# Robotic Process Automation using UiPath

## Topic 3- Activity Recording, UI Automation in StudioX

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# COURSE OBJECTIVES

- Introduction to RPA
- StudioX Citizen Developer Journey and Working with StudioX
- Activity Recording, UI Automation in StudioX
- Decisions, Iterations, and Scenarios in StudioX
- File, Folder Automation in StudioX: Microsoft Excel Automation
- Email & SAP Automation in StudioX
- Handle Errors in StudioX

# 3. Activity Recording, UI Automation in StudioX

- ❑ Introduction to UI automation
- ❑ Recording UI interactions
- ❑ The UI automation activities
- ❑ Extracting data from an application

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# INTRODUCTION TO **UI AUTOMATION**

A user interface (or UI) is a point of interaction between computers and human users. With its help, humans can communicate with computers and other digital systems, be it applications or a webpage.

StudioX offers a dedicated activity pack for UI automation: **App & Web Automation**. Moreover, you can also make use of a variety of tools that we'll cover in the next lessons, one by one, including the activity pack: the **Recorder**, the **Object Repository**, the **UI Activities**, and the **Table Extraction tool**.

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# INTRODUCTION TO **UI AUTOMATION (Contd..)**

**Input activities**

The input activities send information (or input) to UI elements we wish to interact with.
A few examples: **Click**, **Type Into**, **Check/Uncheck**, **Keyboard Shortcuts**.

**Output activities**

This type of activity retrieves information from a UI, in various forms: text, structured data or images.

A few examples: **Get Text**, **Extract Table Data**, **Get URL**.

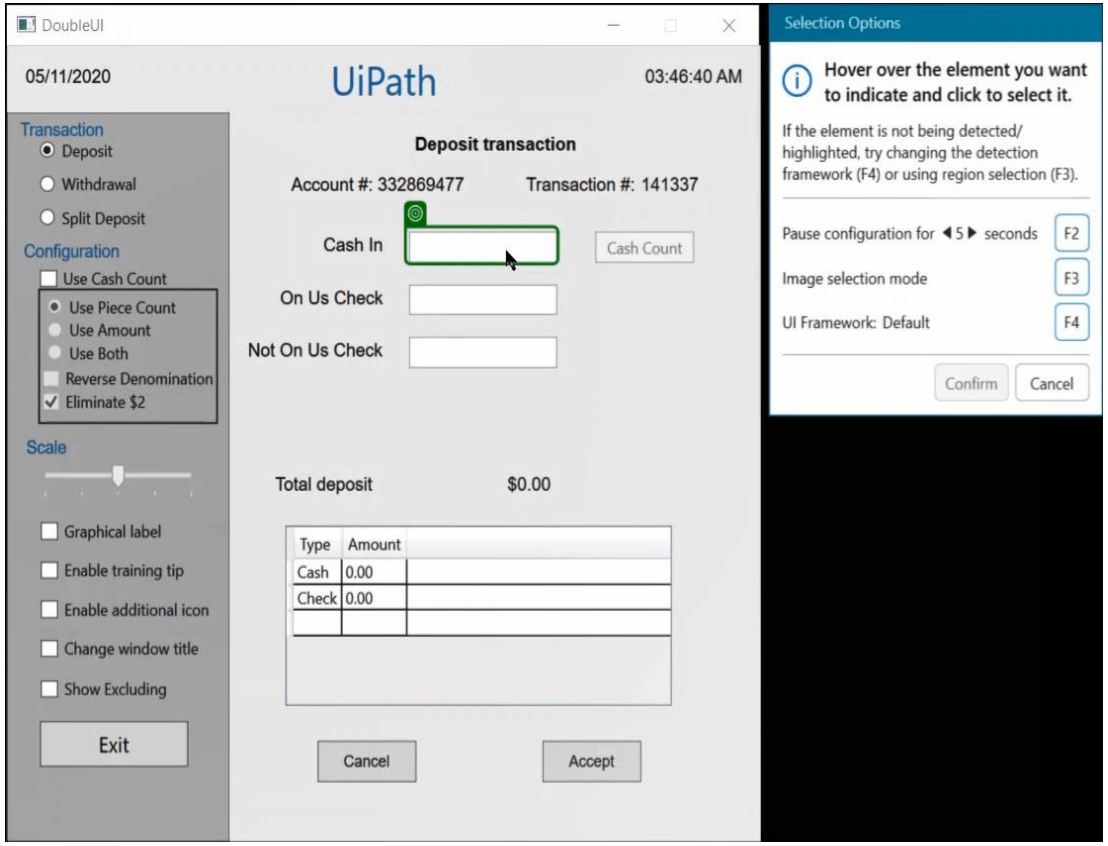
**Synchronizing activities**

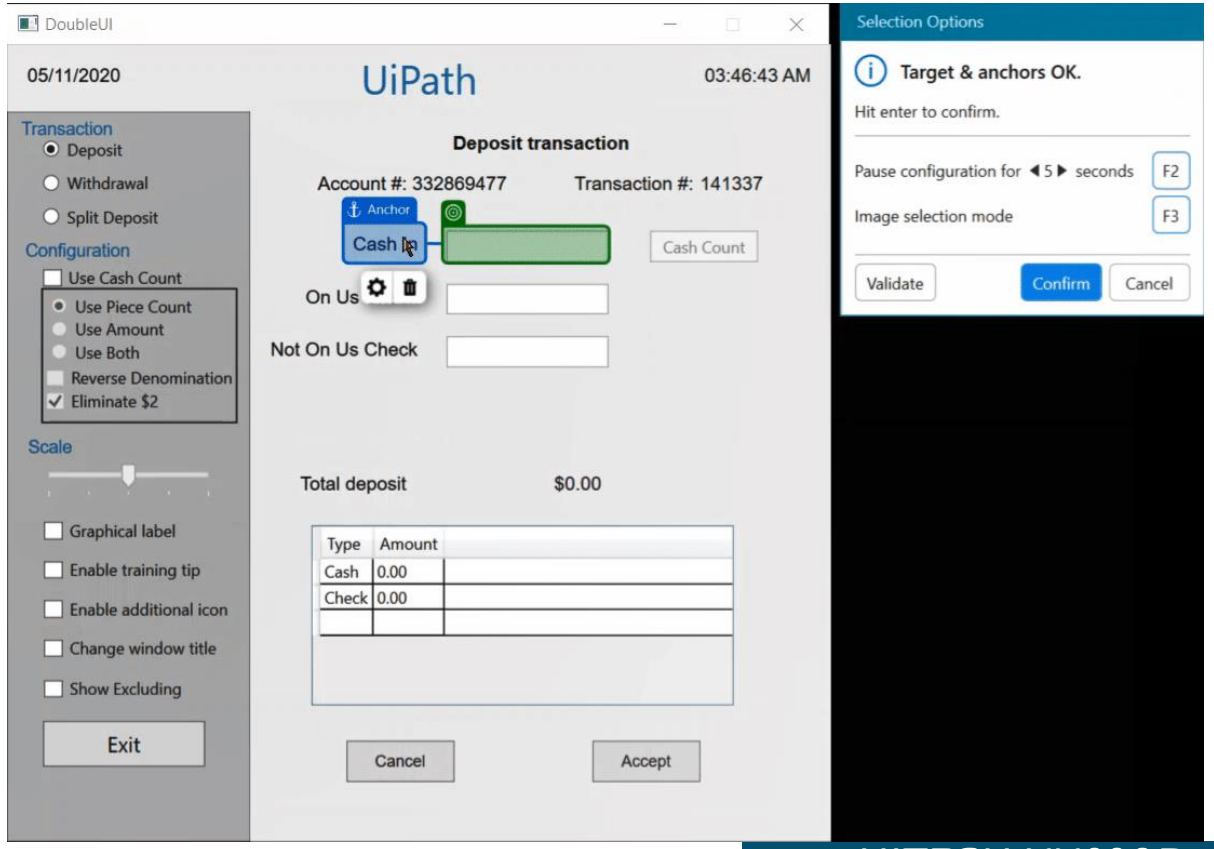
The synchronizing activities tell the robot when to execute an action, based on certain triggers. This can come in very handy when the UI changes or needs time to change during an automation.

A few examples: **Wait for Download**, **Check App State**.

# INTRODUCTION TO **UI AUTOMATION (Contd..)**

One of the most important aspects you need to know when it comes to UI automation is targeting. This can be done through **targets** and **anchors**. With their help, we indicate the target applications or elements on the screen with which we want the automation to interact. These elements are called targets and they can be fixed or dynamic. Anchors are fixed elements near targets, with which the automation can identify unique targets.

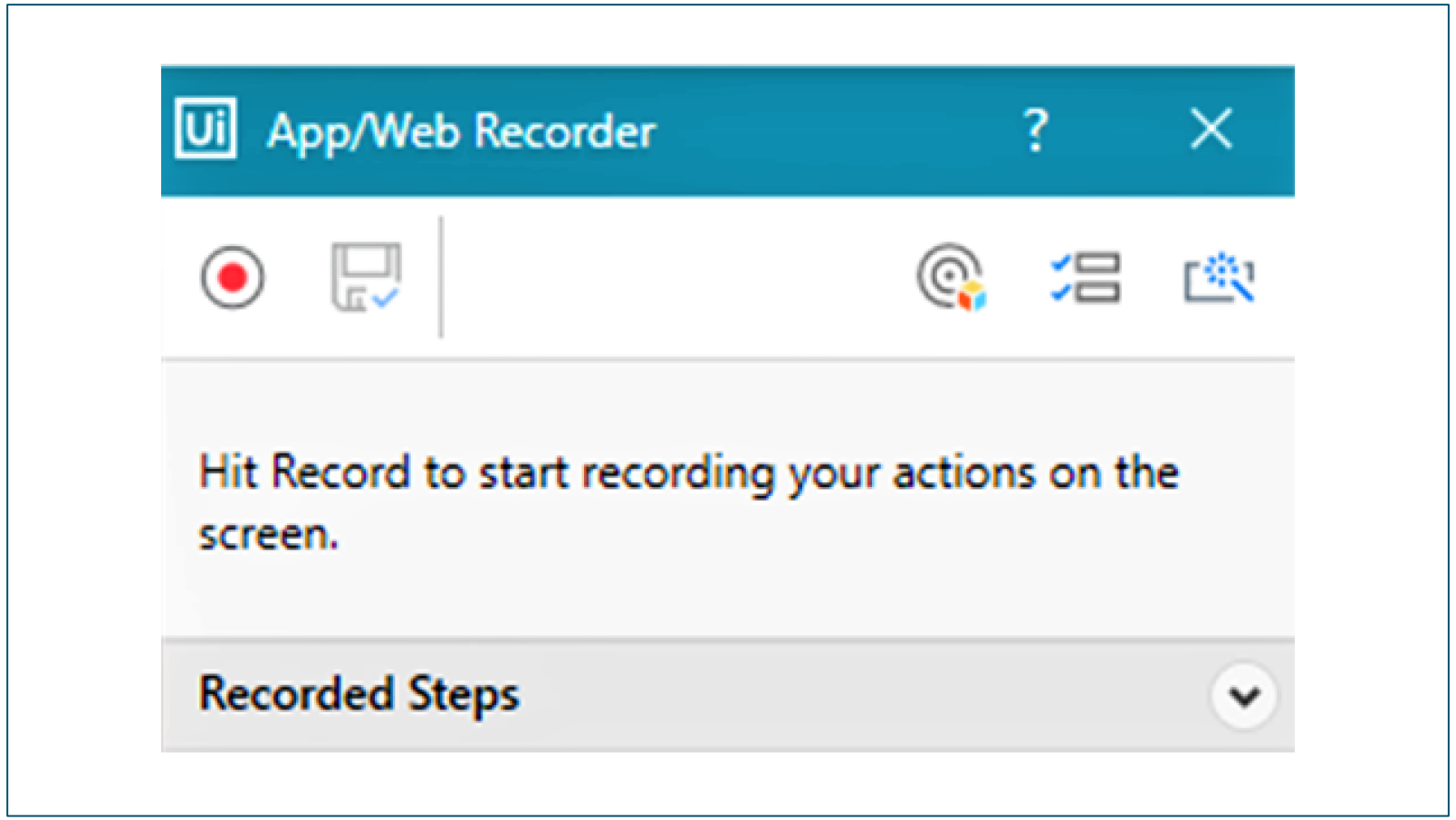


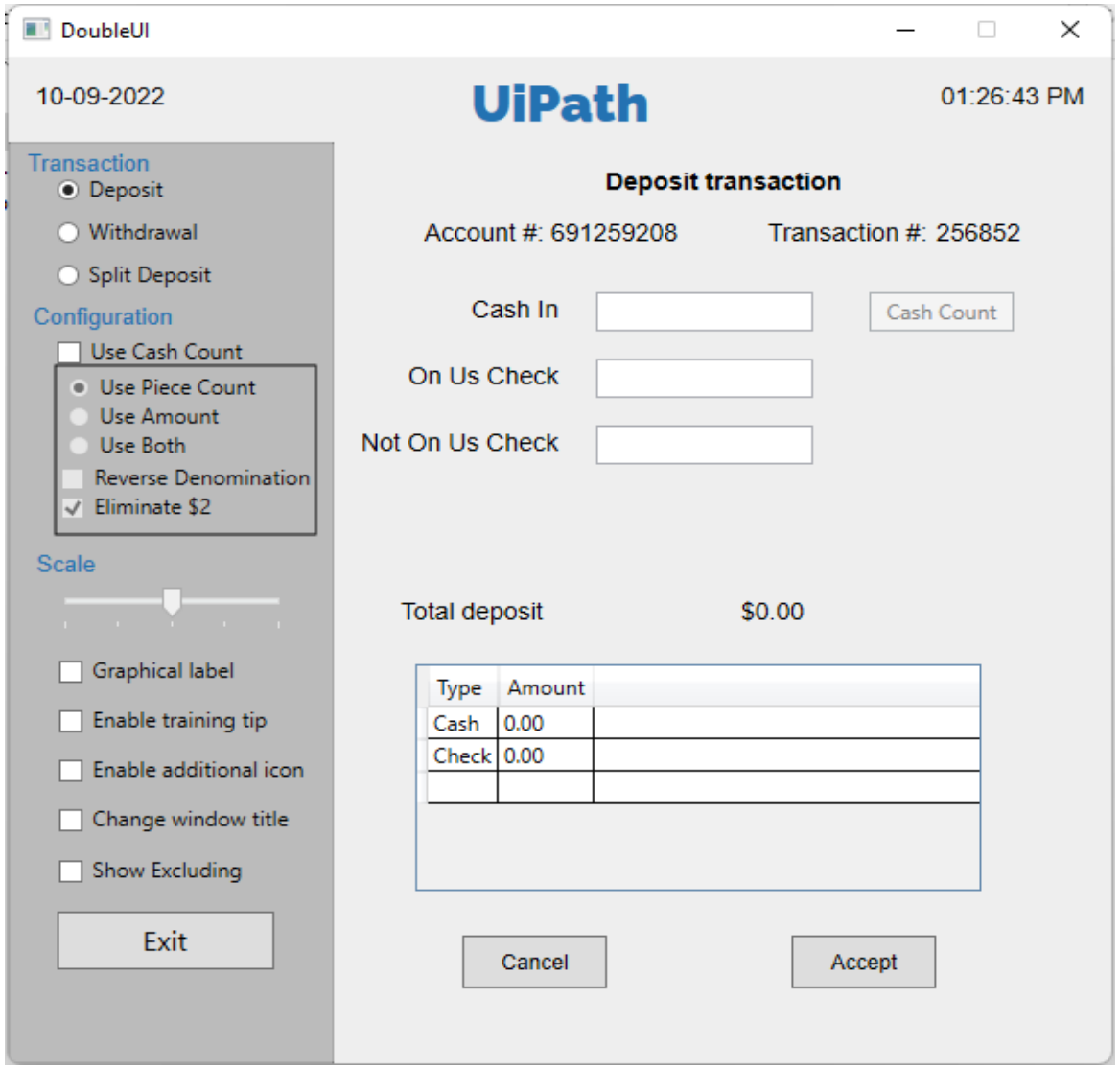
# **RECORDING** UI AUTOMATION

With the help of the Recorder, we can capture a set of actions on screen when working with an application. The tool will automatically translate them into StudioX activities, for faster development. We can also configure the activities directly while using the Recorder.

# **RECORDING** UI AUTOMATION (Using Recorder)



# **RECORDING** UI AUTOMATION (Demo Application)



# **RECORDING** UI AUTOMATION (Hand-On)

In this hands-on we will be working on an application which is a basic banking application.

In developing the automation you'll use the following input files and applications:

1.The Double UI App - This is an application which is going to be used for this exercise.
2.MyExcel-UI-Automation- This is an excel file which is going to be sued for providing input to the application

# THE UI **AUTOMATION ACTIVITIES**

You can find the UI automation activities in the Activity panel in StudioX, under the App/Web Automation category. The specific resource, as mentioned before, is **Use Application/Browser**, which will indicate to the robot which UI is the object of the automation project.

**Hardware Events**

**Simulate**

# THE UI **AUTOMATION ACTIVITIES (Hands-on)**

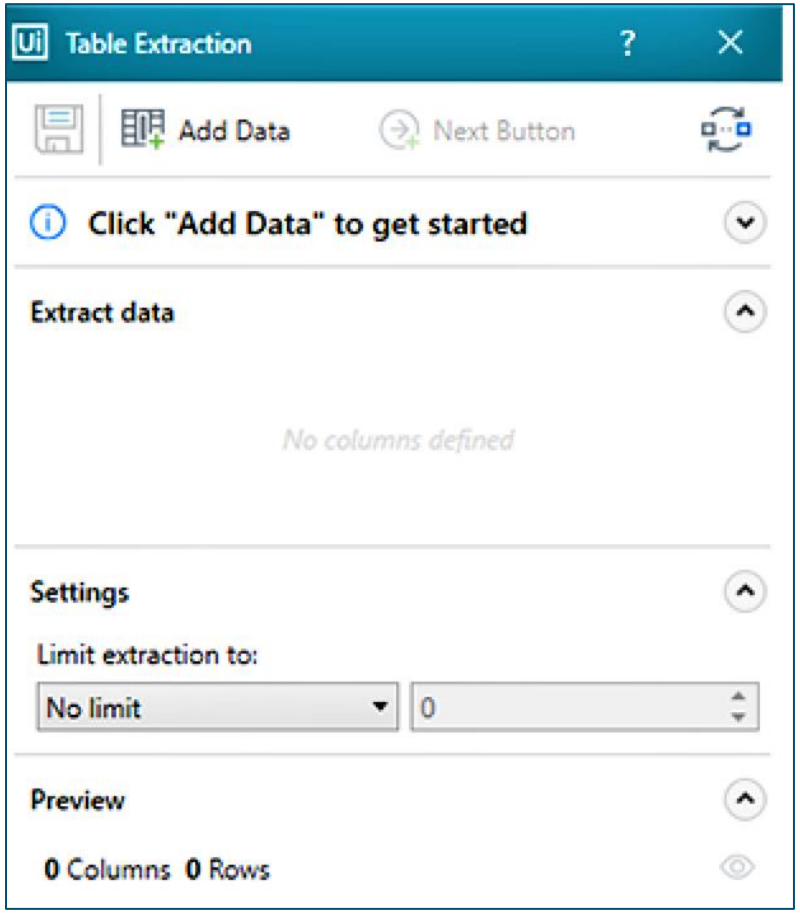
This Lab exercise is used for demonstration of UI Automation Activities

We have used the following input files and applications:

1.The UI Demo App - this is the dummy bank teller app we'll be using to get the transaction numbers.
2.MyExcel-UI-Automation- This is an excel file which is going to be sued for providing input to the application

# EXTRACTING DATA FROM AN APPLICATION

StudioX will detect data with a pattern or structured data that is present in a table in the target application. When the target information is identified, it will be distinguished from the other UI elements and preserved.

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# EXTRACTING DATA FROM AN APPLICATION (Hands-on)

**Report: Opportunities** Export

Total Records
18

| | Account Name | Country | Opportunity Owner | Stage | Quantity | Unit Sales Price | Total Price | List Price |
|---|---|---|---|---|---|---|---|---|
| 1 | VPN Service | France | Jane Pebble | Closed Won Booked | 10 | EUR 7,980 | EUR 79,800 | EUR 8,000 |
| 2 | HR Provider | Germany | Helen Rock | Negotiation | 1 | EUR 10,000 | EUR 10,000 | EUR 10,500 |
| 3 | Wood Provider | USA | Mark Stone | Closed Won Booked | 250 | USD 3,000 | USD 750,000 | USD 4,000 |
| 4 | Modern Metal | Japan | Bob Gravel | Proposal | 5 | JPY 212,875 | JPY 1,064,375 | JPY 250,000 |
| 5 | Secure VPN Provider | India | Patricia Clay | Proposal | 10 | INR 45,750 | INR 457,500 | INR 50,000 |
| 6 | Bank | USA | Mark Stone | Proposal | 50 | USD 2,895 | USD 144,750 | USD 4,000 |
| 7 | Metal Provider | Germany | Helen Rock | Closed Won Booked | 15 | EUR 2,000 | EUR 30,000 | EUR 3,500 |
| 8 | Secure Systems | Australia | James Silt | Negotiation | 45 | USD 2,000 | USD 90,000 | USD 2,000 |
| 9 | Secure VPN Provider | Paris | Mary Sand | Closed Won Pending | 3 | EUR 2,600 | EUR 7,800 | EUR 2,600 |
| 10 | Smart Bank | Japan | Bob Gravel | Discovery | 8 | JPY 241,250 | JPY 1,930,000 | JPY 325,000 |
| 11 | Energy Provider | France | Jane Pebble | Negotiation | 4 | EUR 1,200 | EUR 4,800 | EUR 1,250 |
| 12 | Big Market LLC | USA | Mark Stone | Closed Won Pending | 9 | USD 1,430 | USD 12,870 | USD 2,600 |
| 13 | HR Top Recruitment | France | Jane Pebble | Closed Lost | 3 | EUR 2,000 | EUR 6,000 | EUR 2,000 |
| 14 | Godzilla LLC | Germany | Mark Stone | Proposal | 20 | EUR 1,300 | EUR 26,000 | EUR 2,000 |

# TOPIC 3
END

# THANK YOU