

# **CHAPTER 1**

## **INTRODUCTION**

Excel automation aims to fetch and perform tasks on data in a excel sheet automatically. Excel automation is powered by robotic process automation (RPA) software. RPA software robots can be programmed to replicate the actions that we perform in a excel sheet like formatting cells, copying the data, inserting and deleting the rows and columns, perform calculations on the excel data and more. We can use excel automation for many tasks like extracting data from excel sheet and filling the online forms, generating graphs and charts using the data, and viewing the particular information based on the given condition. While these tasks seem simple, when you repeat these steps over and over, it can add up to a big chunk of time. Any task that involves your interaction with a web browser can be automated to help save you time in your daily work so you can focus on more value-added activities. The Hotel Booking of web Automation is a Robotic Process Automation (RPA) Project. The Bot is majorly created to enter the user data automatically in the website like hotels.com, trivago .,, etc. The user can give required place and can able to book the hotel, based on user convenience. The bot actually works on the user information and to list out the hotels and then to confirm the booking. The process is easy and highly based on cost and time efficient. The requirements of the user are obtained by predefined filter list and from that the user chooses based on budget and comfort, then the check for availability of the room is done.

### **1.1 PROBLEM DEFINITION**

The existing system provide only normal booking of hotels in a website. where user can manually enter the data and to search hotels. The user is not sure when there will be a server problem or time consuming activity. And to reduce the effort of user, will give requirements to bot and it will fill out the needs and then it will mark a hotel to user needs. A database is used for storing and

administering all types of data required for efficient and accurate prediction. It can achieve the easy way booking the hotel with less time.

## **1.2 OBJECTIVE OF THE PROBLEM**

Our aim is to make user effortless and to get specified field in the website. The objective of the project is to develop a system that automates the process and activities of a hotel booking. Automatically the bot will enter the user information in the website by fetching of data.

## **1.3 SIGNIFICANCE OF THE PROJECT**

UiPath is a free, fully-featured and extensible version of our automation tool. This platform delivers the fastest and most reliable RPA that enhances business performance at unlimited scale. It is easy to use, highly responsive, and instantly scalable to allow you to build the process.

RPA tools are defined as non-integrated, stand-alone software for laptops and workstations. UiPath is recognized worldwide for product leadership and technical excellence. RPA is the largest in the industry, the most active in the automation field.

**A UiPath feature has three main products:**

- **UiPath Studio-** It designs automation process using diagrams, which are visually appealing
- **UiPath Robot-** Executes the UiPath Studio Processes
- **UiPath Orchestrator** – It is an application that deploys, manages, and monitors processes/robots

UiPath Robots and Executors interact with huge amounts of data at the same time. We can run a process either on a single, or multiple robots or any specified number of robots and can group them in the environment.

UiPath Studio software automates back-office repetitive tasks. It is one of the tools used in automating business processes. It converts each task into UI automation, thereby making work easier and quicker. Multiple workflow designs are available in Studio. UiPath Studio comes with a debug component that easily locates problems within complex workflows. This easily verifies the execution activity and observes if there are any errors in the output.

## **1.4 OUTLINE OF THE PROJECT**

For booking the bot will gather the information from the user to enhance the website to use effectively and then based on the requirements it will process the access. All users need few information based on the place and stay to complete their task. And the system need the same functionality to complete their various tasks like:

### **1. User:**

- a. Forms/register/login
- b. Check availability of rooms
- c. View ratings
- d. Booking confirmation
- e. feedback

### **2. Website :**

- a. up to date checking
- b. validation

- c. filtering
- d. manipulation
- e. data scraping

## CHAPTER 2

### LITERATURE REVIEW

A literature review is a text of a scholarly paper, which includes the current knowledge including substantive findings, as well as theoretical and methodological contributions to a particular topic. Literature reviews are secondary sources, and do not report new or original experimental work. In Robotic Process Automation (RPA) is the use of software with capabilities to handle high-volume, repeatable tasks that previously required a human to perform. It aims to use a computer to manipulate existing application software in the same way that a person works with those systems and the presentation layer to perform a specific task. This technology increases the productivity for human employees who no longer are tasked with boring work. With UiPath **Excel Automation**, manipulating Excel data becomes hassle and error-free. It saves valuable time and relieves your employees from boring, repetitive tasks and the unnecessary burden of having to learn extensive coding. Therefore, integration with other applications is done both smoothly and safely. UiPath **Excel Automation** brings you countless automation possibilities, no matter how small or elaborate the tasks we are doing. With an RPA solution, we can also integrate Excel tasks in automated processes with other tasks across the enterprise. Automating Excel can take tedious spreadsheet work off your hands,

but the most common type of Excel automation macros is both risky and hard to scale.

### **[1]Google Form**

It is a tool that allows collecting information from users via a personalized survey or quiz. The information is then collected and automatically connected to spreadsheet. The spreadsheet is populated with the survey and quiz responses. This Excel automation automatically fills the google form based on the information given in excel sheet.

### **[2]Select Particular Data From Excel**

The excel sheet consists of large data which are required to fill the online forms. But we don't need each and every data, it requires only particular data to be filled in a online form. So the excel automation uses the condition in the UiPath and filters the data to online forms.

### **[3]Graph And Chart Design From Excel**

Excel can produce high quality charts and graphs, but it takes a lot of work. The biggest difference between Excel and other systems is the quality of the defaults. I suspect some people are using excel charts, but they have gone to a lot of effort to tide them up. The purpose of the excel automation is to generate the charts automatically.

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**Advantages of the Automation process:**

- The Humans are under the era of committing the mathematical and parallax errors while in terms of the RPA the errors are very low

- The work can be done faster and efficient from man-hours and man-years to Minutes and Seconds

## **CHAPTER 3**

### **SYSTEM SPECIFICATION**

#### **3.1 HARDWARE REQUIRMENTS**

The requirements analysis includes the hardware and software requirements for the project.

#### **SYSTEM CONFIGURATION**

Memory : 8 GB RAM

Processor : AMD Ryzen 5 3500U with Radeon Vega Mobile Gfx

System type : 64- bit Operating System, x64-based pc

#### **3.2 SOFTWARE REQUIRMENTS**

Operating System : Windows 10

Tool : UI Path Community Edition

## **CHAPTER 4**

### **SYSTEM ANALYSIS**

A detailed study to determine whether, to what extent, and how this system is used, it is usually an analysis of existing system. In order to state about the design of the new system, including the development of system specification which provides a base for the selection of equipment.

#### **4.1 EXISTING SYSTEM**

- Propose a new technique for automatically performing tasks like formatting cells, updating values, and running macros.
- Across businesses of all sizes and across industries, one tool is ubiquitous—the Microsoft Excel spreadsheet.
- Automate can automatically execute the same steps you would perform when working with spreadsheets, such as formatting cells or updating values.

##### **4.1.1 Drawbacks of Existing System**

- Data Capacity
  - ✓ In Existing system the excel sheet can hold large amount of data but reading and writing those data is highly difficult because it takes lots of time. Since when a data file is too large, it can make the excel program run very slowly, especially if all the data is in one file.

- **Statistical Analysis**

- ✓ In Existing system there is no option for viewing the data which is automated in google form as a statistical manner. Statistical Analysis is used to find easily the details in understandable manner.

- **Particular Details**

- ✓ As many datas are entered in excel sheet and that are automated in google form, in existing system there is no option for viewing the particular details or an individual details for recruitment process.

## **4.2 PROPOSED SYSTEM**

The excel automation is used to overcome the entire problem which we are facing currently, and making complete automation of filling details from excel sheet to google form.

### **4.2.1 FEASIBILITY STUDY**

- The feasibility of the project is analyzed were the automation process is simplified and less efficient. In proposed system the automation process is not a burden to any of the business applications. In feasibility analysis, filling the google form and essential in the robotic automation. The feasibility study, investigates that The process consists out of the selection of the right data in a excel sheet. It seeks to determine to provide a simple task of automating the process, so that the time and manual errors are reduced. In the time of development, the study gathers information by using a variety of activities, which are implemented to the work flow are:
  - Entering the information on excel is automated through Uipath.

- Now create a google form and enter the necessary details as we enter in excel sheet.
- Data entering is done on the details given by user and the details are automated in google form.
- Excel automation on the scraped data.
- With the automated data the statistical analysis like graph, bar charts can be done for understandable manner.
- The main goal of the feasibility study is to reduce the time, the recruiters can easily find out the students for the placement.

### **4.3 TYPES OF FEASIBILITY**

Feasibility study can be done in three ways, they are:

- Technical Feasibility
- Operational Feasibility
- Economic Feasibility

#### **4.3.1 TECHNICAL FEASIBILITY**

This study is carried out to check the technical feasibility, that is, the technical requirements of the automation system. We will be using Windows 10 for the automation process. The software used for the automation is UiPath which is a free, fully-featured and extensible version of our automation tool. This platform delivers the fastest and most reliable RPA that enhances business performance at unlimited scale. It is easy to use, highly responsive, and instantly scalable to allow you to build the process.

#### **4.3.2 OPERATIONAL FEASIBILITY**

Operational feasibility is the measure of how the datas are available and is monitored by automation. The data in the excel is stored in the form of rows and columns. It refers to project whether the system will operate and UiPath automation tool is installed. The UiPath tool is used to automate the automation process. UiPath provides a set of Excel activities that can be used inside excel application scope activity and workbook activities. If any errors are found in between, the automation throws an exception and easily fixed from the error part.

## CHAPTER 5

### SOFTWARE DESCRIPTION

#### 5.1 UIPATH

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UiPath Studio software automates back-office repetitive tasks. It is one of the tools used in automating business processes. It converts each task into UI automation, thereby making work easier and quicker. Multiple workflow designs are available in Studio. UiPath Studio comes with a debug component that easily

locates problems within complex workflows. This easily verifies the execution activity and observes if there are any errors in the output.

### 5.1.1 FEATURES

- **Workflow Types and Activities**– Multiple types of workflows are available in Studio (sequences, flowcharts and transactional business processes) that help you build your automation workflow according to your needs. To create these workflows, you need activities (actions that you use to automate apps, such as clicking and typing). Around 300 of these activities exist, and they enable you to interact with web browsers, desktop apps, PDFs, images, databases, terminals, Excel spreadsheets, email accounts and many others, while you can also easily create HTTP and SOAP requests.
- **Recorder Functionality** - The easiest manner to create workflows is by using the record feature. Four types of recordings are available: **Basic**, **Desktop**, **Web** and **Citrix**. The first two can help you automate desktop applications, while the others enable you to properly handle web apps and virtual environments.
- **Variables and .Net Functions** - A variable enables you to store a value, but only of a certain type. In addition to these, .Net functions can also be used to enhance your automation, such as .Trim which removes the spaces

from the beginning and end of a string, or `.ToString` which transforms a certain type of variable into a string.

- **Robots and Orchestrator**– Robots, the UiPath executors, can interact with a large amount of applications in the same time. An example is provided in the video.

Orchestrator, the final piece of the puzzle, is used to manage multiple deployed Robots. This type of environment is usually found in

large enterprises that need to automate many business processes. The first thing you need to do in this web app is register your Robot(s). After that, you need to group them together in an environment.

Workflows published to this platform have to be linked to an environment, and from there, you start executing: be it right now or based on a custom- defined schedule. You can run a process on one or multiple Robots, a specified number of them or on all the Robots that are grouped in an environment.

- **Assets and Queues** - Since Robots may need to share information, a special kind of variables are introduced in Orchestrator, assets. These enable you to store information (including credentials) in the web app's database, so that changing a value that is used in multiple processes becomes easy, and multiple Robots can have access to it.

UiPath also makes use of work queues to distribute the load of a transactional process among multiple Robots. They can be scheduled to begin before or after a certain date, and detailed information contained in each queue item can be viewed.

- **Logs, Audit, Alerts** - In the **Logs** tab you can easily see how the Robots performed, what jobs were completed or failed. In addition, every step



carried out by the user can be audited, and alerts are sent by email to all those who have the required permissions.

Finally, roles management is available, along with other nice features such as importing users from an Active Directory group, splitting up automation processes among teams through multiple tenants, and displaying information in neat charts.

### **5.1.2 ADVANTAGE**

- UiPath is considered to user-friendly.
- UiPath provides with high speed in case of implementation.
- This can be utilized in case if several services related to integration that have a different module for workflow.
- The main advantages of this tool that it provides desktop contribution and also Citrix environment.
- A community edition is provided by this tool which is free so that everyone is allowed to learn and download study materials.

## **CHAPTER 6**

### **PROJECT DESCRIPTION**

This chapter provides the problem definition and describes the roles of the different subject of the system. It also lists the different modules and the option under it. It will allow automatically filling up the google form from the excel sheet and generate the statistical analysis.

#### **6.1 PROBLEM DEFINITION**

The existing system faces few problems that the data in the excel is stored in the form of rows and columns. The excel activities in uipath provides a wide range of scope to automate excel. UiPath provides a set of Excel activities that can be used inside Excel application scope activity and workbook activities. This activity provides a container in which all the excel activities can be used. The scope of the excel ends once this activity completed execution.

#### **6.2 OVERVIEW OF THE PROJECT**

- The excel automation is used to overcome the entire problem which we are facing currently, and making complete automation of filling details from excel sheet to google form. Microsoft Excel is a spreadsheet developed by Microsoft for Windows, macos, Android, and IOS. It features calculation, graphing tools, pivot tables, and a macro programming language called

Visual Basic for Applications. It has been a very widely applied spreadsheet for these platforms.

### **6.3 MODULE DESCRIPTION**

Module description provides detailed explanation of the functionalities involved in the application.

The following are the modules involved in this application:

1. Google form
2. Excel Sheet
3. Excel Automation
4. Statistical Analysis

#### **6.3.1 GOOGLE FORM**

In the Google form we have to fill the necessary captions or titles which are given in the excel sheet, after entering the titles connect the google form link to UiPath browser. After connectivity done the details in the excel sheet will be automatically fill in the google form.

#### **6.3.2 EXCEL SHEET**

In this module user have enter the details of the students in the sheet. In excel sheet we having lots of activities such as read range, write range, read cell and write cell. The read range activity is used to read the data from the excel from the specified range. The write range activity is used to write data to the excel in the specified range. The read cell activity is used to read to data from the excel cell specified. The write cell activity is used to write the data to the excel cell specified.

#### **6.3.3 EXCEL AUTOMATION**

In this phase after getting the information from excel sheet and automatically fill up details in the google form. It is easy to automatically fill up the students

details in the google forms for the placement recruitment process. It will also reduces a time. Microsoft Exce is a spreadsheet developed by Microsoft for windows, macos, Android and Ios. It features calculations, graphing tools, pivot tables and a macro programming language called Visual Basic for Applications.

#### 6.3.4 STATISTICAL ANALYSIS

After doing the excel automation, using that information we can easily generate the graphs and charts for the statistical analysis which will help for the recruitment process. Statistical analysis gives us a better way of understanding the data and also helps us to recruit the students easily for the placement.

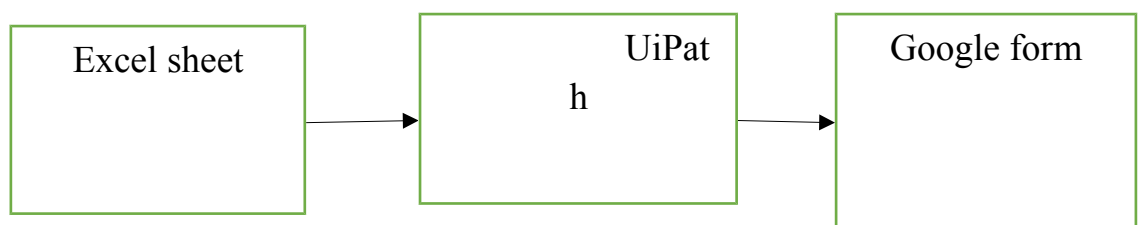
#### 6.4 DATA FLOW DIAGRAM-DFD

Data flow diagram is the 2-D diagram that explains how data is processed and transferred in a system. The graphical depiction defines each source of data and how it interacts with the other sources to reach common output.

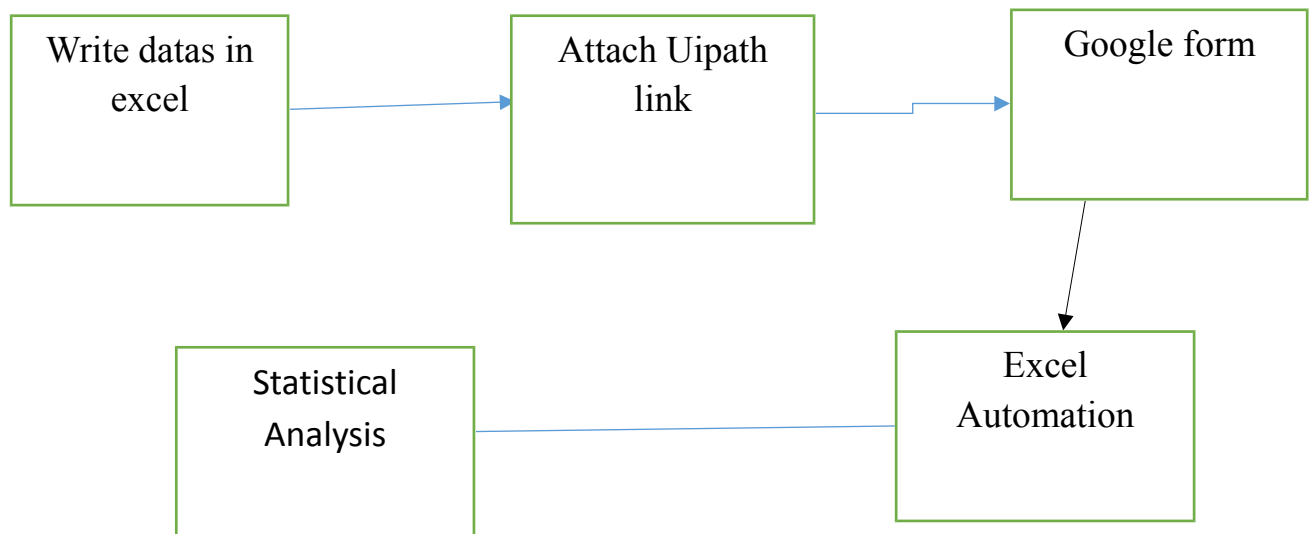
##### SYMBOLS:

Activity and the title for the activity should be placed inside the rectangle. Data Flow Diagram (DFD) is an important technique for modeling the systems in high-level detail by showing how input data is transformed to outputresult through sequences functional transformations.

DFDs reveal relationship among and between the various components in a program or system. DFD consists of four major components: Entities, Procedures, Data stores and Data flow



**FIGURE 6.1 DFD LEVEL 0**



**FIGURE6.2 DFD LEVEL 1**

## 6.5 EXCEL SHEET

JOB DATA - M									
	A	B	C	D	E	F	G	H	I
1	Full Name	University number	Mobile no	Email id	10th%	12th%	UG%		
2	GOWTHAM M	7.11716E+11	7876526577	hfdhjd	96	96	72		
3	ABHI K J	7.11716E+11	8637524662	jhdhasjk	95	94	74		
4	ARTHI KP	7.11716E+11	7856656570	hskhah	83	93	78		
5	ANITHA S	7.11716E+11	6765645433	hasudhush	98	94	72		
6	ANUMARTIN	7.11716E+11	9654433380	jhhgduysg	95	95	73		
7	BARANI S	7.11716E+11	9876654366	jhsduihs	88	93	74		
8	BHARATHI D	7.11716E+11	9754435566	njbnc	92	92	78		
9	DEEPIKA S	7.11716E+11	9544566778	hsghl	94	92	77		
10	KISHORE K	7.11716E+11	9976543347	sybhhuu	93	91	72		
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**TABLE 6.1 – EXCEL SHEET**

In this excel we get the information of the students like their register number, 10<sup>th</sup> marks, 12<sup>th</sup> marks, UG marks, Email ids, Phone number, Number of arrears list etc. It will easily help for filtering the students those who are eligible for placement recruitment.

## **CHAPTER 7**

### **SYSTEM TESTING**

Testing the behavior of the whole software/system in the software requirement specification (SRS) is known as system testing, its main focus is to verify that the user requirement is fulfilled. System testing should test functional and non-functional requirement of the software. Testing the software system or software application as a whole is referred to as system testing of the software to evaluate software's overall compliance with the business/functional and user requirements. The system testing comes under black box software testing. So the knowledge of the internal design or structure or code is not required for this type of software testing.

In system testing software test professional aims to detect defects or bugs within the interfaces and also within software as a whole. However, during integration testing of the application or software, the software tests professional aims to detect the bugs/defects between the individual units that are integrated together.

#### **7.1 TESTING METHODS**

- White box testing
- Basic path testing

- Stress testing
- Acceptance testing
- Black box testing
- Integration testing

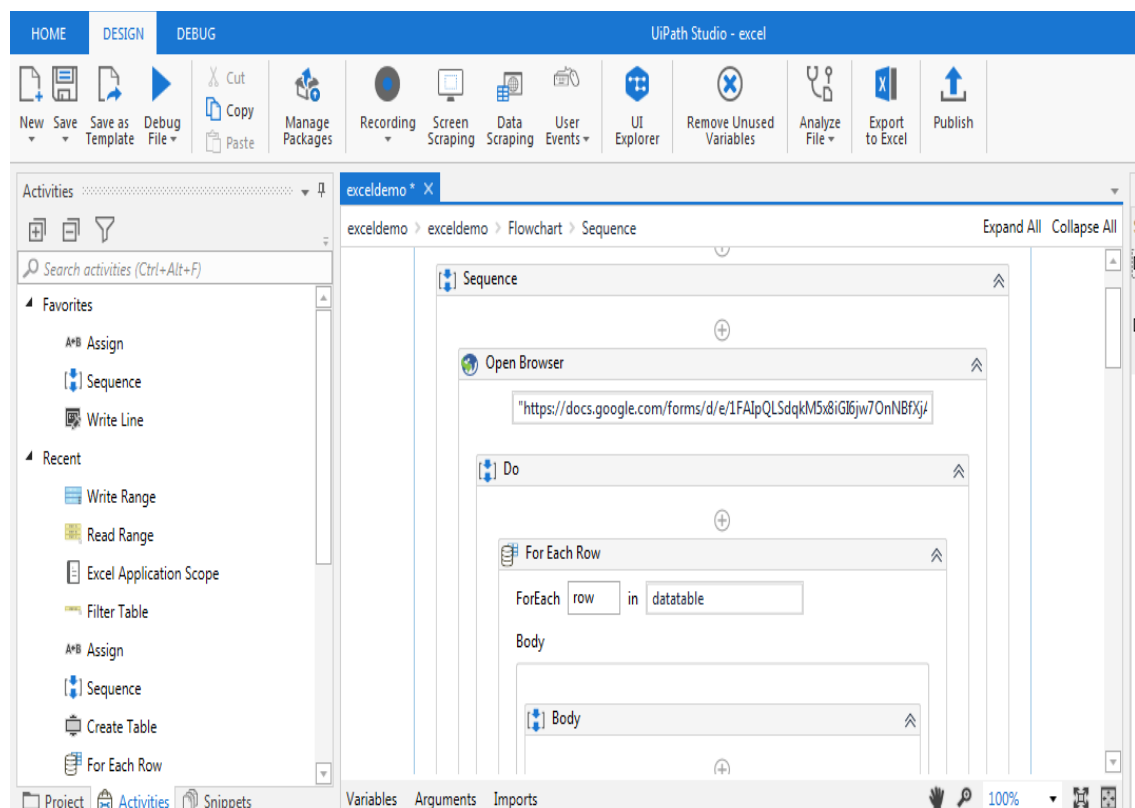
i) Functional testing

ii) Non-functional testing

## 7.2 TYPES OF TESTING

### 7.2.1 UNIT TESTING

In computer programming, unit testing is a software testing method by which individual units of source code, sets of one or more computer program modules. Here it is tested whether the students database contains the marks which is indicated by its count number.



## FIGURE 7.2.1 UNIT TESTING

### 7.2.2 INTEGRATION TESTING

Integration testing is the phase in software testing in which individual software modules are combined and tested as a group. Here the various sheet data are integrated together to perform the various calculations.

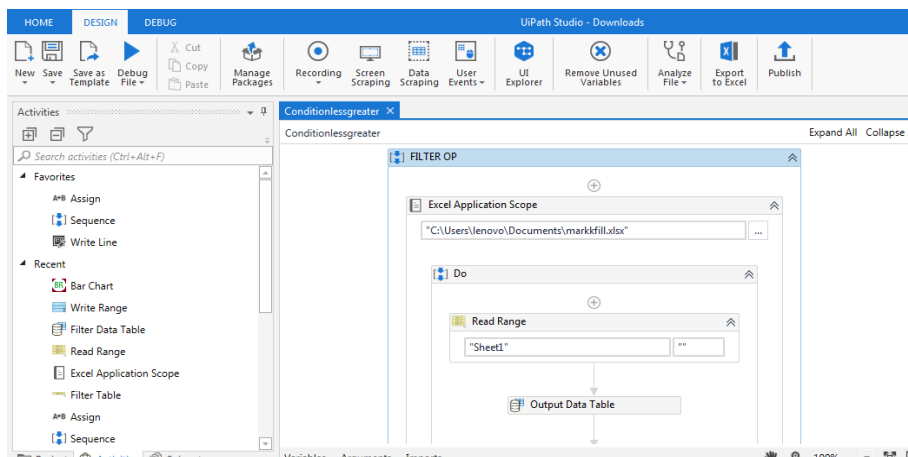


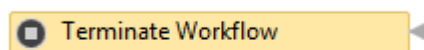
FIGURE 7.2.2INTEGRATIONTESTING

### 7.2.3 FUNCTIONAL TESTING

Functions are tested by feeding them input and examining the output, and internal program structure is rarely considered. Functional testing usually describes what the system does. Functional testing does not imply that you are testing a function (method) of your module or class. Functional testing testsslice of functionality of the whole system.

### 7.2.4 STRESS TESTING

Stress testing a Non-Functional testing technique that is performed as part of performance testing. During stress testing, the system is monitored after subjecting the system to overload to ensure that the system can sustain the stress. Reasons can be to determine breaking points or safe usage limits.





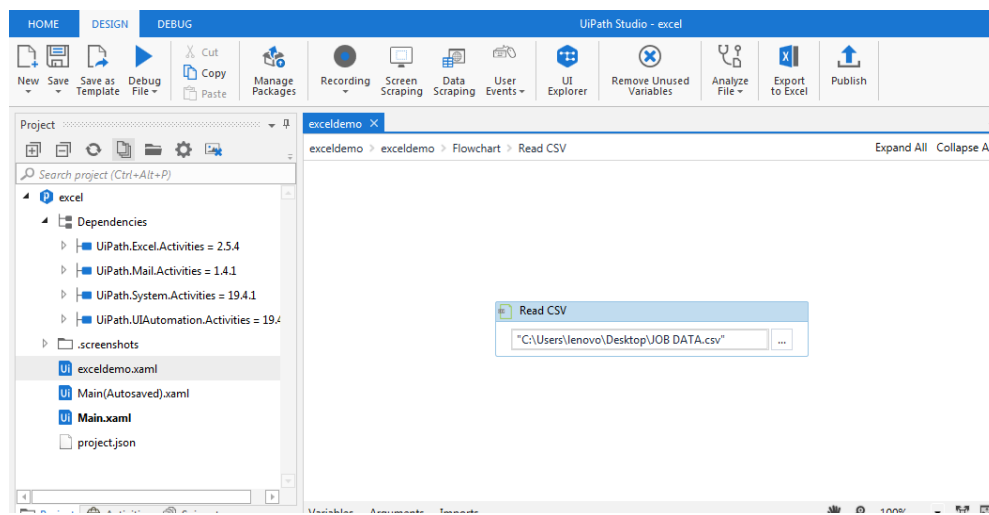
### **7.2.5 ACCEPTANCE TESTING**

Acceptance Testing is a level of the software testing where a system is tested for acceptability. The purpose of this test is to evaluate the system's compliance with the business requirements and assess whether it is acceptable for delivery.

### **7.2.6 WHITE BOX TESTING**

White box testing is also called as Glass box testing. In this testing, by knowing the specific functions that a product has been design to perform test can be conducted that demonstrates each function which is fully operational, at the same time searching for errors in each function. It is the testing of a software solution's internal coding and infrastructure. It focuses primarily on strengthening security, the flow of inputs and outputs through the application, and improving design and usability. White box testing is based on the inner workings of an application and revolves around internal testing.

In this testing, it will check that all the activity have been process successfully. If any of the activity is not satisfied it will thrown an exception.



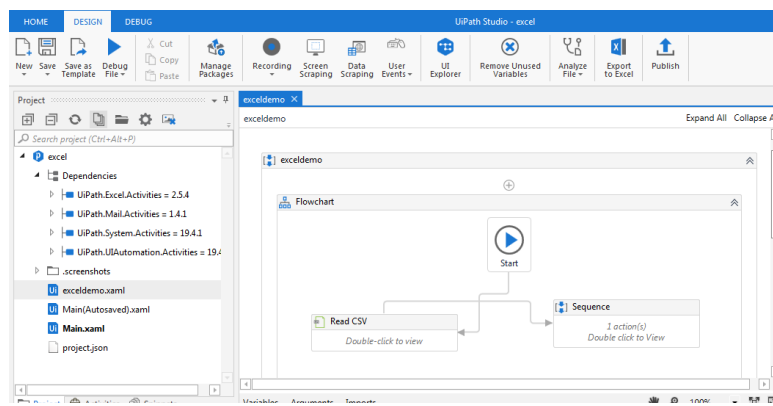
**FIGURE 7.2.6 WHITE BOX TESTING**

## 7.2.7 BLACK BOX TESTING

In black box testing by knowing the internal operation of a product, test can be conducted to ensure that, it is the internal operation performs according to specification and all internal components have been adequately exercised. It fundamentally focuses on the functional requirements of the software.

Black box testing is a software testing techniques in which functionality of the software under test (SUT) is tested without looking at the internal code structure, implementation details and knowledge of internal paths of the software. This type of testing is based entirely on the software requirements and specifications.

A software testing strategy provides a road map for the software developer. Testing is a set activity that can be planned in advance and conducted systematically. For this reason a template for software testing a set of steps into which there can be placed a specific test case design methods.



**FIGURE 7.2.7 BLACK BOX TESTING**

### 7.2.7.1 Methods of Black Box Testing

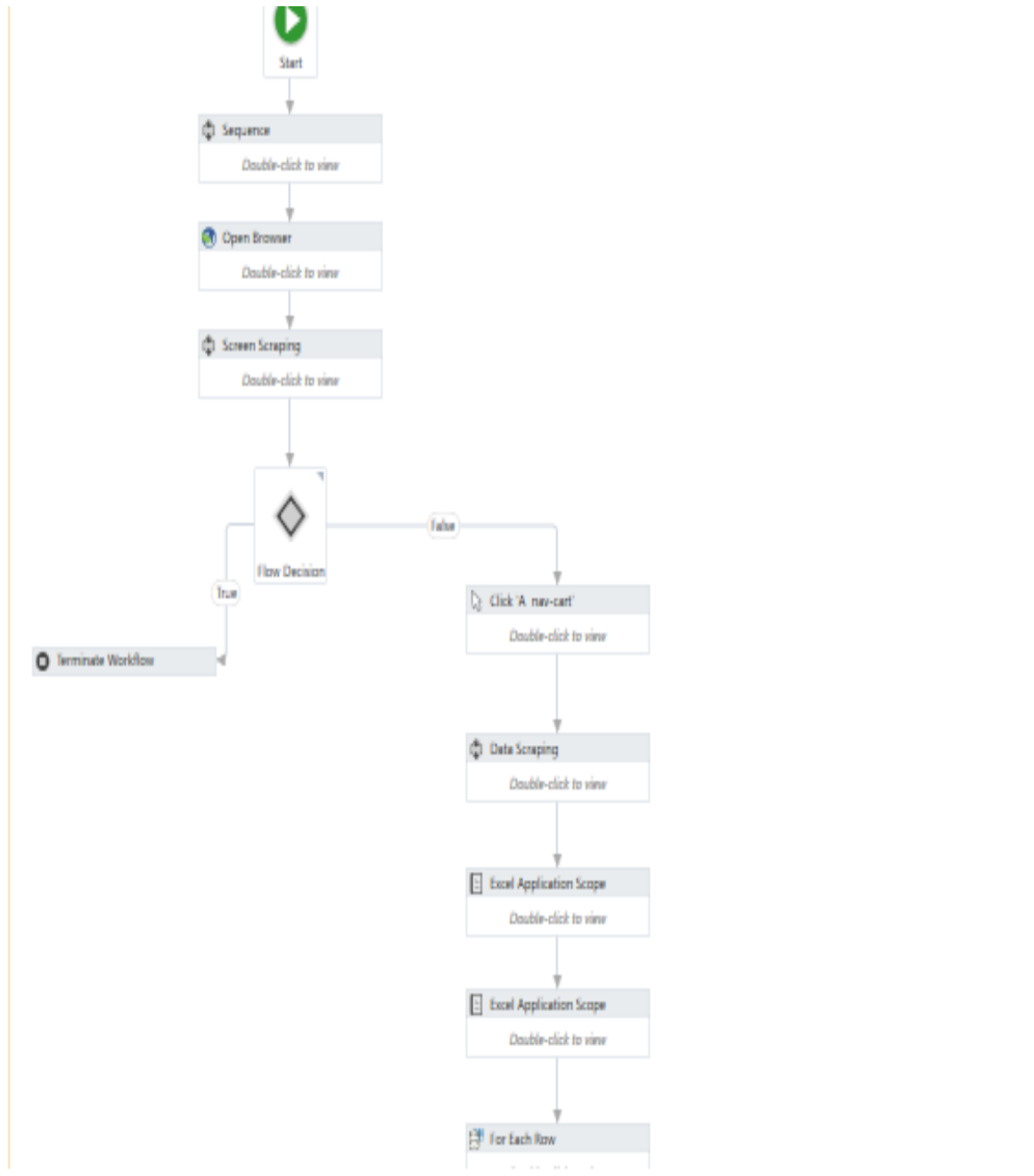
There are many types of Black Box Testing but following are the prominent ones -

- Functional testing - This black box testing type is related to functional requirements of a system; it is done by software testers.
- Non-functional testing - This type of black box testing is not related to testing of a specific functionality, but non-functional requirements such as performance, scalability, usability.
- Regression testing - Regression testing is done after code fixes, upgrades or any other system maintenance to check the new code has not affected the existing code.

## 7.3 TEST CASES

A test case in software engineering is a set of conditions or variables under which a tester will determine whether an application or software system is working correctly or not. The mechanism for determining whether a software program or system has passed or failed such a test is known as a test oracle. In

some settings, an oracle could be a requirement or use case, while in others it could be a heuristic. It may take many test cases to determine that a software program or software program or system is considered sufficiently scrutinized to be released. Test cases are often referred to as test scripts, particularly when written.



**FIGURE 7.3 TEST CASES**

## **CHAPTER 8**

### **SYSTEM IMPLEMENTATION**

#### **Robotic Process Automation (RPA) with UiPATH**

System implementation is the construction of the new system by considering the flow of activity and way to implementing it. Robotic Processing Automation known as RPA is an emerging technology that automates a process in computer using Software Robots.

Robot is a term that refers to software or applications that replicates the action of user and communicate with the system user interface. Process is said to be steps or sequence to do certain things. Automation is doing certain things automatically.

RPA is a process of creating software robots that could do certain process automatically, without human intervention.

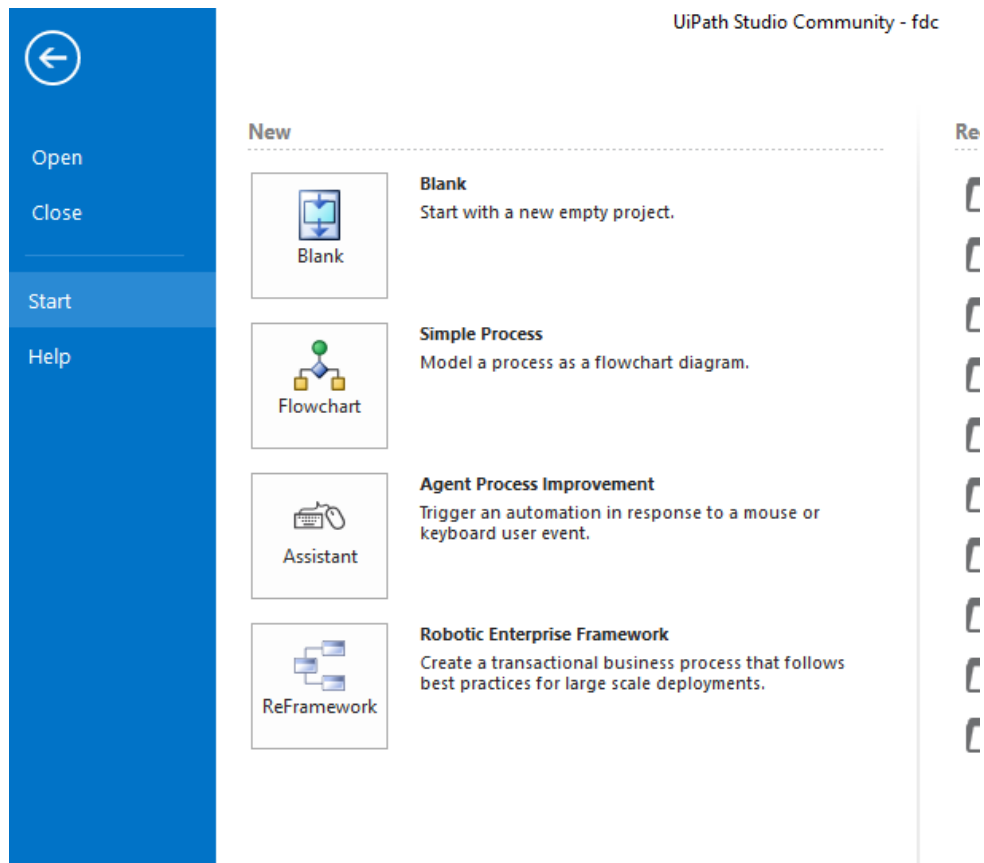
#### **Example:**

- Automatic Emails
- Data Scraping
- Automatic Document Creation

#### **Tools Available**

- Ui PATH
- Blue Prism
- Automation Anywhere
- **UiPATH**

UiPath is the best RPA tool in terms of technology. The community edition of UiPath is free of cost and anyone can download and use it. UiPath is built using .NET framework. Hence, we can use functions of C# in it. UiPath studio is the IDE that is used to create Robotic Process Automation.



## 8.1 UIPATH STUDIO

This is how the start page of UiPath Studio looks like. You can select any of the options to create a process.

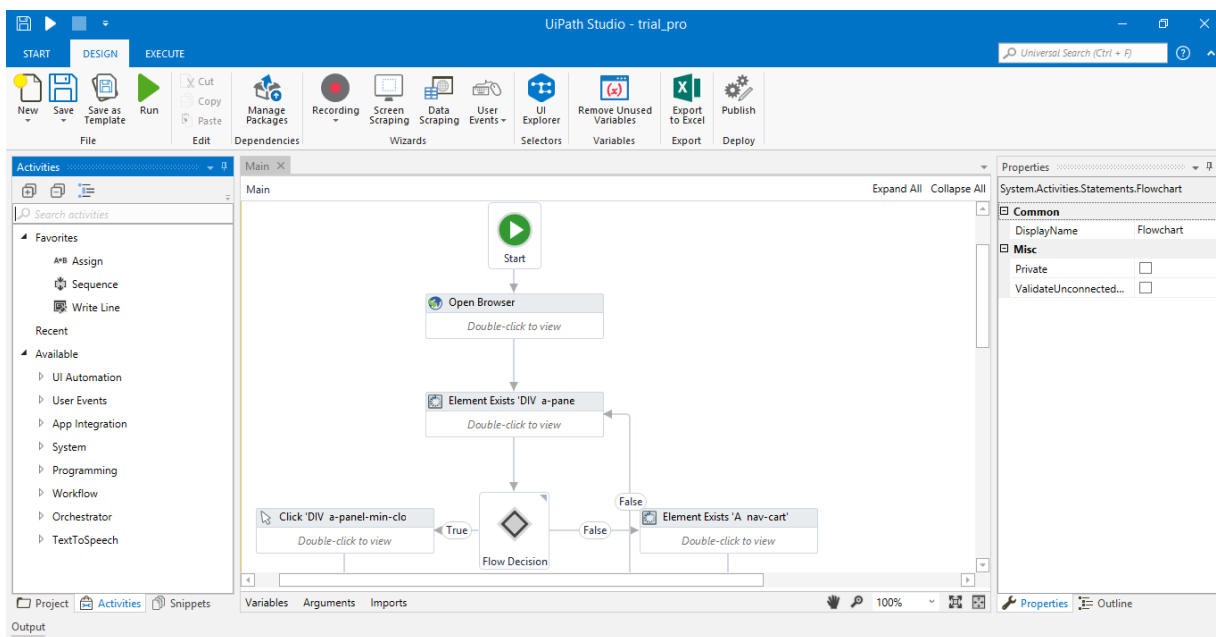
The process may be defined in two types

- **Sequence-** Sequence is used when the tasks need to be done in sequential manner.

- **Flow Charts** - Flow charts are used when there are multiple branches or conditions.

## UiPath Activities

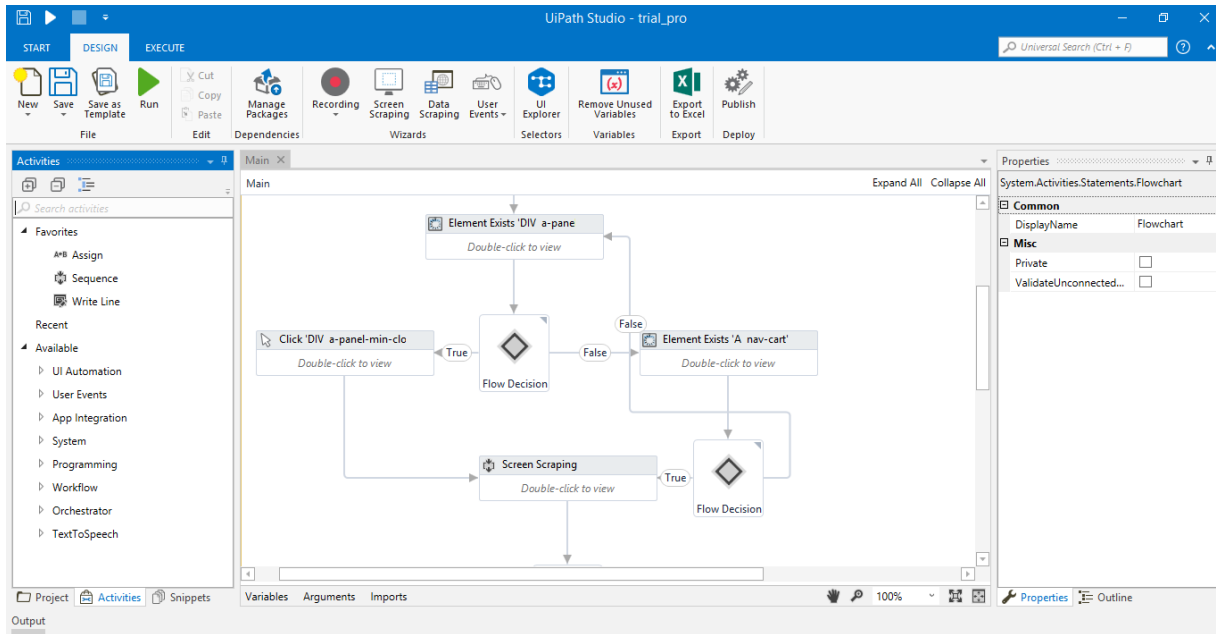
UiPath has 300+ inbuilt activities. We can also import packages like Excel, Mail, and PDF in addition to the built-in packages. These activities are available in activities pane.



**FIGURE8.1.1 ACTIVITIES PANE**

## Work Space

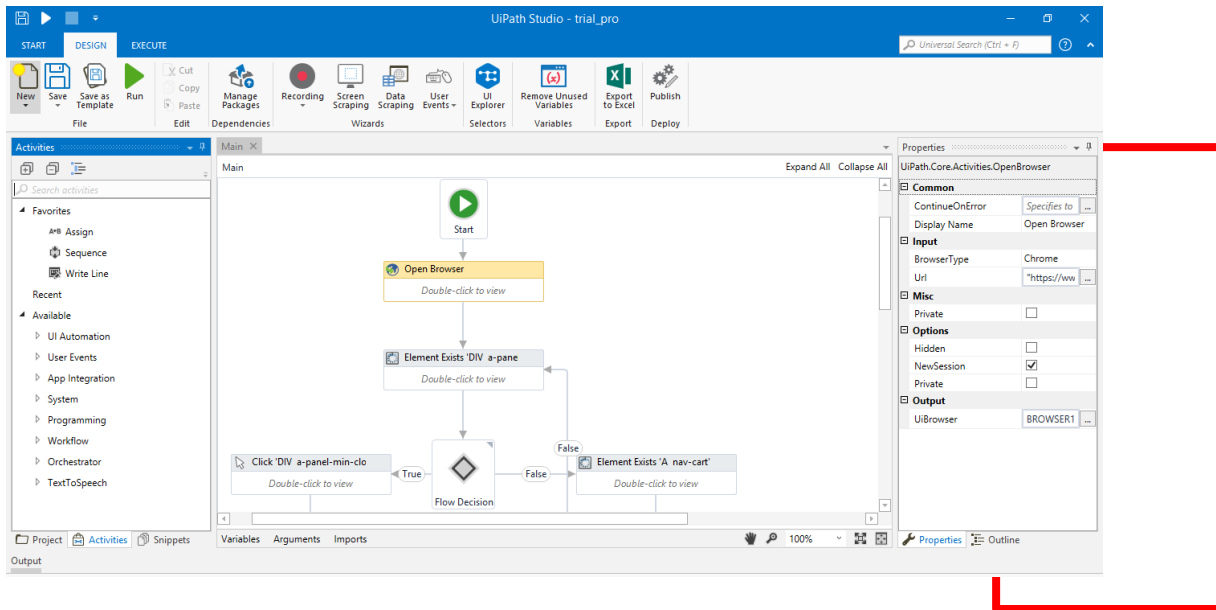
UiPath work space is the place where we actually create sequences or flow charts. The tool allows the user to create variable and store values using the variables pane or using the properties pane. The sequences and flow charts are called as workflows in UiPath.



**FIGURE 8.1.2 WORKSPACE**

## Properties Pane

In properties pane, we can give properties and values to components in work flows. Also we can create variables by hitting *ctrl* + *K* key in output textbox.



**FIGURE 8.1.3 PROPERTIES PANE**

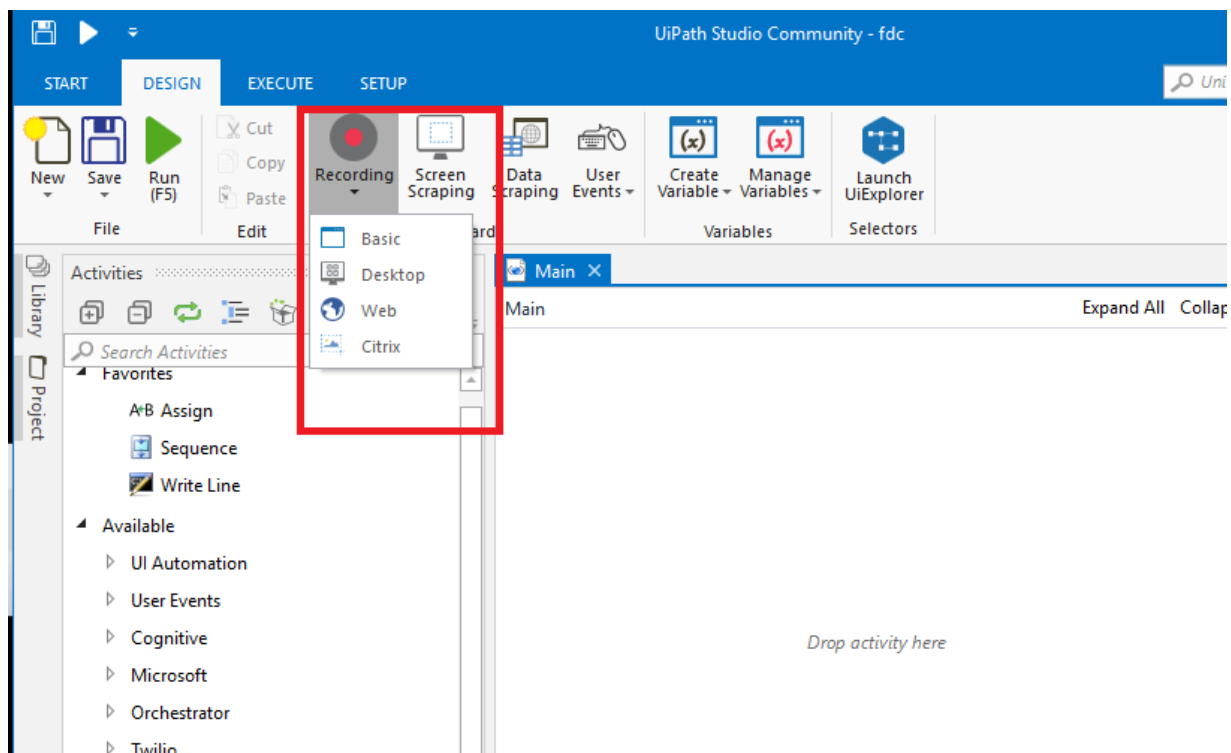


These three are the important panes in UiPath. The other panes are Output Pane, where we could see the Outputs, Logs and Error Messages and Outline pane, which shows the outline of the project.

## Record and Playback

UiPath has Record and Playback feature. This feature records the actions by humans and makes it as a sequence and makes it an automated process. There are 4 types of Recordings available in UiPath

- Basic Recording
- Desktop Recording
- Web Recording
- Citrix Recording



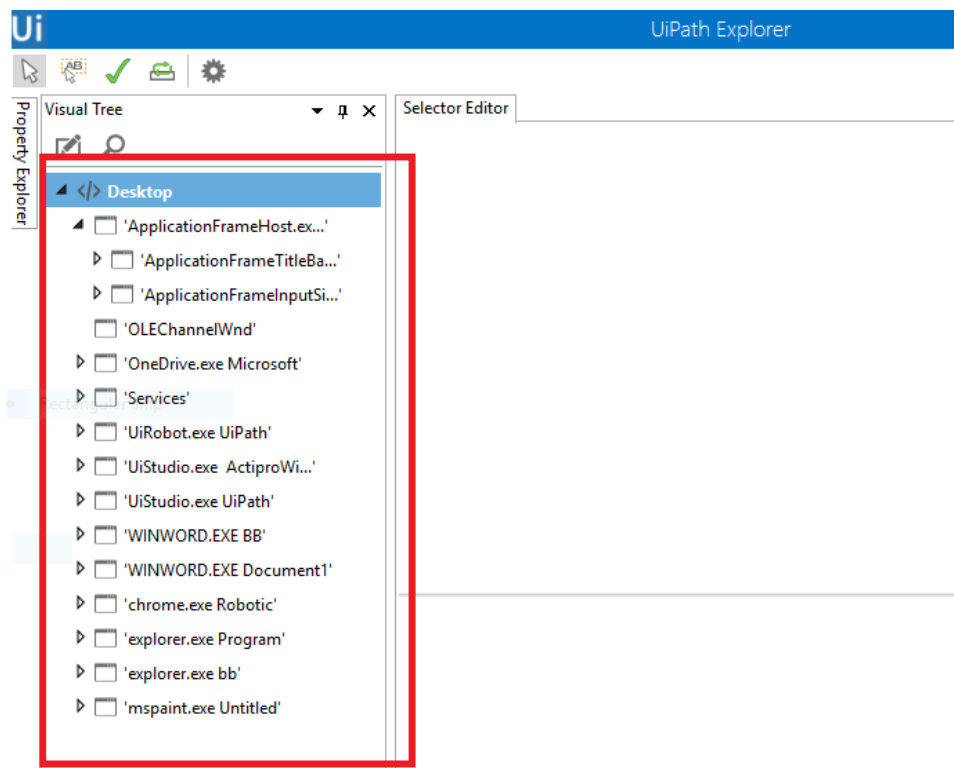
**FIGURE 8.1.4 RECORING TYPES**

### Screen Scraping and Data Scraping

Scraping is getting specific data from a page or application. Screen Scraping is used to scrape data from applications and web pages. Data Scraping is scraping data that is repetitive in structure like query results in Google Search Engine or any tabular content. It has a special wizard called Data Scraping Wizard that helps to scrape data. Data Scraping is mainly used in web pages.

### UiExplorer

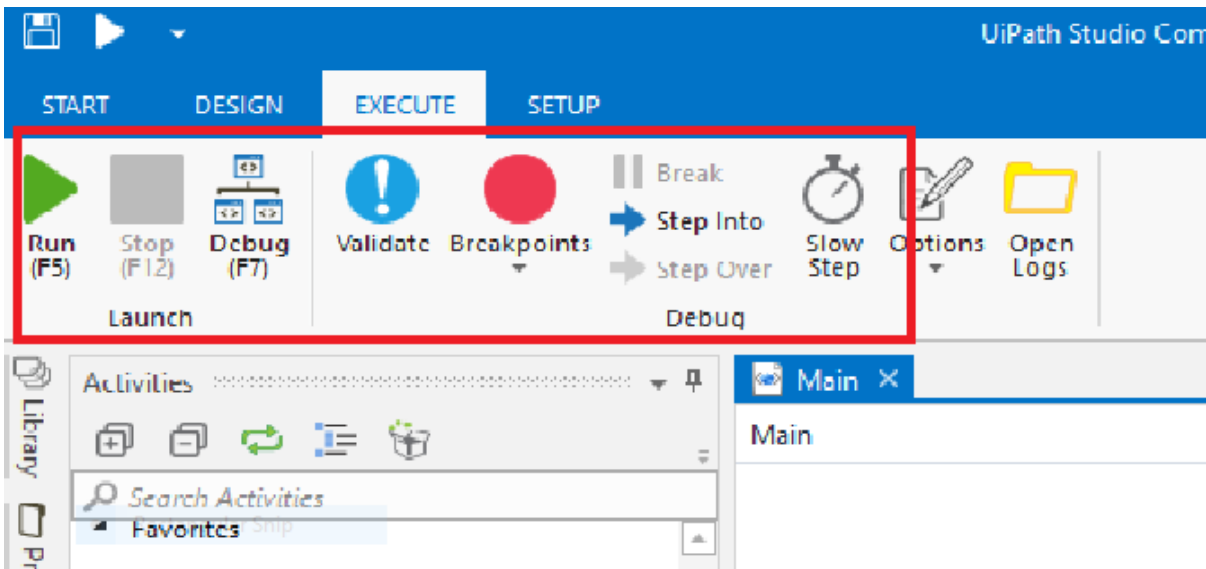
UiExplorer has details about the user interface components and selectors. A selector is basically a plain text that is used to find a particular UI element among the running applications.



**FIGURE 8.1.5 UI EXPLORER**

### **Run, Debug and Breakpoints**

Run is used to run the Software Robot in UiPath environment. Debug is used to analyse the workflows step-by-step. Break Point is used to pause the debugging at a particular step. Slow step is used to execute the bot little slower.



**FIGURE 8.1.6 RUN, DEBUGAND BREAKPOINTS**

## **CHAPTER 9**

### **CONCLUSION AND FUTURE ENHANCEMENT**

#### **9.1 CONCLUSION**

Excel manipulation have never been easier. With a wide variety of Excel Actions, WinAutomation is the undisputed automation tool for spreadsheets. Read and write data, manipulate worksheets, run Excel-Macros, transform spreadsheets, apply SQL Queries, copy/paste data, insert/delete rows and columns, loop through numerous rows of data and do pretty much anything with Excel without learning Visual Basic for Excel Macros. Excel Automation can be a walk in the park with WinAutomation and its Excel Automation Actions.

#### **9.2 FUTURE ENHANCEMENT**

A number of directions can be followed as an extension of this research. Some challenges and open questions still to be explored in the research work are as follows:

- Identifying new sources of implicit knowledge
- New methods for extraction of knowledge
- New methods to improve the performance of educational institutions

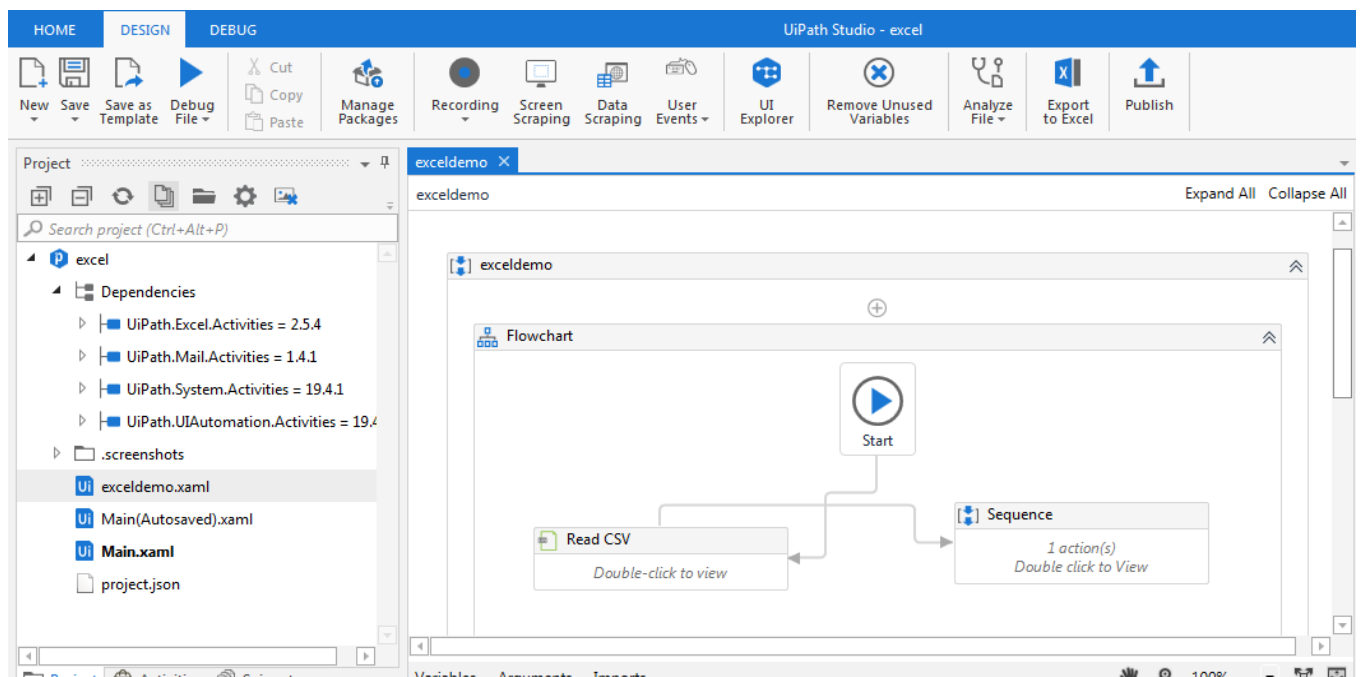
## **CHAPTER 10**

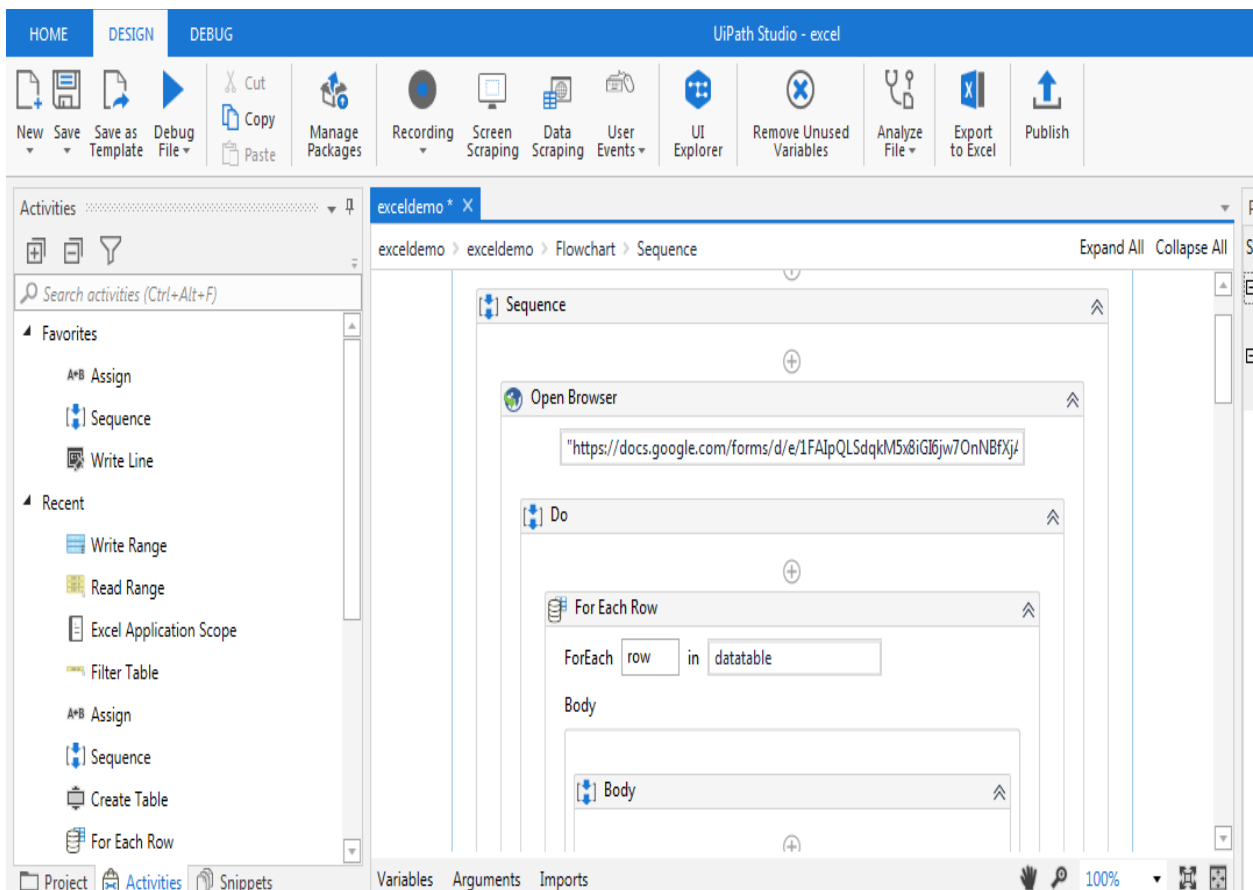
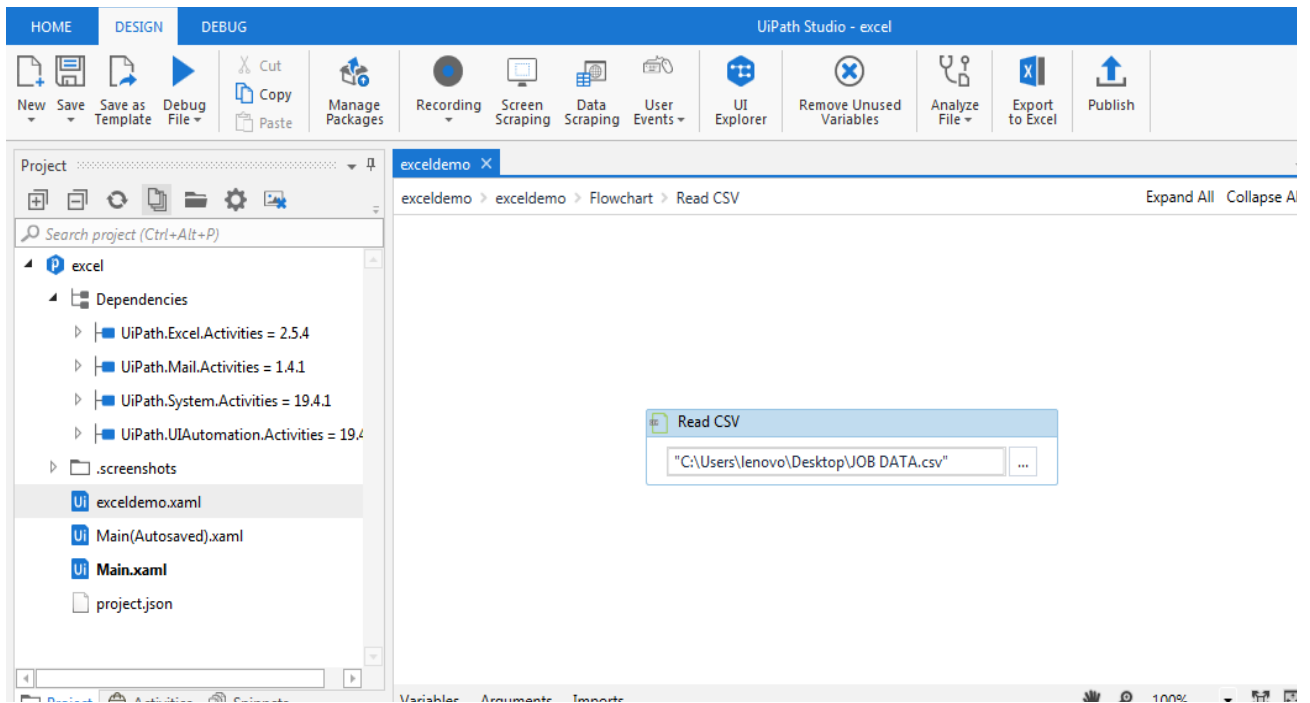
# APPENDIX

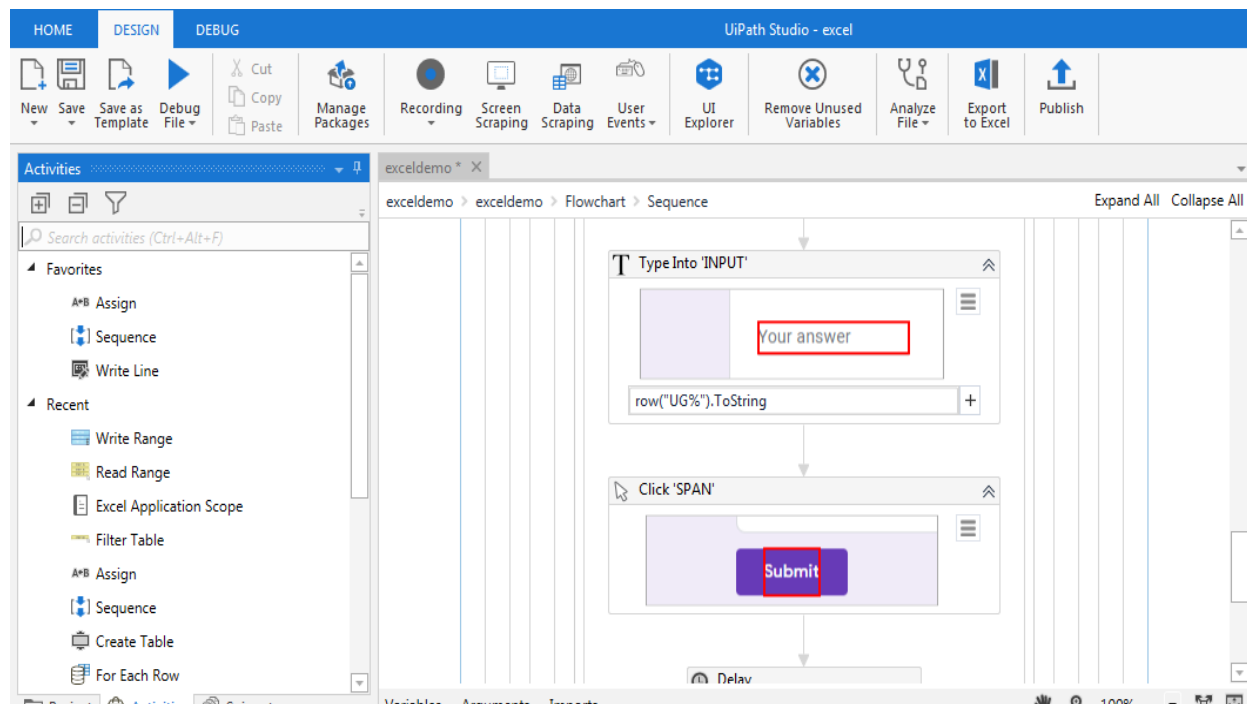
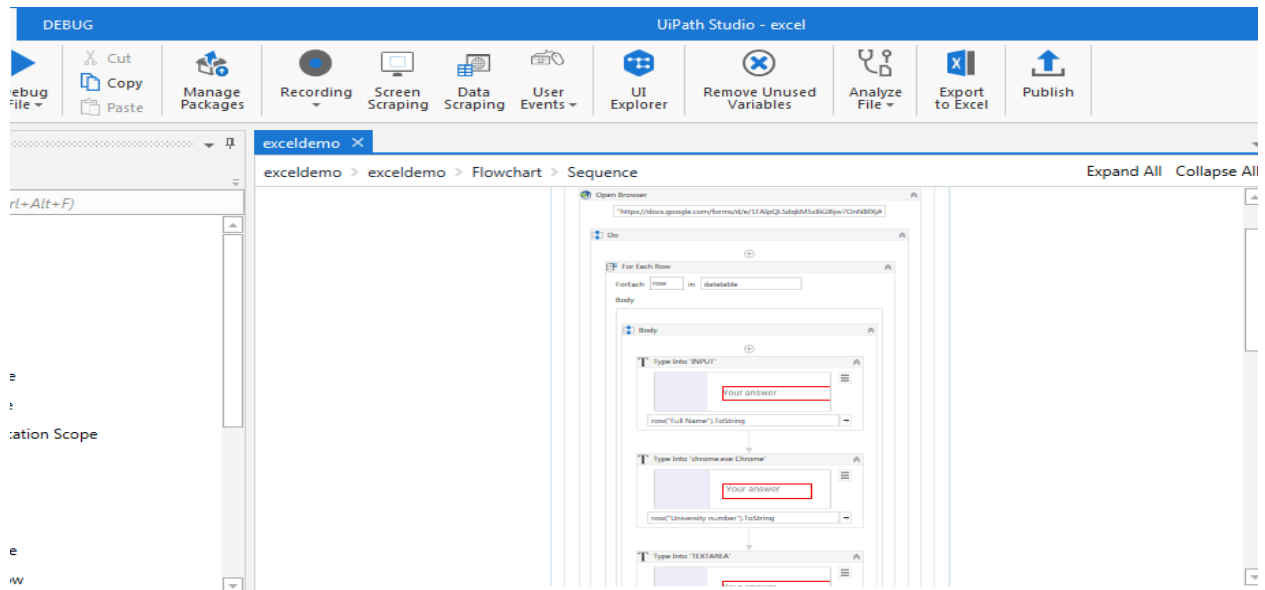
## 10.1 SCREEN SHOTS:

### 10.1.2 GOOGLE FORMS:

### INPUTS:







Microsoft Excel - JOB DATA - M

Home Insert Page Layout Formulas Data Review View

Clipboard: Paste, Cut, Copy, Format Painter

Font: Calibri, 11, Bold, Italic, Underline, Text Color, Background Color

Alignment: Wrap Text, Merge & Center

General: \$, %, Number

	A	B	C	D	E	F	G	H	I
1	Full Name	University number	Mobile no	Email id	10th%	12th%	UG%		
2	GOWTHAM M	7.11716E+11	7876526577	hfdhjd	96	96	72		
3	ABHI K J	7.11716E+11	8637524662	jhdhasjk	95	94	74		
4	ARTHI KP	7.11716E+11	7856656570	hskhah	83	93	78		
5	ANITHA S	7.11716E+11	6765645433	hasudhush	98	94	72		
6	ANUMARTIN	7.11716E+11	9654433380	jhhgduysg	95	95	73		
7	BARANI.S	7.11716E+11	9876654366	jhsduihs	88	93	74		
8	BHARATHI D	7.11716E+11	9754435566	njbc	92	92	78		
9	DEEPIKA S	7.11716E+11	9544566778	hsghi	94	92	77		
10	KISHORE K	7.11716E+11	9976543347	sybhuu	93	91	72		
11									
12									
13									
14									
15									
16									
17									
18									
19									
20									
21									
22									
23									
24									

Sheet1 Sheet2 Sheet3

## OUTPUT:

Registration Form

docs.google.com/forms/d/e/1FAIpQLSdOhOtZAz\_hTSSxKaLrJkYP1AV02WbUFmJkKbKS0JVWNTsyA/viewform?vc=0&c=0&tw=1

7117

DATE OF BIRTH

06/17/1998

PHONE NO

7339

EMAIL

Your answer

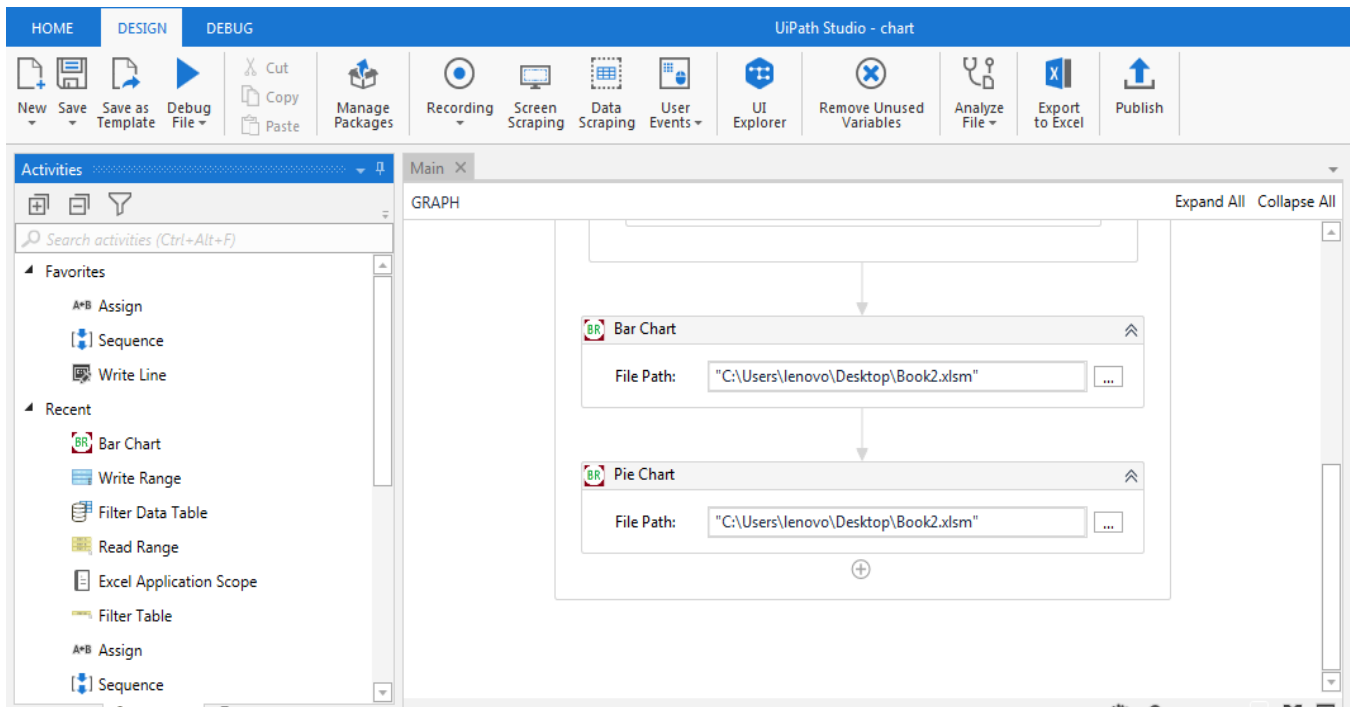
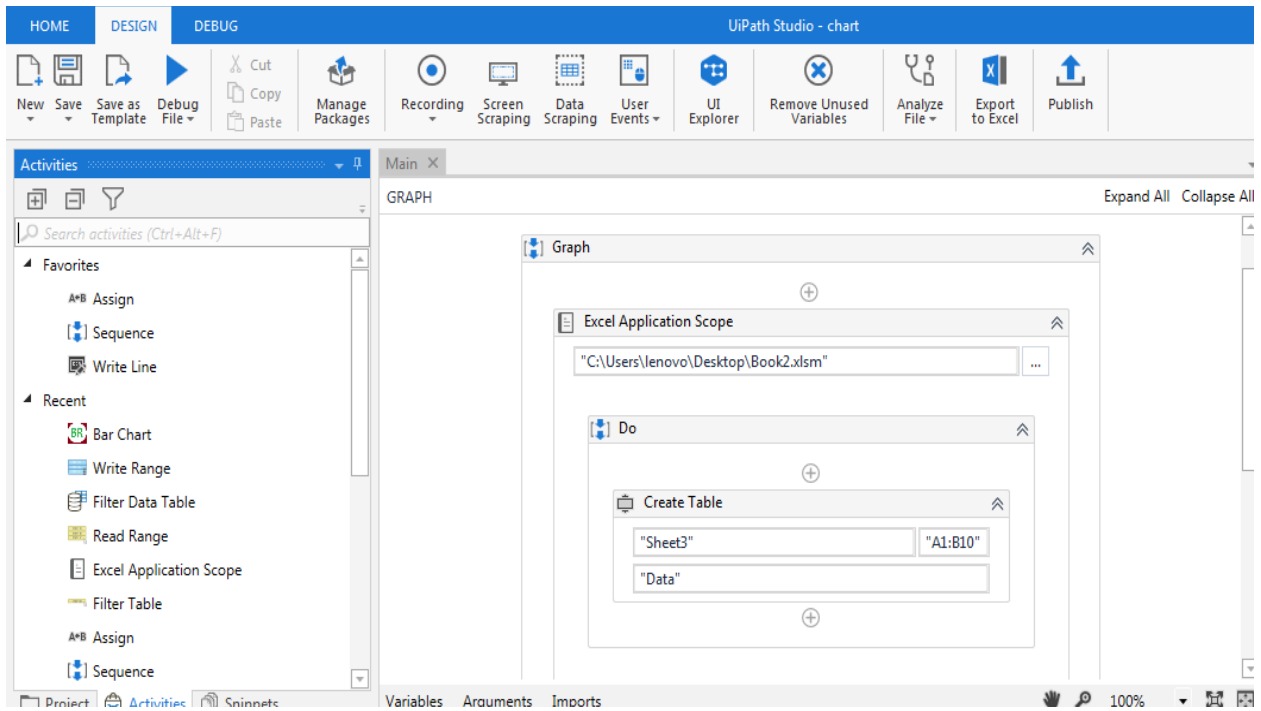
10th %

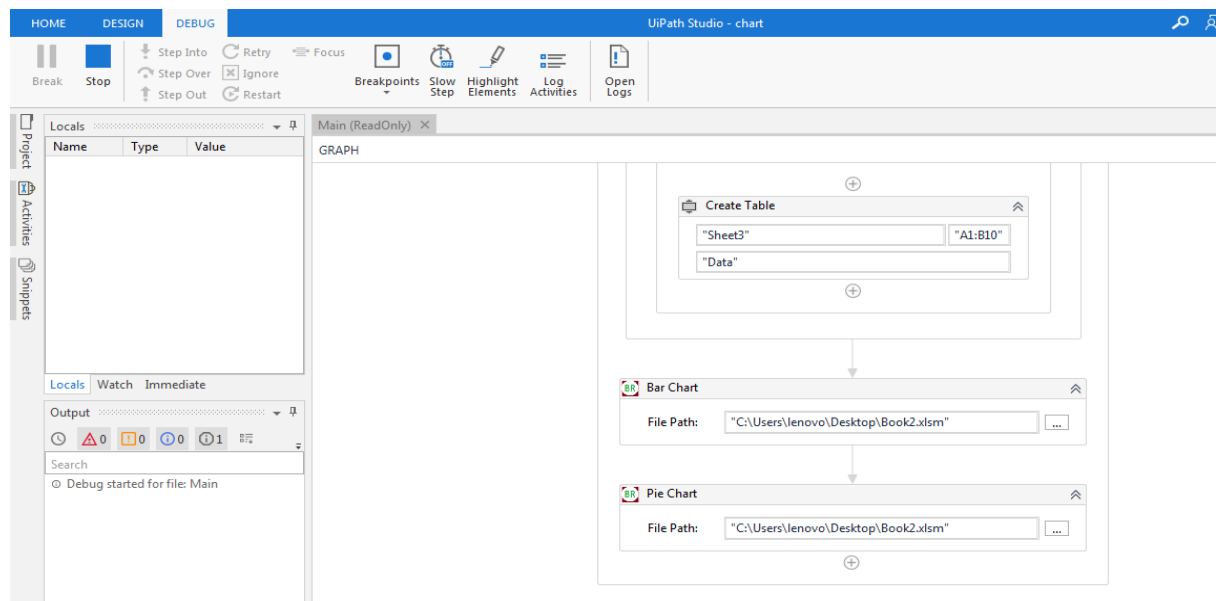
Your answer

8:08 PM 2/11/2020



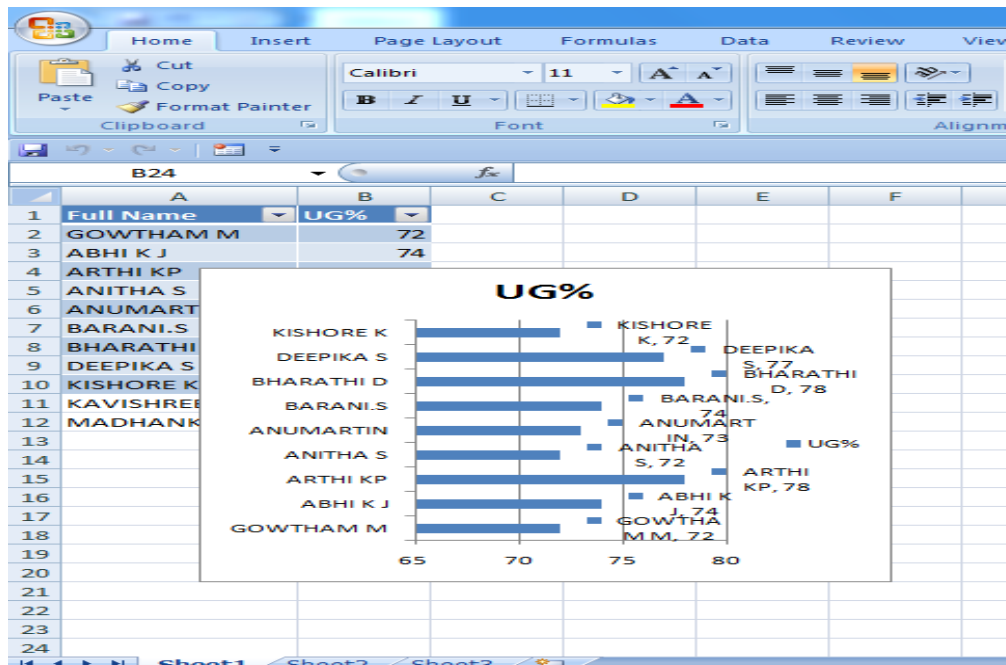
## 10.2.1 CHARTS:



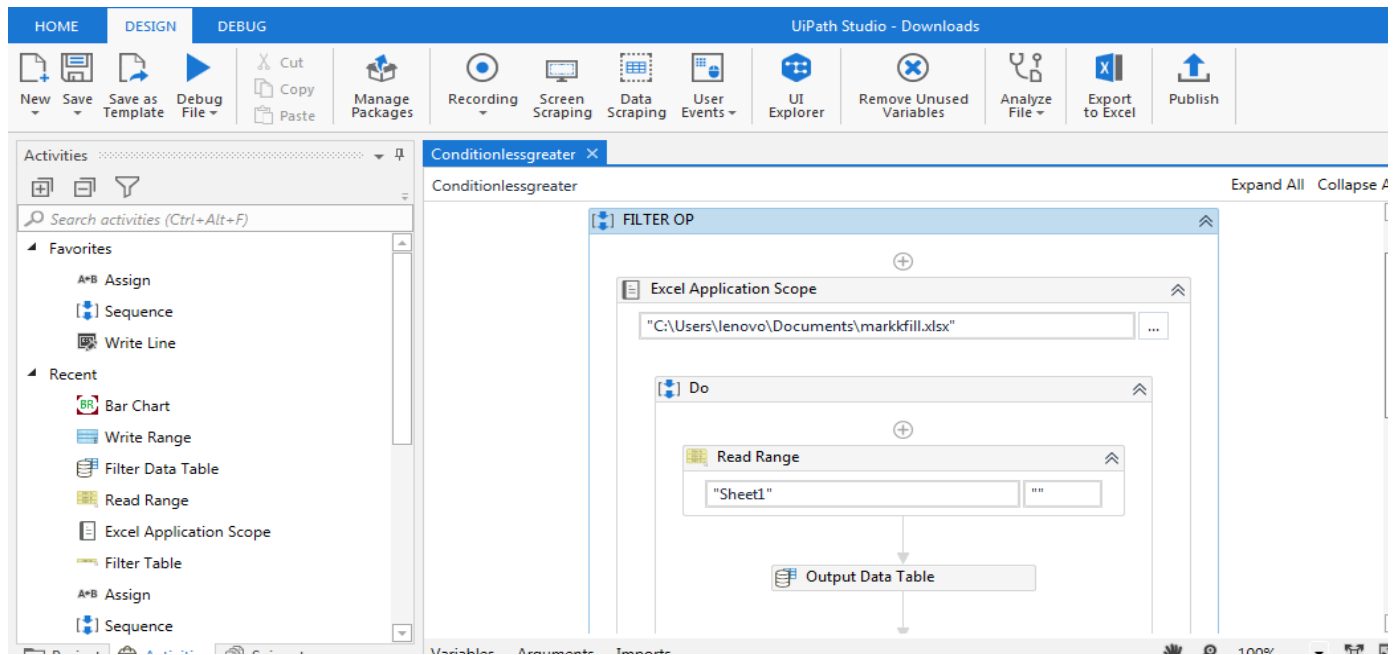


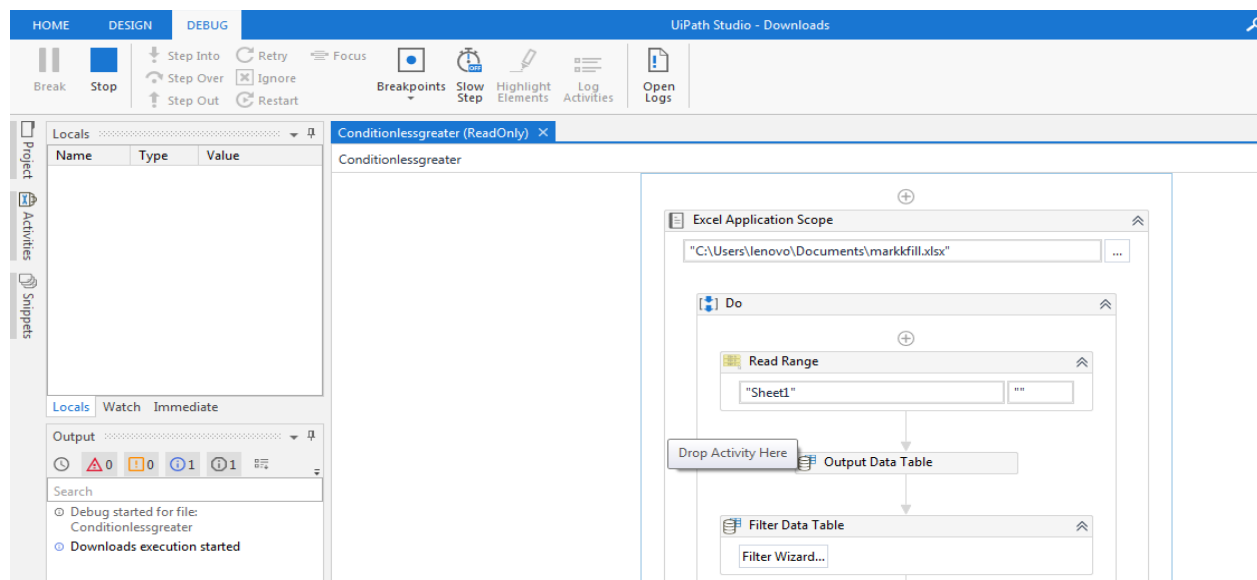
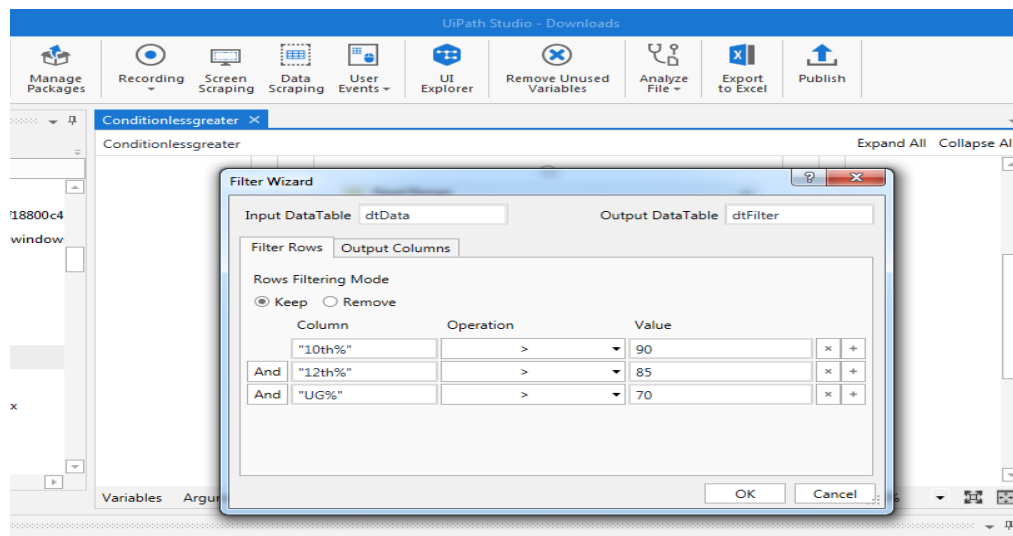
B13				
	A	B	C	D
1	Full Name	UG%		
2	GOWTHAM M	72		
3	ABHI K J	74		
4	ARTHI KP	78		
5	ANITHA S	72		
6	ANUMARTIN	73		
7	BARANI.S	74		
8	BHARATHI D	78		
9	DEEPIKA S	77		
10	KISHORE K	72		
11	KAVISHREE	78		
12				

## OUTPUT:



## 10.1.3 FILTER:





Microsoft Excel interface showing a table with the following data:

	A	B	C	D	E
1	Full Name	10th%	12th%	UG%	
2	Gowtham M	96	96	72	
3	ABHI K J	95	94	74	
4	ARTHI KP	83	93	78	
5	ANITHA S	98	94	72	
6	ANUMARTIN	95	95	73	
7	BARANI.S	88	93	74	
8	BHARATHI D	92	92	78	
9	DEEPIKA S	94	92	77	
10	KISHORE K	93	91	72	
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					

Cell B13 is selected and empty. The status bar at the bottom indicates: "Select destination and press ENTER or choose Paste".

**OUTPUT:**

Microsoft Excel interface showing the same table as above. The formula bar at the bottom is visible, indicating the active cell is B13. The status bar at the bottom indicates: "Select destination and press ENTER or choose Paste".

## CHAPTER 11

### REFERENCES

1. <http://academy.uipath.in/>referred to get basic knowledge of UiPath.
2. [https://www.winautomation.com/product/all-features/excel-automation/?utm\\_source=google&utm\\_medium=cpc&utm\\_campaign=WA\\_Search\\_Trial\\_India&adgroupid=66733189624&utm\\_term=%2Bexcel%20%2Bautomation&matchtype=b&gclid=CjwKCAjw7LX0BRBiEiwRSvLRDjvaI\\_0HQho2OCc6HEE4pWWJ](https://www.winautomation.com/product/all-features/excel-automation/?utm_source=google&utm_medium=cpc&utm_campaign=WA_Search_Trial_India&adgroupid=66733189624&utm_term=%2Bexcel%20%2Bautomation&matchtype=b&gclid=CjwKCAjw7LX0BRBiEiwRSvLRDjvaI_0HQho2OCc6HEE4pWWJ) RPA DOCUMENTATION
3. [https://www.google.com/aclk?sa=l&ai=DChcSEwjDseGFtdnoAhVEFI8KHbz4BAoYABAAGgJzYg&sig=AOD64\\_1vDVQQBXF0Ex2M-](https://www.google.com/aclk?sa=l&ai=DChcSEwjDseGFtdnoAhVEFI8KHbz4BAoYABAAGgJzYg&sig=AOD64_1vDVQQBXF0Ex2M-) Sample RPA Project.
4. <https://academy.uipath.com/advance-search/MQ%3D%3D?contenttype=learningpath>RPA foundation project.
5. <https://www.linkedin.com/pulse/robotic-process-automation-rpa-introduction-beginners-kapil-kathuria> - to know about RPA its future implementations.
6. Google form filling for placement by automation process.
7. <http://www.edureka.co/blog/uipath-automation>
8. <http://xltools.net/excel-automation/>