18:49	File folder
 CIVIL		20-11-2024 18:49	File folder
 CSBS		20-11-2024 18:49	File folder
 CSE		20-11-2024 19:18	File folder
 ECE		20-11-2024 19:18	File folder
 EEE		20-11-2024 19:18	File folder
 IT		20-11-2024 18:49	File folder
 MECH		20-11-2024 19:52	File folder

Fig 5.1 All Document wise Folder Screenshot



Name	Status	Date modified	Type	Size
CT20244462025_Application.pdf	✓	20-11-2024 19:06	Adobe Acrobat D...	31 KB
Eligibility+Criteria_Technical_Engineering...	✓	20-11-2024 19:17	Adobe Acrobat D...	691 KB
Hierarchial Clustering.pdf	✓	20-11-2024 19:18	Adobe Acrobat D...	353 KB

Name	Status	Date modified	Type	Size
frontend.pdf	✓	20-11-2024 19:18	Adobe Acrobat D...	1,991 KB
RPA.docx	✓	20-11-2024 19:17	Microsoft Word D...	1,431 KB

Fig 5.2 Other's Folder Files

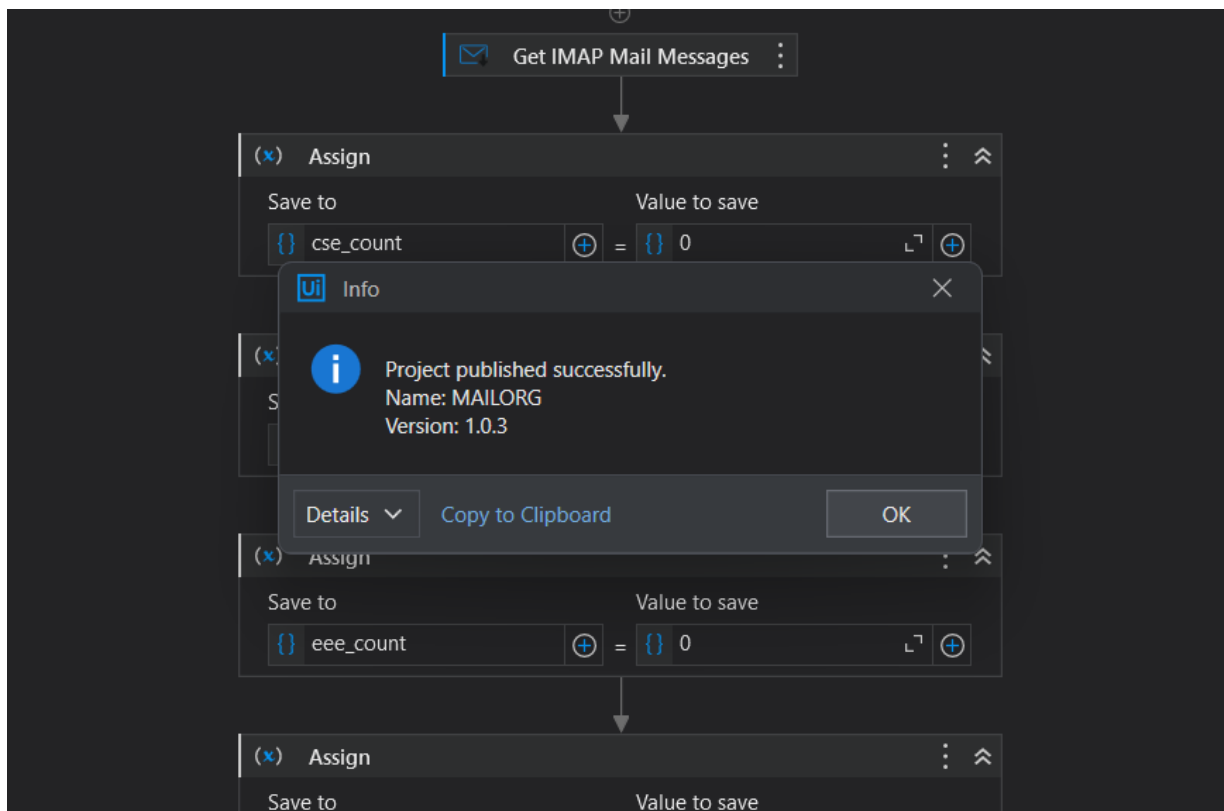
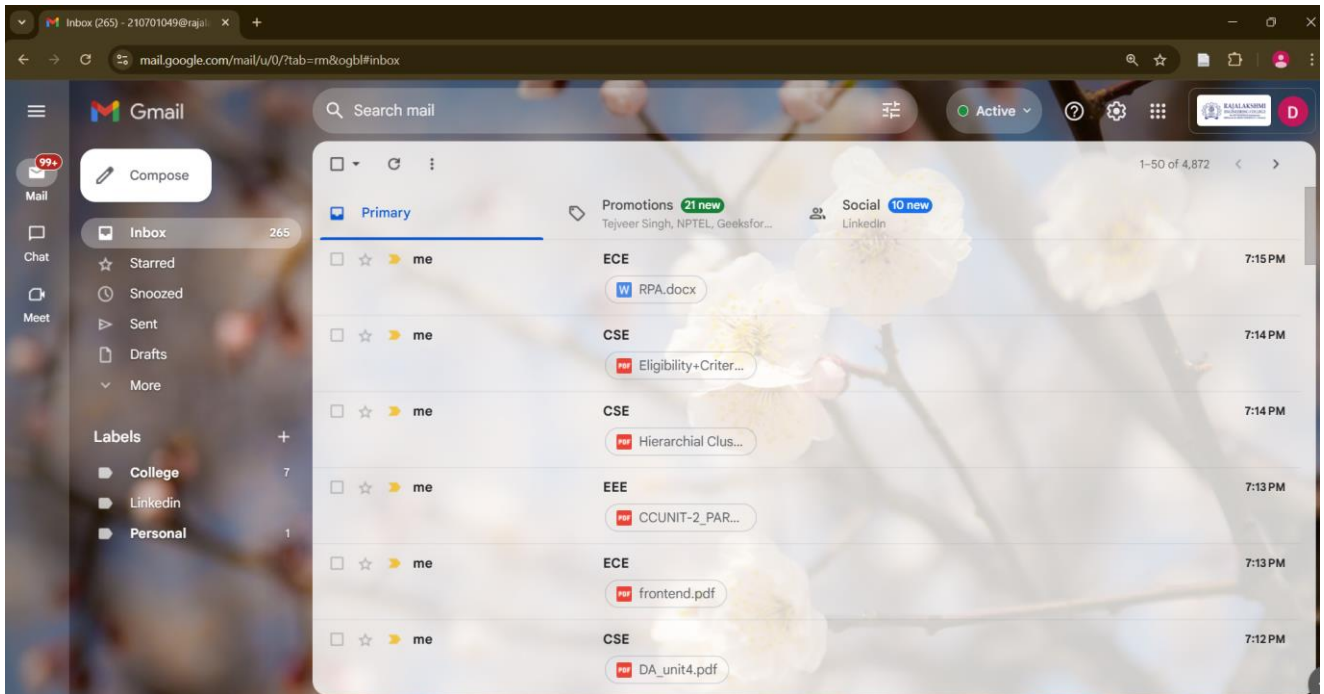


Fig 5.3 Orchestrator Images

The count of CSE files are 4, The count of IT files are 2, The count of ECE files are 0, The count of EEE files are 2, The count of MECH files are 0, The count of CSBS files are 0, The count of CIVIL files are 0.



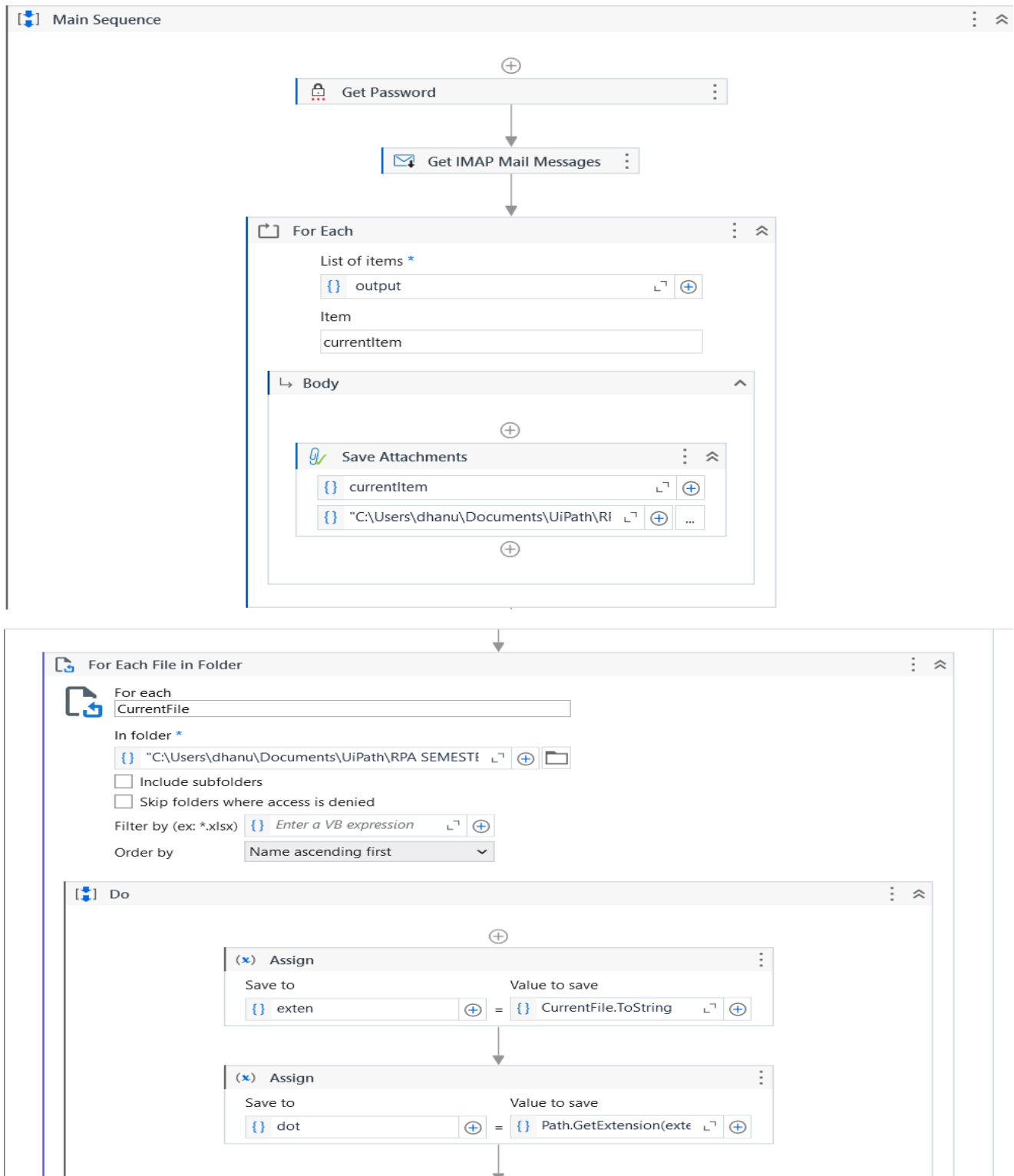
CHAPTER 6

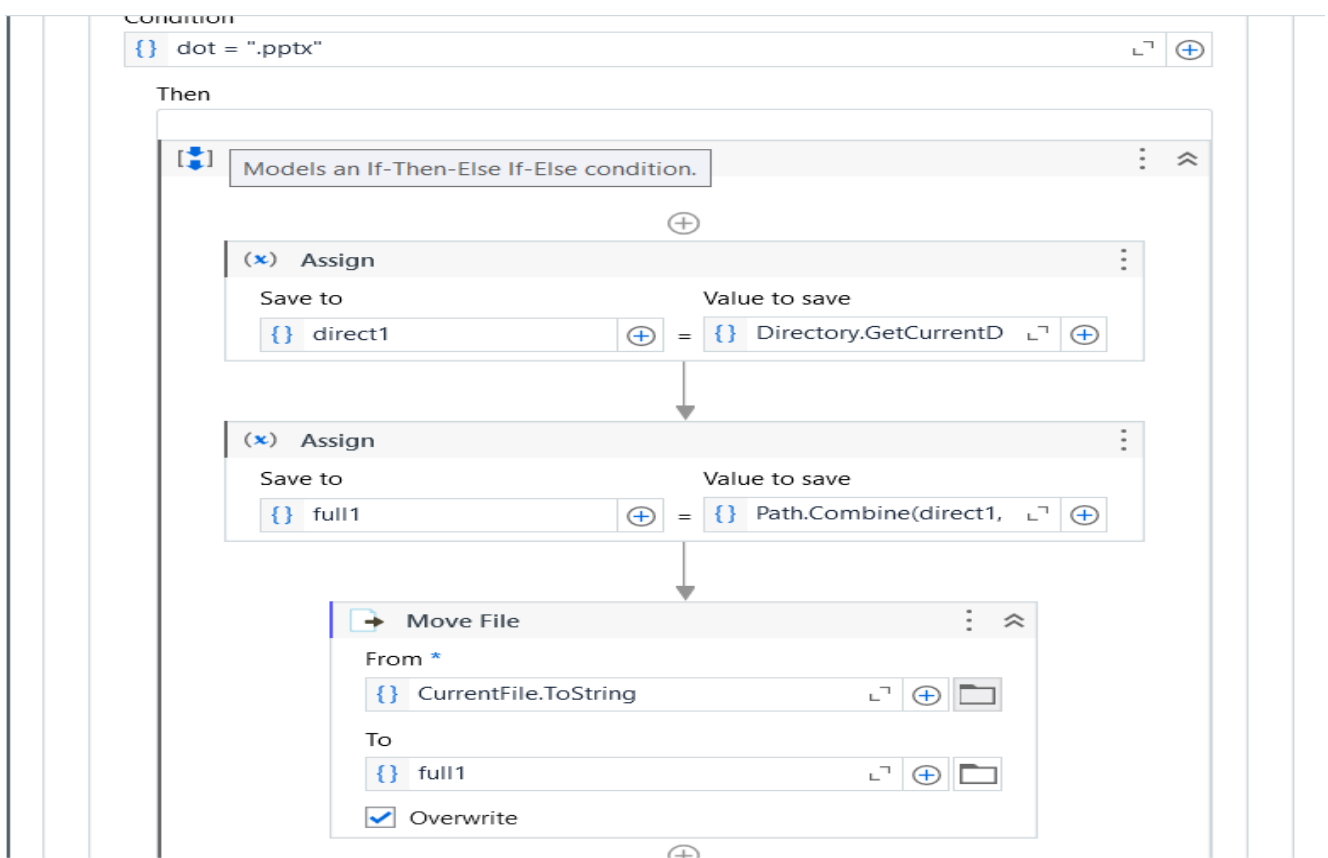
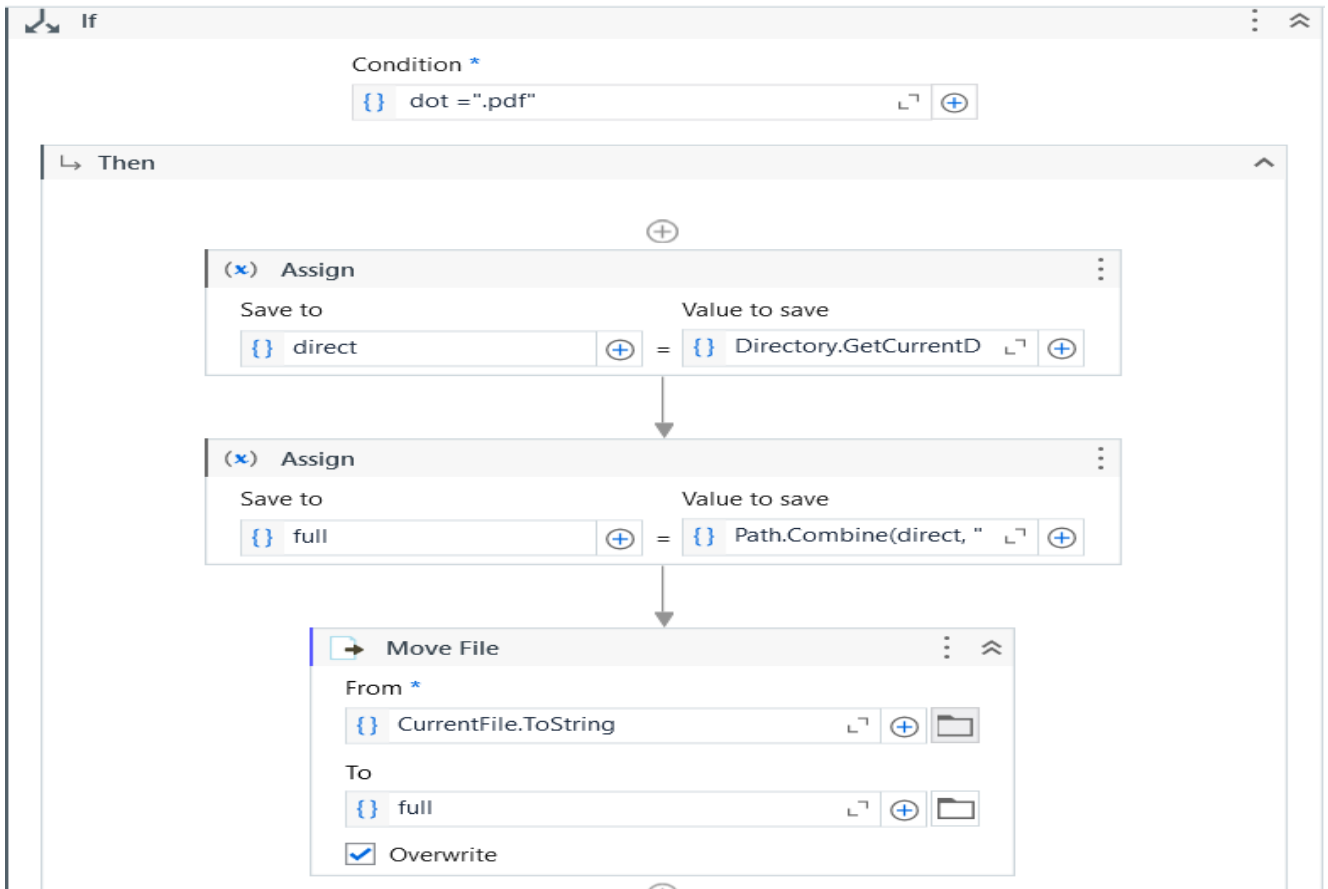
CONCLUSION

In conclusion, the "Mail Attachments Organizer" application represents a transformative solution for streamlining email management through intelligent automation and advanced algorithms. By prioritizing the categorization of the top 10 unread email messages and employing user-friendly interfaces, this application aims to significantly enhance efficiency and user satisfaction. The integration with popular email platforms, robust security measures, and scalability considerations contribute to its reliability and adaptability. The project's success hinges on continuous improvement, incorporating user feedback and staying abreast of technological advancements. The "Mail Attachments Organizer" not only addresses current challenges in email attachment management but also sets the stage for future innovations in smart and intuitive email organization systems. Moreover, the "Mail Attachments Organizer" application not only meets the immediate need for efficient email attachment management but also serves as a catalyst for broader advancements in the field of automated email organization. The commitment to ongoing refinement and adaptation ensures that the application remains at the forefront of technological innovation. The incorporation of machine learning algorithms and adaptable architectures positions the app as a pioneer in the evolving landscape of intelligent email management systems. By prioritizing user feedback, security, and scalability, the "Mail Attachments Organizer" aims not only to address current user needs but also to anticipate and proactively address the challenges of tomorrow. This forward-looking approach solidifies its role as a comprehensive and dynamic solution, reshaping the way users interact with and manage their email attachments.

APPENDIX

SAMPLE PROCESS





Else If - Condition *

{ } dot = ".docx"

Then

Body

(x) Assign

Save to

{ } direct2



Value to save

{ } Directory.GetCurrentD



Models an If-Then-Else If-Else condition.

(x) Assign

Save to

{ } full2



Value to save

{ } Path.Combine(direct2,



Move File

From *

{ } CurrentFile.ToString



To

{ } full2



☒ Overwrite

Else If - Condition *

{ } dot = ".txt"

Then

Body

(x) Assign

Save to

{ } direct3



Value to save

{ } Directory.GetCurrentD



direct3

(x) Assign

Save to

{ } full3



Value to save

{ } Path.Combine(direct3,



Move File

From *

{ } CurrentFile.ToString



To

{ } full3



Else If - Condition *

{ } dot = ".txt"

Then

Body

(x) Assign

Save to

{ } direct3

Value to save

{ } Directory.GetCurrentD

direct3

(x) Assign

Save to

{ } full3

Value to save

{ } Path.Combine(direct3,

Move File

From *

{ } CurrentFile.ToString

To

{ } full3

REFERENCES

1. <https://www.hackerrank.com/daily-challenge/>
2. <https://leetcode.com/>
3. <https://www.codingninjas.com/>
4. <https://docs.uipath.com/>
5. <https://chat.openai.com/>

