Chapter 1

INSTALLATION AND SETUP PROCEDURE

- **Download Software:**

Install Studio

The UiPath Studio MSI installer enables you to install Studio, StudioX, Robot, and Assistant. Use the **Enterprise Edition** of the installer if your organization purchased the UiPath Platform or you are installing as part of a trial of the UiPath Platform. If you are a community user, use the **Community Edition** of the installer.

The installer can be downloaded from the Resource Center in UiPath Automation Cloud or provided by your customer success manager or the support team. To request a trial, go to https://cloud.uipath.com/portal_/register.

By default, a 64-bit version of the installer is available (UiPathStudio.msi). There is a single installer, but the file name differs depending on the type of deployment and license, with each file offering a different activation experience.

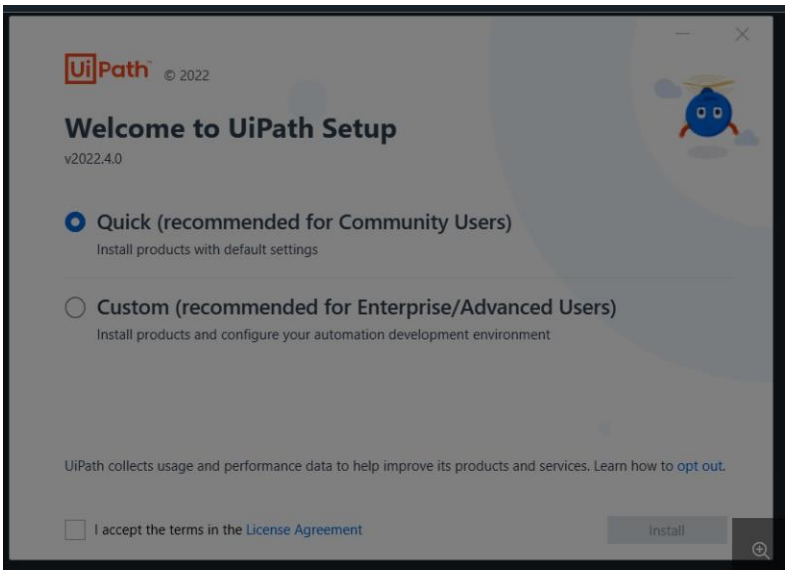
- For the Enterprise Edition, the installer is named as follows:
    - UiPathStudio.msi - Obtained after purchasing the on-premises UiPath Platform.
    - UiPathStudioCloud.msi - Obtained after purchasing UiPath Automation Cloud.
    - UiPathStudioOnPremTrial.msi - Obtained as part of a trial of the on-premises UiPath Platform.
    - UiPathStudioCloudTrial.msi - Obtained as part of a trial of UiPath Automation Cloud.
- For the Community Edition, the installer is named UiPathStudioCommunity.msi.

For information on updating from an older version, see Update Studio.

For instructions on installing from the command line, see Command Line Parameters.

Performing the Installation

1. Double-click the installer to launch the installation wizard.



2. Read and accept the License Agreement. Please note that by accepting the terms of the license agreement, you implicitly accept the terms of use of UiPath activity packages and their dependencies.

3. Select the type of installation to perform:

    - **Quick** - Install Studio in a default configuration that includes the following:
        - Studio, StudioX and Assistant
        - User-mode Robot
        - StudioX Excel Add-in (if Microsoft Excel is installed on your machine)
        - Chrome extension (if Google Chrome is installed on your machine)

4. Custom - Select which components to install, and configure advanced installation settings.

    Select this option and click Configure to proceed to step 4. This is the recommended option for advanced and Enterprise users.

Chapter 2

INTRODUCTION

2.1. OVERVIEW OF THE PROJECT

This project aims to automate the extraction and analysis of public government data using UiPath. The automation system extracts data from multiple Excel files, merges the datasets into a unified format, and processes it according to predefined regulations. The final output is a comprehensive summary report that consolidates key metrics such as data ID, category, value, and date. This RPA solution is designed to minimize manual intervention, reduce errors, and accelerate the reporting process, enabling timely and accurate insights into government data.

2.2. AIM OF THE PROJECT

- To automate the extraction and aggregation of public government data from multiple Excel files.
- To streamline data processing and validation, ensuring accuracy and consistency.
- To generate a comprehensive summary report that consolidates key government metrics.
- To reduce manual effort and minimize errors in the data aggregation process.
- To provide timely and actionable insights for informed decision-making in government operations.

Chapter 3

REQUIREMENTS SPECIFICATION

3.1. FUNCTIONAL REQUIREMENTS

- **Data Extraction:** Automate the extraction of public government data from multiple sources.
- **Data Merging:** Merge the extracted data into a unified dataset for analysis.
- **Data Validation and Processing:** Validate and process the data according to predefined government regulations and business rules.
- **Report Generation:** Automatically generate and save summary reports with key metrics derived from the government data.
- **Error Handling:** Implement error detection, logging, and management mechanisms during the RPA process.
- **Automation Scheduling:** Schedule and trigger the RPA processes at predefined intervals or based on specific triggers.

3.2. NON-FUNCTIONAL REQUIREMENTS

- **Performance:** Ensure timely processing and efficient resource usage.
- **Reliability:** Maintain continuous operation with robust error handling.
- **Scalability:** Handle increasing data volumes and integrate with other tools.
- **Usability:** Provide an intuitive interface with clear logs and reports.
- **Security:** Secure handling, storage, and access to customer data.
- **Maintainability:** Ensure workflows are easy to update and document.

3.3. HARDWARE & SOFTWARE REQUIREMENTS

Hardware

- Computer with Adequate Processing Power: A computer with sufficient processing power and memory to handle tasks such as extracting, merging, and processing large government datasets.
- Sufficient Memory (RAM): At least 4 GB of RAM is recommended for smooth RPA operations, with 8 GB or more preferred for handling larger datasets.
- Storage Space: Adequate storage space for saving extracted government data, project files, and handling temporary data generated during the RPA workflow execution.

Software

- UiPath Studio: The primary software required for designing and executing the automation workflow.
- .NET Framework: Required for UiPath Studio to run properly; .NET Framework 4.6.1 or later is necessary.
- Microsoft Excel (Optional): While UiPath can handle CSV and DataTables natively, having Excel can be useful for more advanced data manipulation and storage.

Chapter 4

DETAILED DESIGN (STEP-BY-STEP PROCESS)

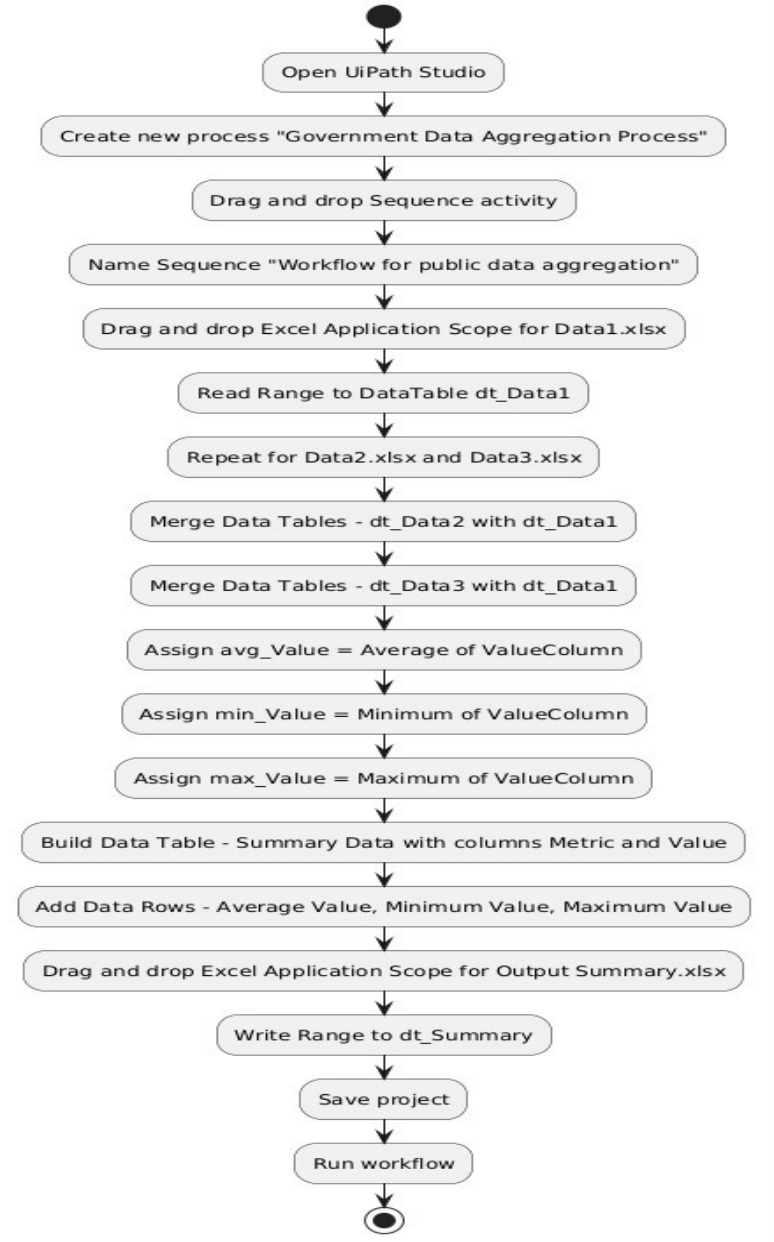


Fig 1: Flow Diagram for Customer Feedback Aggregation

Chapter 5

IMPLEMENTATION

5.1. MODULE AND THEIR ROLES

Step 1: Open UiPath Studio.

Step 2: Create a new process and name it "Government Data Aggregation Process."

Step 3: Drag and drop a Sequence activity from the Activities panel and drop it in the Designer panel.

Step 4: Name the Sequence activity as "Sequence – 'A workflow using data table activities to aggregate public government data from multiple sources'."

Step 5: Drag and drop an Excel Application Scope activity and name it "Excel Application Scope – Data1.xlsx." Set the path to your first Excel file containing government data. **Step 6:** Inside the Excel Application Scope, drag and drop a Read Range activity. Set the output to a DataTable variable named dt_Data1.

Step 7: Create the DataTable variable for dt_Data1 through the Variables panel as follows:

Step 8: Repeat Step 5 to Step 7 for the other two Excel files (Data2.xlsx and Data3.xlsx), storing the outputs in dt_Data2 and dt_Data3, respectively.

Step 9: Drag and drop a Merge Data Table activity and name it "Merge Data Table – dt_Data2 with dt_Data1." Set the Source to dt_Data2 and the Destination to dt_Data1.

Step 10: Drag and drop another Merge Data Table activity and name it "Merge Data Table – dt_Data3 with dt_Data1." Set the Source to dt_Data3 and the Destination to dt_Data1. **Step 11:** Drag and drop an Assign activity and name it "Assign – Calculate Average Value." Add an annotation: "This activity calculates the average value of the data." Set it as:

- avg_Value = dt_Data1.AsEnumerable().Average(Function(row) Convert.ToInt32(row("ValueColumn")))

Step 12: Create the variable avg_Value in the Variables panel.

Step 13: Drag and drop an Assign activity and name it “Assign – Calculate Minimum Value.” Add an annotation: “This activity finds the minimum value in the data.” Set it as: • min_Value = dt_Data1.AsEnumerable().Min(Function(row) Convert.ToInt32(row("ValueColumn")))

Step 14: Create the variable min_Value in the Variables panel.

Step 15: Drag and drop an Assign activity and name it “Assign – Calculate Maximum Value.” Add an annotation: “This activity finds the maximum value in the data.” Set it as: • max_Value = dt_Data1.AsEnumerable().Max(Function(row) Convert.ToInt32(row("ValueColumn")))

Step 16: Create the variable max_Value in the Variables panel.

Step 17: Drag and drop a Build Data Table activity and name it “Build Data Table – Summary

Data.” Add an annotation: “This data table will store the summary metrics.” Define the columns as:

- Metric (String)
- Value (String)

Step 18: Create the DataTable variable for dt_Summary through the Variables panel.

Step 19: Use Add Data Row activities to add the calculated metrics to dt_Summary. Name the activities accordingly:

- “Add Data Row – Average Value”
- “Add Data Row – Minimum Value”
- “Add Data Row – Maximum Value”

Step 20: Drag and drop an Excel Application Scope activity and name it “Excel Application Scope – Output Summary.xlsx.” Set the path to a new or existing Excel file for

Chapter 6

SNAP SHOTS

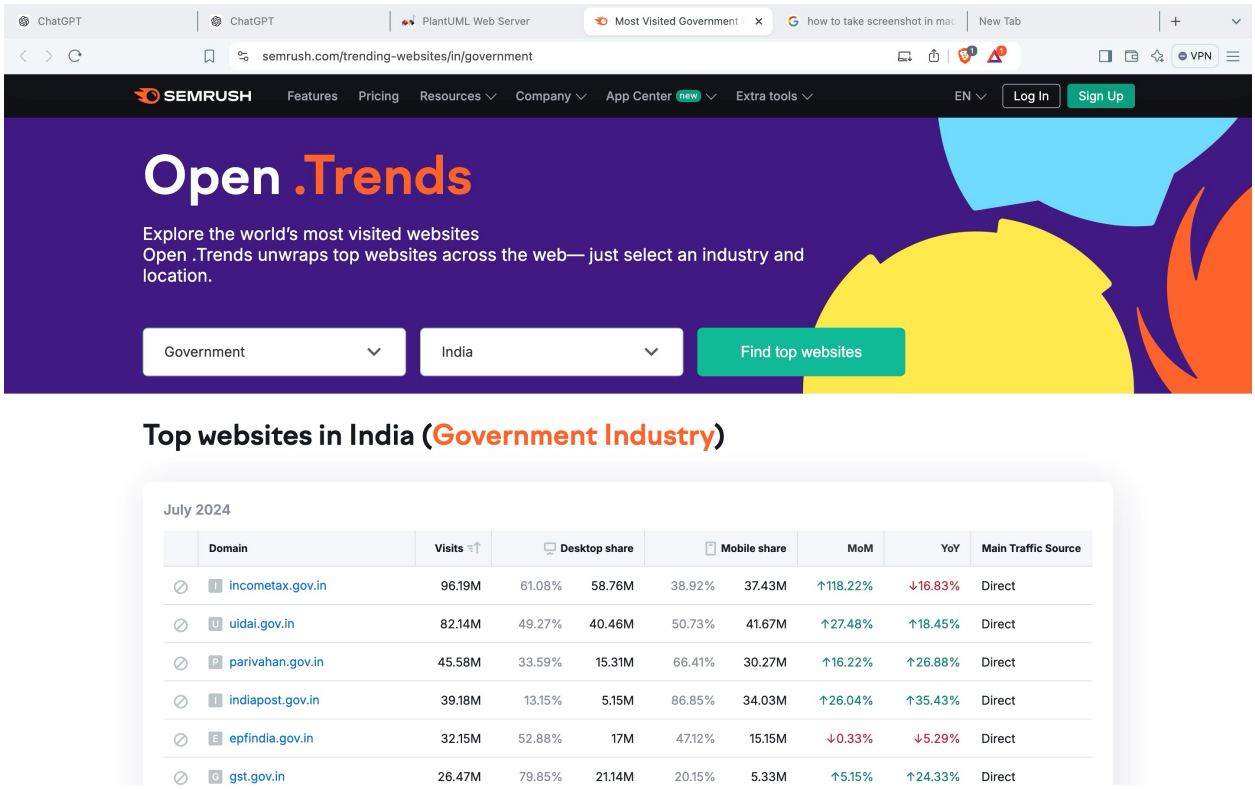


Fig 1: Input For The Process

- The input screenshot displays a webpage from SEMrush's Open .Trends section, focusing on top government websites in India. The data includes columns for visits, desktop share, mobile share, month-over-month (MoM) change, year-over-year (YoY) change, and the main traffic source. This information serves as the input for further analysis and processing to understand user engagement and traffic trends on these government portals.

Domain	visits	Desktop S	MoM	YoY	Main Traffic Source	
i incometax.g	96.19M	61.08%58.	38.92%37.	↑118.22%	↓16.83%	Direct
u uidai.gov.in	82.14M	49.27%40.	50.73%41.	↑27.48%	↑18.45%	Direct
p parivahan.go	45.58M	33.59%15.	66.41%30.	↑16.22%	↑26.88%	Direct
i indiapost.gov	39.18M	13.15%5.1	86.85%34.	↑26.04%	↑35.43%	Direct
e epfindia.gov.	32.15M	52.88%17	47.12%15.	↓0.33%	↓5.29%	Direct
g gst.gov.in	26.47M	79.85%21.	20.15%5.3	↑5.15%	↑24.33%	Direct
t tn.gov.in	24.24M	34.23%8.3	65.77%15.	↑18.15%	↑5.99%	Direct
k karnataka.go	24.17M	35.81%8.6	64.19%15.	↑20.43%	↑27.74%	Direct
e eci.gov.in	22.25M	44.91%9.9	55.09%12.	↓82.01%	↑432.31%	Direct
b bihar.gov.in	21.5M	50.87%10.	49.13%10.	↑25.23%	↑53.28%	Direct
r rajasthan.go	19.03M	62.51%11.	37.49%7.1	↓1.92%	↑23.44%	Direct
a adda247.com	16.49M	37.97%6.2	62.03%10.	↑13.11%	↑24.71%	Direct

Fig 2: Output Excel Sheet

- The output screenshot shows an Excel summary report with columns for Average Values, Minimum, and Maximum Metrics. The report aggregates and displays these calculated metrics, offering a concise overview of the processed public government data.

Chapter 7

CONCLUSION

The UiPath automation efficiently consolidates public government data from multiple sources into a unified DataTable, performing key operations such as merging datasets, calculating averages, and identifying minimum and maximum values. The workflow then generates a detailed summary report, offering a clear and organized view of the data, which can be utilized to gain valuable insights into government metrics and trends. This process not only improves data

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