



**SCAD COLLEGE OF
ENGINEERING & TECHNOLOGY**

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Approved by AICTE | Affiliated to Anna University, Chennai
Cheranmahadevi, Tirunelveli - 627414



DEPARTMENT OF COMPUTER SCIENCE

NAAN MUTHALVAN

SB8026 – ROBOTIC PROCESS AUTOMATION DEVELOPMENT

**PROJECT TITLE: DOCUMENT TEMPLATING FOR
ACADEMIC ADMINISTRATION**

SUBMITTED BY

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SCAD COLLEGE OF ENGINEERING AND TECHNOLOGY
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UNIVERSITY, CHENNAI

2024- 2025



DEPARTMENT OF COMPUTER SCIENCE

Certified that this is a Bonafide record of work done by Selvan/ Selvi

of _____ Semester _____ Department
for _____ in the
Academic year 2024- 2025.

Staff-in-Charge

Head of the Department

Reg. No.	9	5	2	8	2	2	1	0	4	0	7	6
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Submitted for the University Practical Examination held on _____

Internal Examiner

External Examiner

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DOCUMENT TEMPLATING FOR ACADEMIC ADMISTRATION

1. PROJECT DEFINITION:

The problem is to automate the generation of personalized documents, such as acceptance letters and progress reports, by integrating data from an Excel file into a Word template. This process aims to reduce manual effort, minimize errors, and ensure timely document creation.

2. PROBLEM STATEMENT:

1. Read the word template with POWER POINT ACTIVITIES:

Create a power point slide with a template in local disk

2. Read the excel file with EXCEL ACTIVITIES:

Create a excel sheet with student name list in local disk

3. Replace the word placeholders with excel column value:

Replace the placeholder NAME in the Word document with each student name and save separate files or update them in a loop.

3. PROCEDURE:

1. Create a new excel file called student name list in the local disk.

2. Create a new PowerPoint template called certificate in the local disk.

3. Open UiPath Studio Community

4. To read the Word Template (Word Application Scope)

a. Drag and drop the Word Application Scope activity.

b. Inside the scope, add a Read Text activity to read the content or Find and Replace placeholders.

- c. Use Word Application Scope to open the Word document (template.docx).
- d. Use the Replace Text activity to replace the placeholder NAME with a specific value.
- e. Activities:
- f. Word Application Scope (Set the path of the Word Template)
- g. Replace Text
- h. Text to find: "NAME"
- i. Replace with: "Student Name" (dynamic later)

5. Read the Excel File (Excel Application Scope)

- a) Drag and drop the Excel Application Scope activity.
- b) Inside the scope, use Read Range to read the Excel file containing the student names.
- c) Store the data in a DataTable.

1. Steps:

- d) Use Excel Application Scope to open the Excel file (student_names.xlsx).
- e) Use Read Range to read the student's name column and store it in a variable dt_Students.

2. Activities:

- f) Excel Application Scope (Set the path of the Excel file)
- g) Read Range
- h) Output: dt_Students (DataTable)

6. Create PowerPoint Slide (PowerPoint Activities)

- a) Drag and drop **PowerPoint Application Scope**.
- b) Add a **Create Presentation** or use an existing template to create a PowerPoint file dynamically.

1. Steps:

- c) Use **PowerPoint Application Scope** to create a presentation file.
- d) Add a slide and set the content dynamically.

2. Activities:

- e) **PowerPoint Application Scope**
- f) **Create Presentation** (or open a template)
- g) **Add Slide** (Use Title and Content layout)
- h) **Add Text** (e.g., Title as "Student Name Presentation")

7. Loop Through the Excel Data and Replace Placeholder in Word

- a) Use a **For Each Row** activity to iterate through each student name in the Data Table (dt_Students).
- b) For each student, replace the placeholder NAME with their name in the Word template.
- c) Save a new Word document for each student.

1. Steps:

- d) Use **For Each Row** activity to loop through dt_Students.
- e) Inside the loop, use **Replace Text** in Word and save a new file with the student's name.

2. Activities:

- f) **For Each Row** (row in dt_Students)
- g) **Word Application Scope** (template file)

h) Replace Text

Find: "NAME"

Replace with: row("Name").ToString

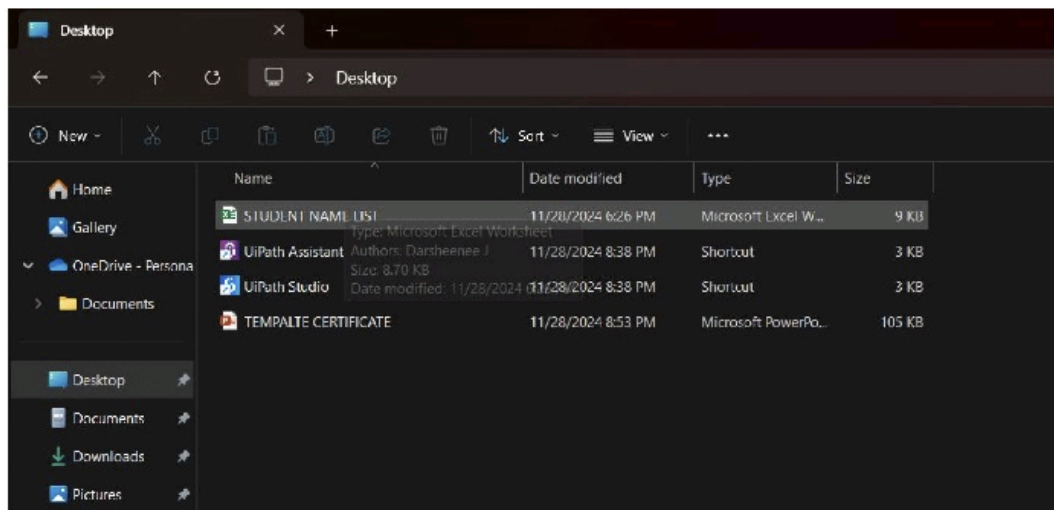
i) Save Document As

Save as personalized_<student_name>.docx

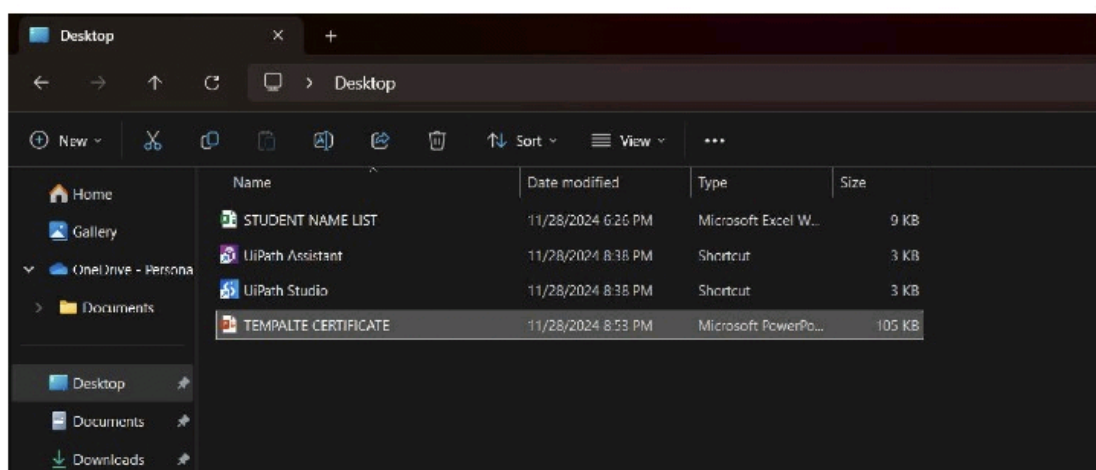
4. DETAILED PROCEDURE WITH SCREENSHOTS:

Get the File to Encrypt:

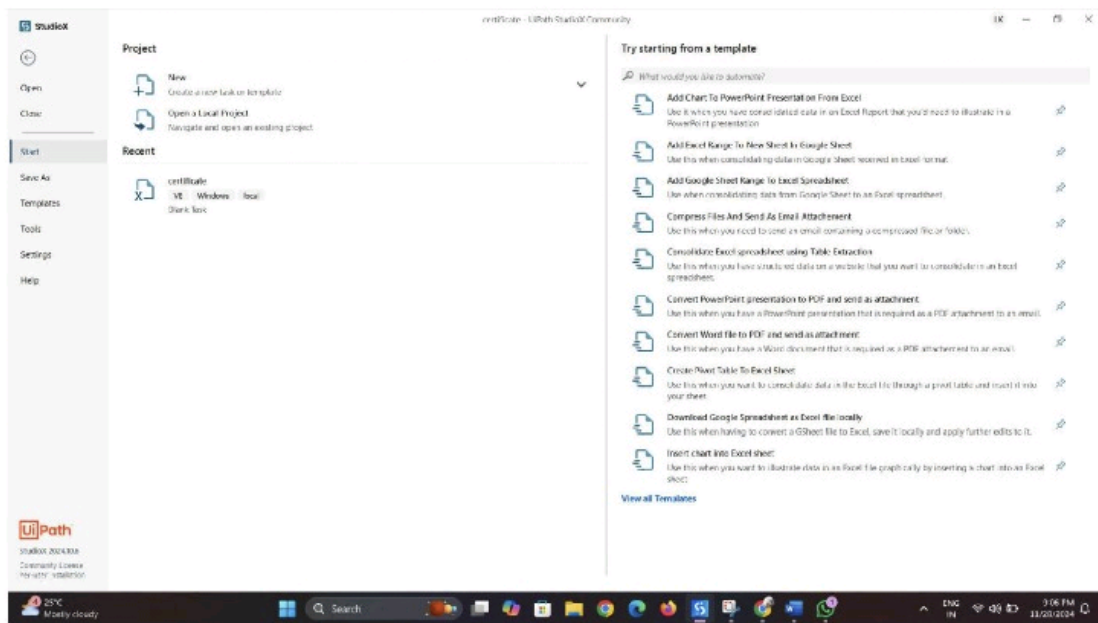
1. Create a new excel file called student name list in the local disk.



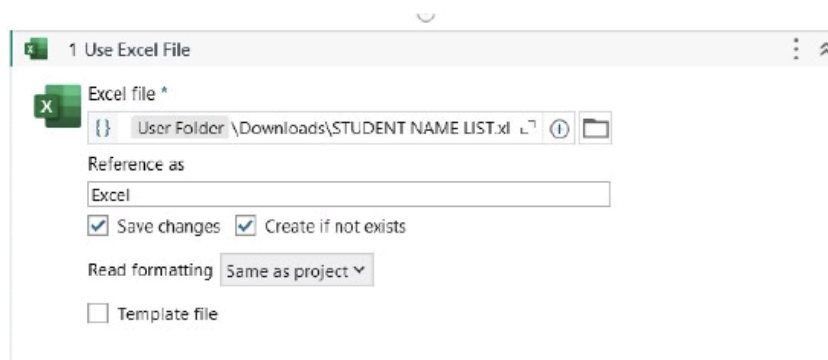
2. Create a new PowerPoint template called certificate in the local disk.



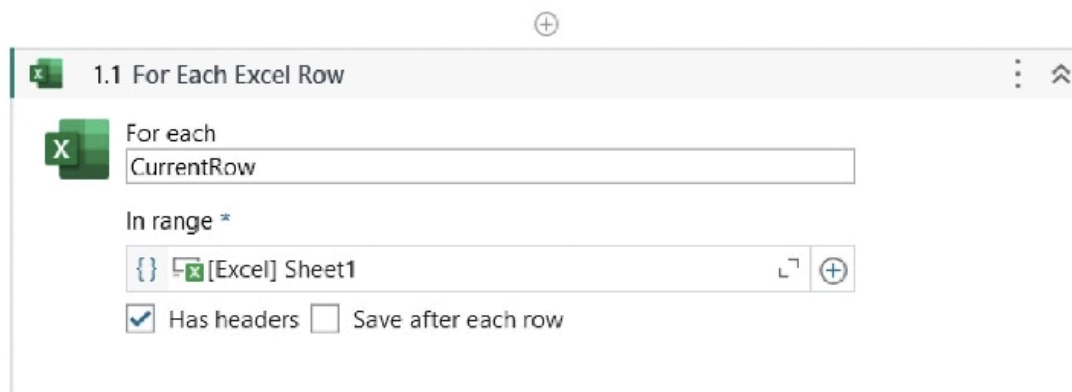
3. Open UiPath Studio Community



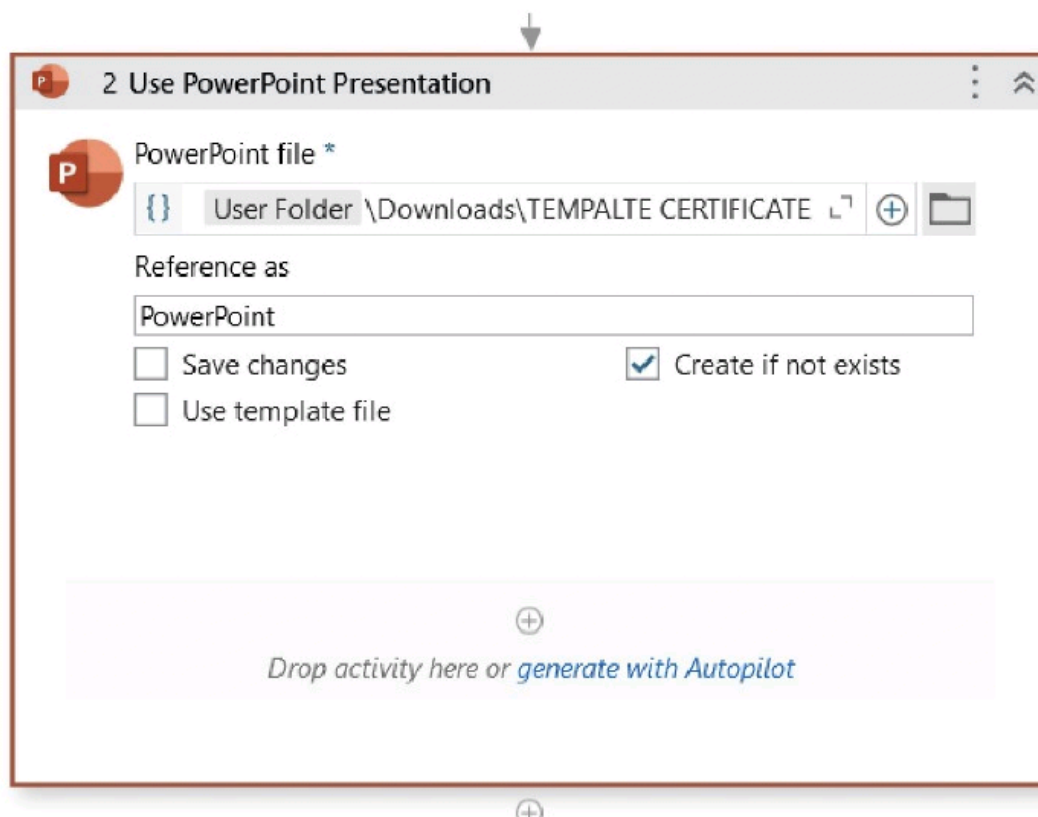
4. Drag and drop the Use excel file:



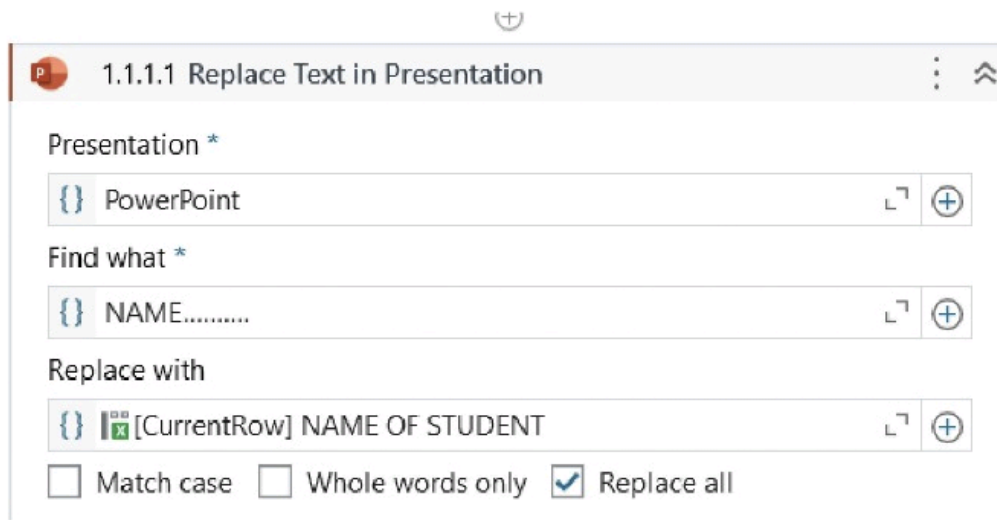
5. To read and range the Use For each row in excel:



6. Drag and drop the Use power point presentation:



7. To replace use, replace text in presentation:



The screenshot shows a dialog box titled "1.1.1.1 Replace Text in Presentation". It contains three text input fields, each with a code icon on the left and a search icon on the right. The first field is labeled "Presentation *" and contains "PowerPoint". The second field is labeled "Find what *" and contains "NAME.....". The third field is labeled "Replace with" and contains "[CurrentRow] NAME OF STUDENT". Below these fields are three checkboxes: "Match case", "Whole words only", and "Replace all" (which is checked).

1.1.1.1 Replace Text in Presentation

Presentation *

{ } PowerPoint

Find what *

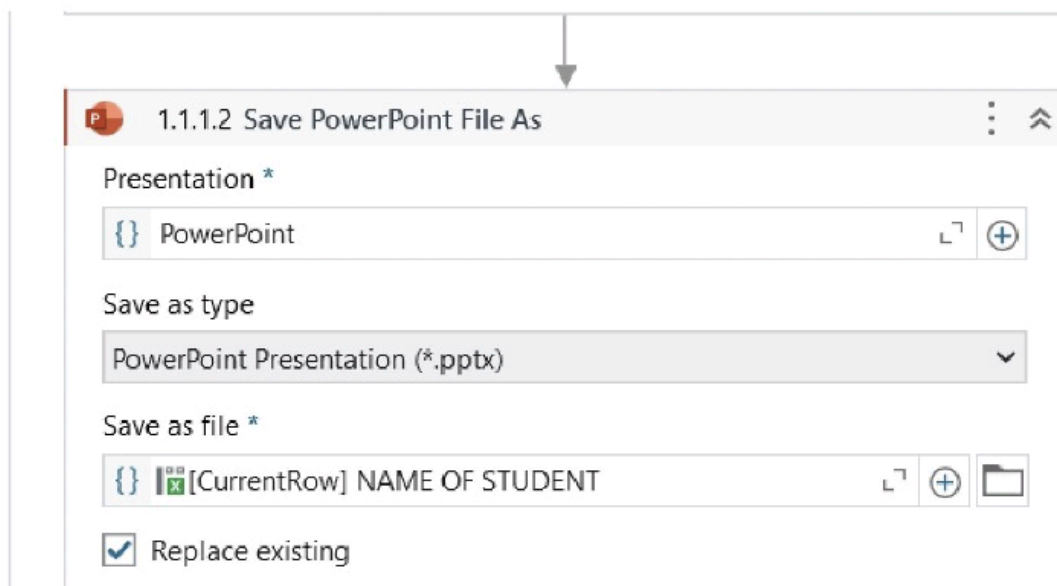
{ } NAME.....

Replace with

{ } [CurrentRow] NAME OF STUDENT

☐ Match case ☐ Whole words only ☒ Replace all

8. To save use, Save powerpoint file as:



The screenshot shows a dialog box titled "1.1.1.2 Save PowerPoint File As". It contains three text input fields, each with a code icon on the left and a search icon on the right. The first field is labeled "Presentation *" and contains "PowerPoint". The second field is labeled "Save as type" and contains "PowerPoint Presentation (*.pptx)". The third field is labeled "Save as file *" and contains "[CurrentRow] NAME OF STUDENT". Below these fields is a checkbox labeled "Replace existing" which is checked.

1.1.1.2 Save PowerPoint File As

Presentation *

{ } PowerPoint

Save as type

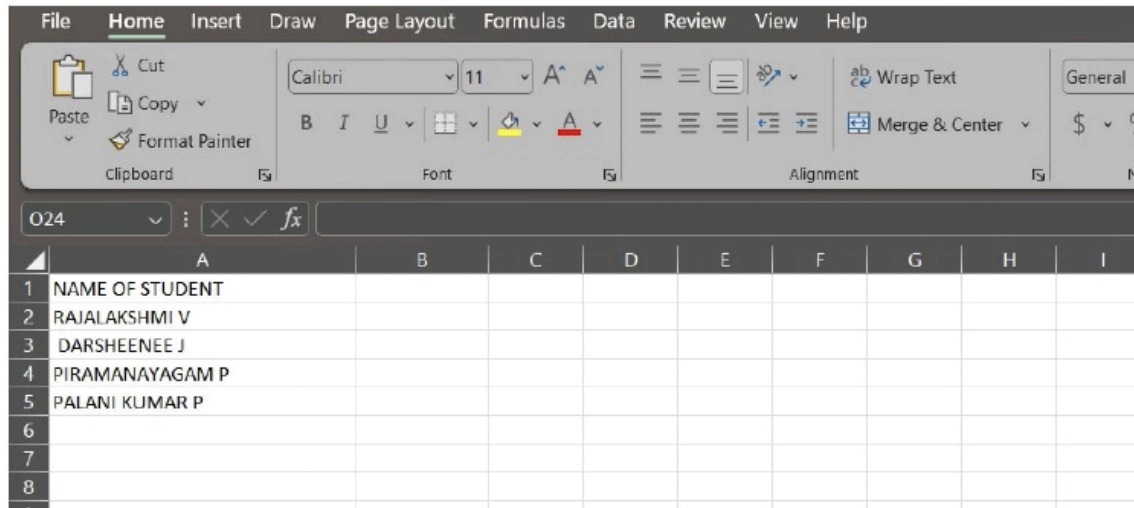
PowerPoint Presentation (*.pptx)

Save as file *

{ } [CurrentRow] NAME OF STUDENT

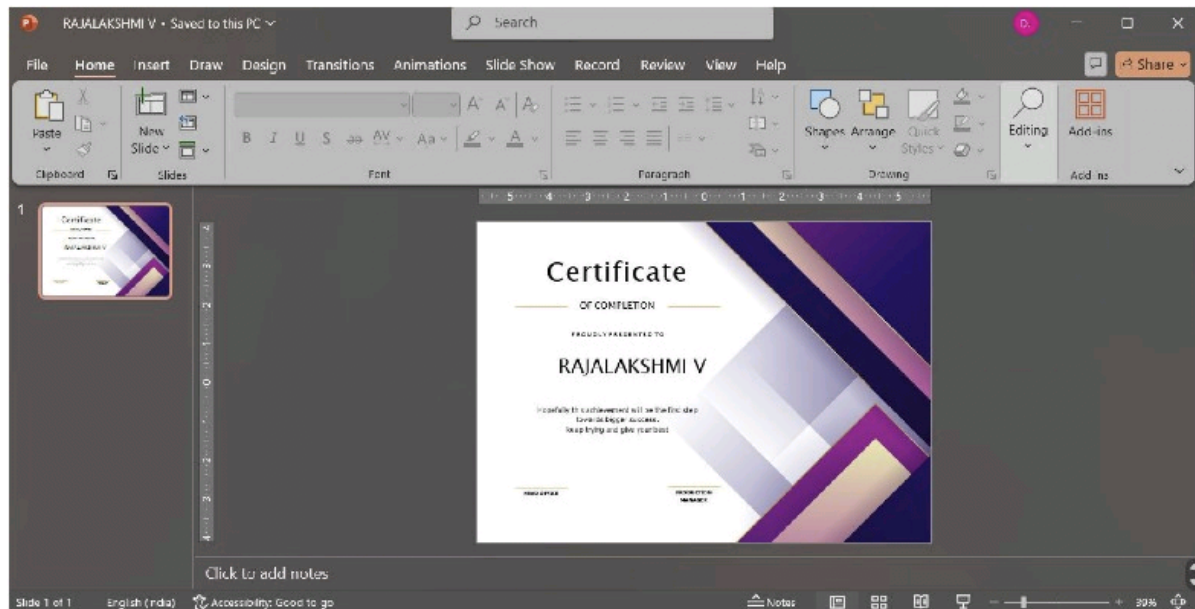
☒ Replace existing

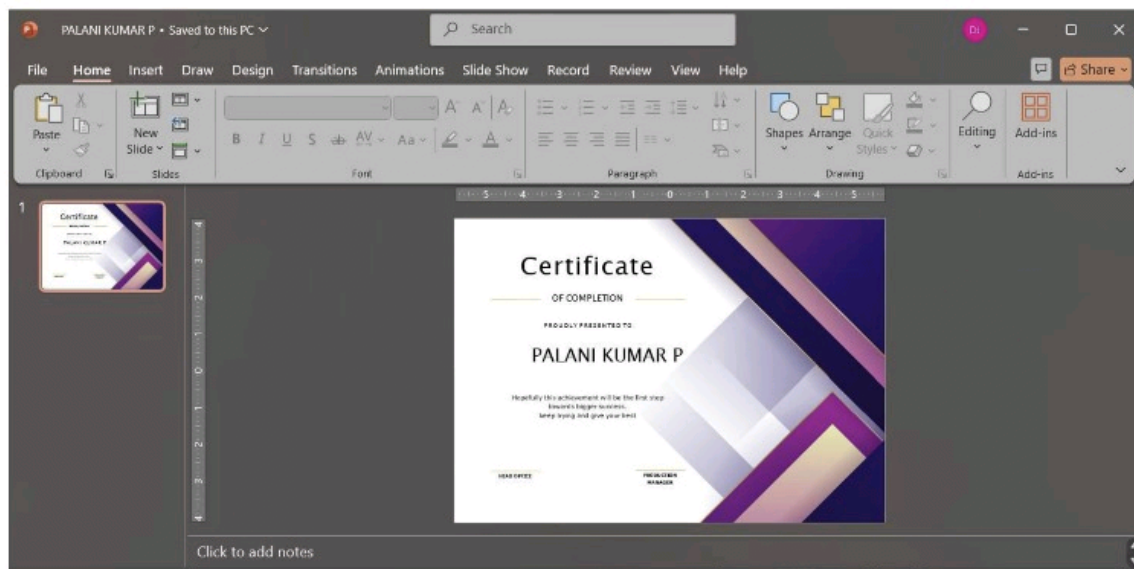
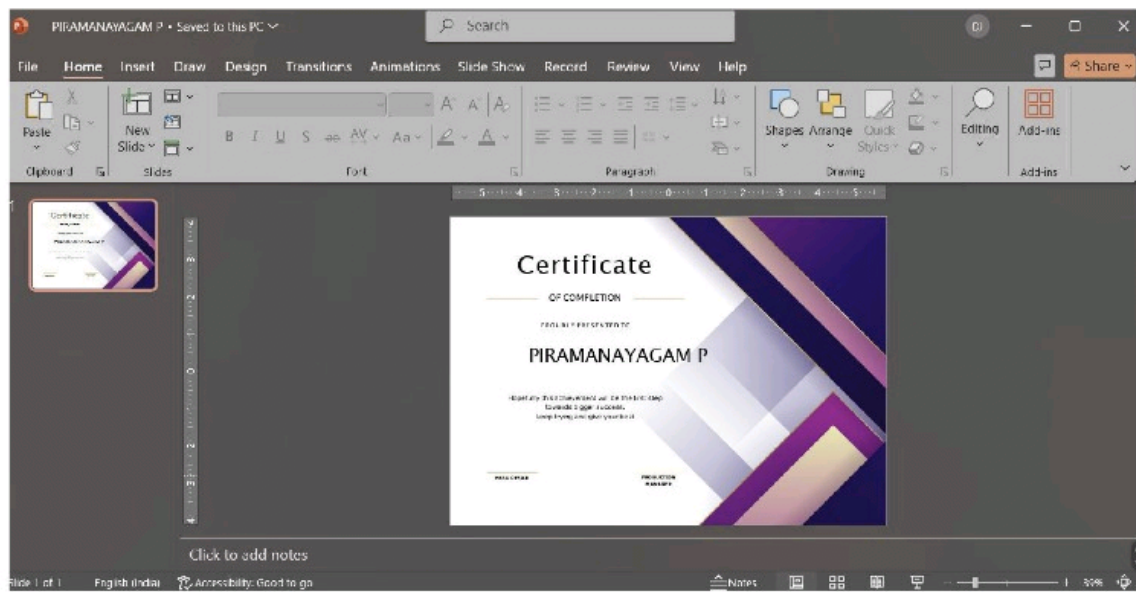
5. OUTPUT SCREENSHOTS:



The screenshot shows the Microsoft Excel interface with the 'Home' tab selected. The ribbon includes options for Clipboard, Font, and Alignment. The active cell is O24. A table is displayed with the following data:

	A	B	C	D	E	F	G	H	I
1	NAME OF STUDENT								
2	RAJALAKSHMI V								
3	DARSHEENEE J								
4	PIRAMANAYAGAM P								
5	PALANI KUMAR P								
6									
7									
8									





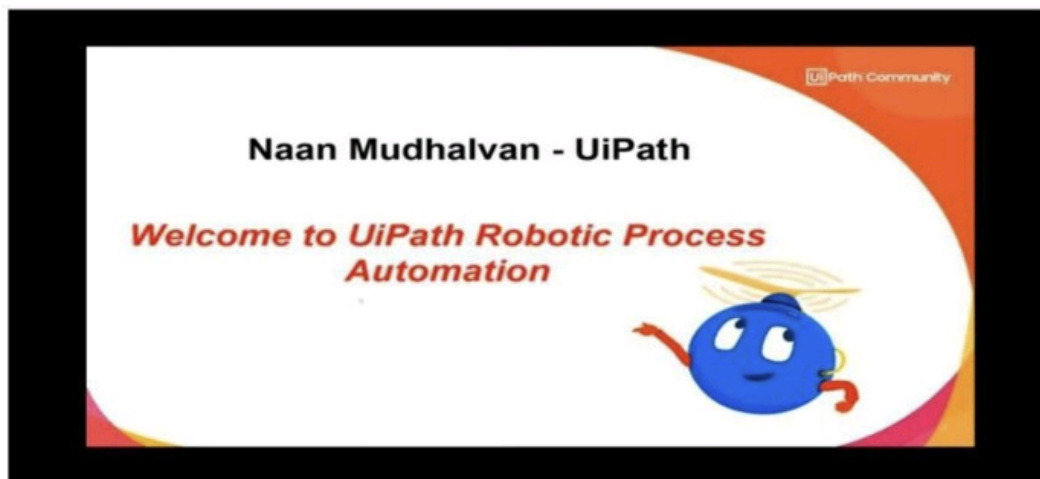
6. WEEKLY SESSION CONTENTS:

Session 1.1 | Introduction to Robotic Process Automation and Building your first automation

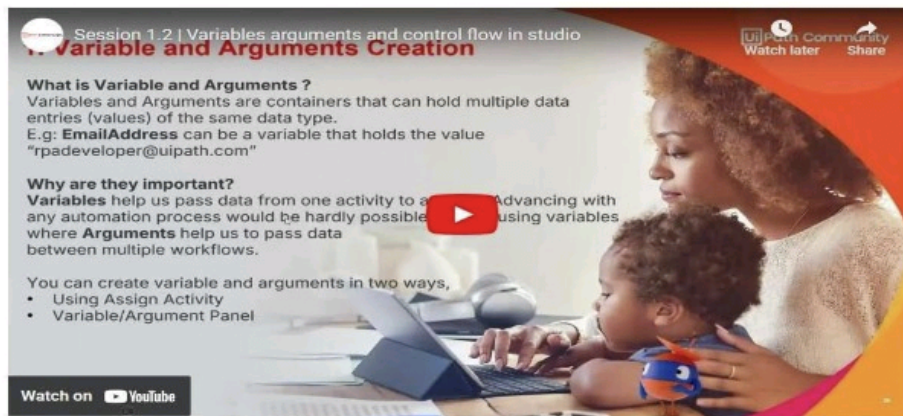
Robotic Process Automation (RPA) is a technology that automates business processes by using software robots. This session gives an overview and build the first automation.

Introducing RPA to the participants and walking them through the user interface of UiPath Studio and Orchestrator. By the end of the webinar, participants will have the knowledge and skills to build their first automation project using UiPath Studio.

Understand variable, argument and data manager panel in UiPath



Session 1.2 | Variables arguments and control flow in studio



Topic: Control Flow Activities and Data Manipulation

This course looks to equip you with the proper understanding of how the UiPath Platform works to empower you and your organization for end-to-end automation.

If you don't have any prior experience in the RPA field, you shouldn't worry about it. We are listening closely to what our learners are telling us and have shaped the RPA Developer journey so that you'll be successful.

Through this introductory course, you will learn about the RPA development process and what the RPA developer's role and responsibility is.

Upon completion, you should be able to explain how the core UiPath RPA components work together and how to set up an attended environment, using Studio, Robot with Assistant, and Orchestrator.

Session 1.3 | Automating Web and Desktop Applications with Studio & Data Manipulation with UiPath

Topic: Mastering UI automation with Modern Design and Debugging

This course looks to equip you with the proper understanding of how the UiPath Platform works to empower you and your organization for end-to-end automation.

If you don't have any prior experience in the RPA field, you shouldn't worry about it. We are listening closely to what our learners tell us and have shaped the RPA Developer journey so that you'll succeed.

This introductory course will teach you about the RPA development process and the RPA developer's role and responsibility.

Upon completion, you should be able to explain how the core UiPath RPA components work together and how to set up an attended environment, using Studio, Robot with Assistant, and Orchestrator.

Session 1.4 | Data Tables and Excel Automation with UiPath

Topic: Excel Automation and Error Handling and Orchestrator

This course looks to equip you with the proper understanding of how the UiPath Platform works to empower you and your organization for end-to-end automation.

If you don't have any prior experience in the RPA field, you shouldn't worry about it. We are listening closely to what our learners tell us and have shaped the RPA Developer journey so that you'll succeed.

This introductory course will teach you about the RPA development process and the RPA developer's role and responsibility.

Upon completion, you should be able to explain how the core UiPath RPA components work together and how to set up an attended environment, using Studio, Robot with Assistant, and Orchestrator.

Session 1.5 | Debugging exception handling and logging in Studio


Session 1.6 | Email and PDF Automation

Session 1.7 | Orchestrator Overview, Version Control Systems

Session 1.8 | Naan Mudhalvan Projects & Project Organization, RPA Testing

1. Random User API	2. Bank Loan Id Generation
3. Dynamic Web Form Data Entry	4. Password Reset Bot
5. Encrypt And Decrypt Files	6. Move and rename
7. Integrating Python for Monthly Expense Analysis	8. Ticket Data Extractor BOT
9. Invoice Data Extraction	10. Shopping Helper BOT
11. Patient Details Registration	12. PDF Splitter BOT
13. Pivot Table for Highest and Lowest Population	14. Birthday BOT
15. Consolidated Data Reporting using LINQ	16. Student Result Generation
17. Let AI do the copy paste	18. Loan Apply Utility Bot
19. Automated Mail Invitation System for Symposiums and other events	20. Document Templating for Academic Administration

6. DIPLOMA CERTIFICATE:

 **Naan Mudhalvan robotic process automation Foundation Course Link:**

<https://academy.uipath.com/learning-plans/naan-mudhalvan-robotic-process-automation-foundation-course-for-engineering>

CERTIFICATE LINK:

- <https://academy.uipath.com/learning-plans/naan-mudhalvan-robotic-process-automation-foundation-course-for-engineering>



7. CONCLUSION:

This automation eliminates manual effort, improves accuracy, and ensures consistency in generating personalized files for different users. UiPath's integration with Word, Excel, and PowerPoint makes it a powerful tool for automating repetitive tasks across multiple Office applications. By leveraging these techniques, businesses and individuals can save time, reduce errors, and enhance productivity.

8. REFERENCES:

- <https://docs.uipath.com/studio/docs/introduction>
- <https://docs.uipath.com/studio/docs/the-user-interface>
- <https://docs.uipath.com/studio/docs/creating-basic-process>
- <https://academy.uipath.com/courses/variables-and-arguments-in-studio>
- <https://docs.uipath.com/studio/docs/the-variables-panel>
- <https://docs.uipath.com/studiox/docs/managing-your-project-data>
- <https://docs.uipath.com/studio/docs/about-control-flow>
- <https://www.uipath.com/learning/video-tutorials/control-flow>
- <https://docs.uipath.com/studio/docs/managing-variables>