

IEEM535300

智慧化企業整合

Robotic Process Automation

助教 馮品叡

OUTLINE

- Introduction RPA & UiPath
- Install UiPath & 介面介紹
- Activities & 功能
- 實作練習 & Homework
- Reference



INTRODUCTION RPA & UIPATH

Introduction RPA(1/2)

什麼流程適合自動化？



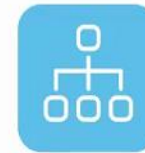
高度手動與
重複性的流程



有明確規則
的流程



低例外率
的流程



具標準電子化輸
入類型的流程



高交易量的
流程



成熟穩定的
流程



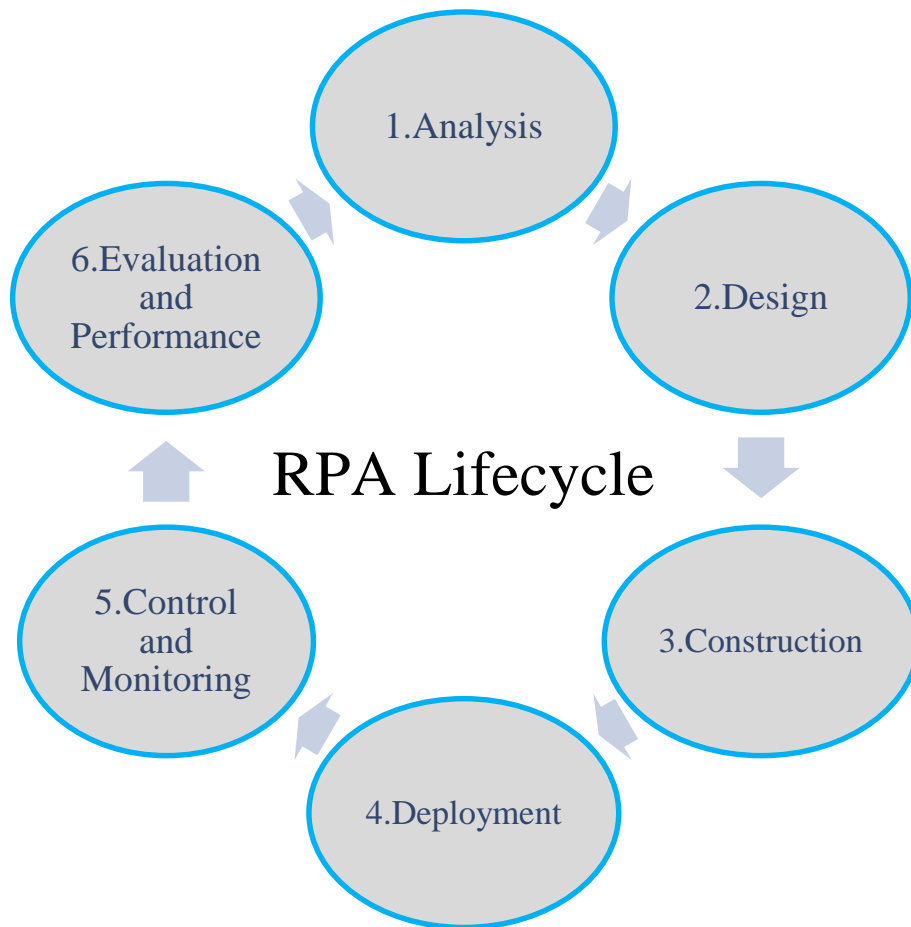
耗費大量人力
的流程



需多系統間不斷
切換操作的流程

引用文獻[3]

Introduction RPA(2/2)



Step1 考慮並分析流程可行性及特性

Step2 詳細說明RPA流程中必須執行的操作，數據流，活動等。

Step3 建構流程構成要素

Step4 給robot一個環境執行工作

Step5 控制和監視每個機器人的性能。

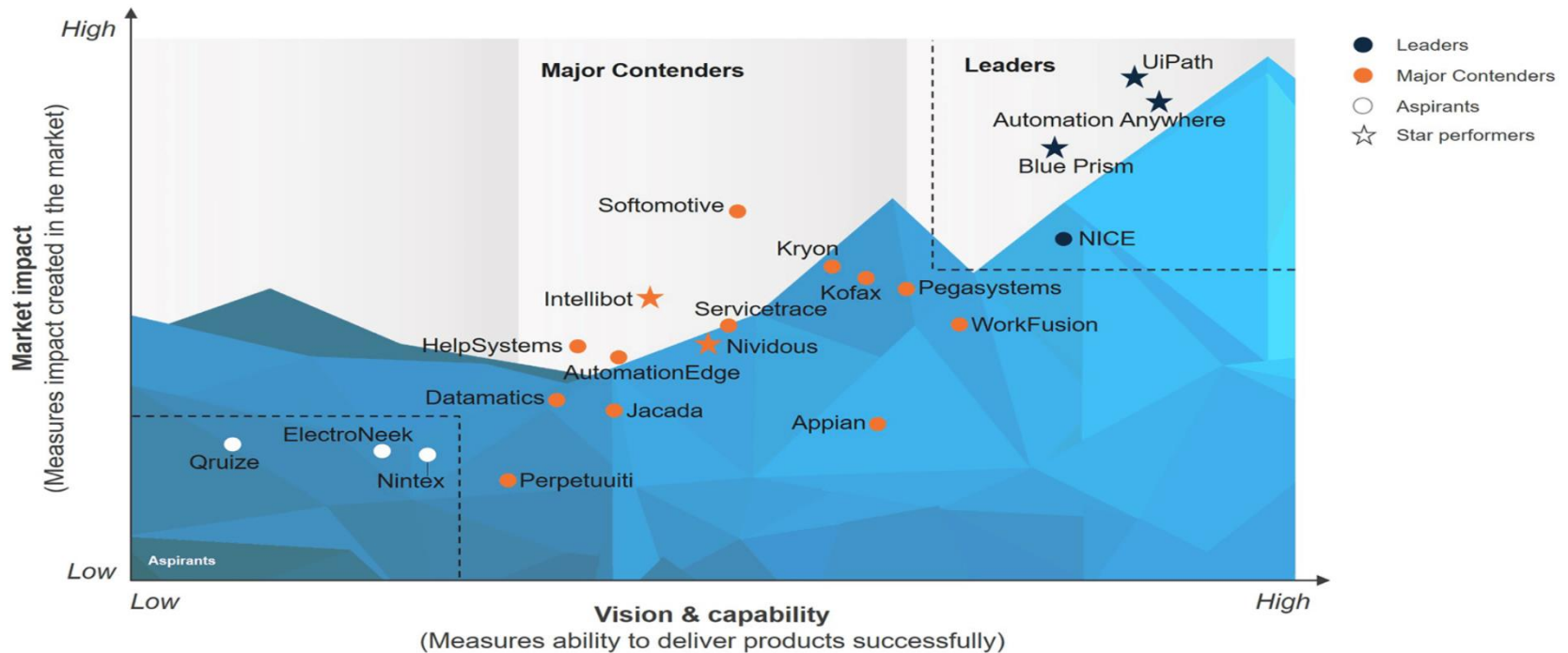
Step6 評估機器人的表現

Introduction UiPath(1/3)

uipath.com



Everest Group Robotic Process Automation (RPA) Products PEAK Matrix® Assessment 2020¹



¹ Analysis for Softomotive is based on capabilities before its acquisition by Microsoft

Introduction UiPath(2/3)

RPA操作採用 UiPath 因素：

- UiPath 提供免費試用版本供初學者練習
- Blueprism 並無試用版本
- AUTOMATION ANYWHERE 試用版有限制

Features	UiPath	Blue Prism	Automation Anywhere
How will I practice?	Has a Community Edition/ Free Edition Available	No trial version available, have to purchase this tool to learn	Trial Version available, but expires after 30 days.
Learning Curve	Has a user friendly visual designer, hence easy to learn and implement	Has a visual designer, easier than Automation Anywhere	Developer Friendly – Requires Higher programming skills
Google Trends Popularity	Most Popular tool	More Popular than Automation Anywhere	Least Popular of the three

Introduction UiPath(3/3)

UiPath has three key parts to its RPA platform:

- 1) **UiPath Studio** – a flowchart-based visual process modelling tool
- 2) **UiPath Orchestrator** – a web-based management console, which helps the admin to manage the robots, offering though a clear image of what is running and what is each robots' status
- 3) **UiPath Robot** – robots designed in UiPath Studio, which run and are being managed through UiPath Orchestrator

INSTALL UIPATH & 介面介紹

Install UiPath(1/3)

<https://www.uipath.com/>



Product Solutions About RPA Resources Company Support & Services

English Contact Us

Try UiPath Free

Hello, we're UiPath.

We make robots so people don't have to *be* robots.

Try UiPath free

Feedback

UiPath DevCon



引用文獻[1]

Install UiPath(2/3)

選擇一個方式登入註冊

UiPath Platform

- Get the only platform built for hyperautomation
- Everything you need to build and manage automation enterprise-wide
- Start now with the free UiPath Automation Cloud for community

Need unlimited robots, full capabilities, or dedicated support?

[Try Automation Cloud for enterprise](#)

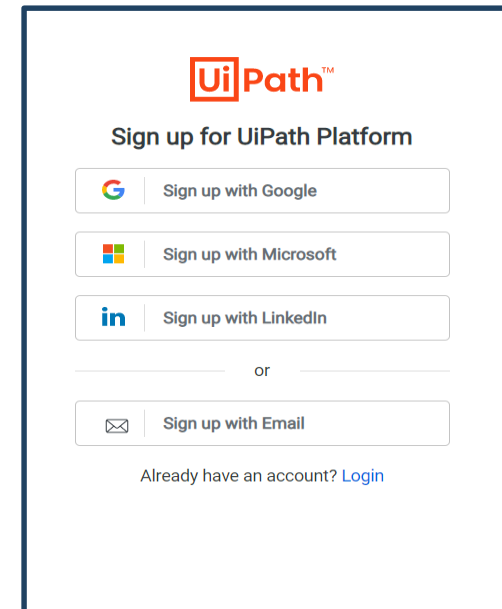
Prefer an on-premises solution?

[Try Enterprise Server](#)

[Try Enterprise Studio](#)

Want to turn great ideas into great automations?

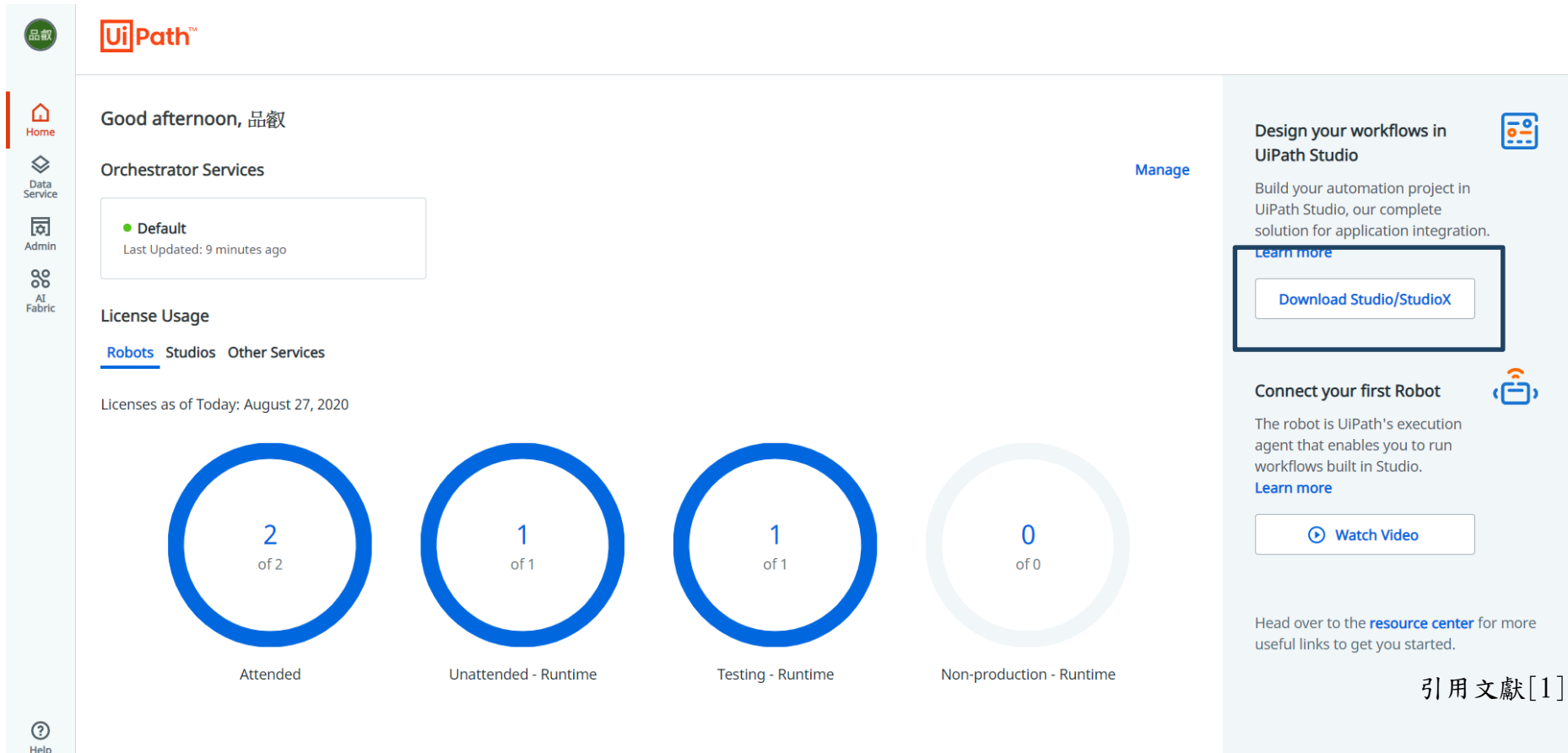
[Try Automation Hub](#)



The image shows a screenshot of the UiPath sign-up page. At the top is the UiPath logo. Below it is the heading "Sign up for UiPath Platform". There are four buttons for social login: "Sign up with Google", "Sign up with Microsoft", "Sign up with LinkedIn", and "Sign up with Email". A horizontal line with the word "or" in the center separates the social login buttons from the email login button. At the bottom of the form, there is a link that says "Already have an account? Login".

Install UiPath(3/3)

Download Studio/Studio X



The screenshot shows the UiPath console dashboard. On the left is a navigation sidebar with icons for Home, Data Service, Admin, and AI Fabric. The main content area displays a greeting, Orchestrator Services, and License Usage. The License Usage section shows four categories: Attended (2 of 2), Unattended - Runtime (1 of 1), Testing - Runtime (1 of 1), and Non-production - Runtime (0 of 0). On the right, there are two promotional cards: 'Design your workflows in UiPath Studio' with a 'Download Studio/StudioX' button highlighted in a red box, and 'Connect your first Robot' with a 'Watch Video' button. The bottom right corner contains the text '引用文獻[1]'.

品觀

UiPath™

Good afternoon, 品觀

Orchestrator Services

Default
Last Updated: 9 minutes ago

License Usage

Robots Studios Other Services

Licenses as of Today: August 27, 2020

Category	Count	Total
Attended	2	2
Unattended - Runtime	1	1
Testing - Runtime	1	1
Non-production - Runtime	0	0

Manage

Design your workflows in UiPath Studio

Build your automation project in UiPath Studio, our complete solution for application integration.

[Learn more](#)

Download Studio/StudioX

Connect your first Robot

The robot is UiPath's execution agent that enables you to run workflows built in Studio.

[Learn more](#)

Watch Video

Head over to the [resource center](#) for more useful links to get you started.

引用文獻[1]

UiPath

UiPath Studio

Open Close Start Templates Team Tools Settings Help

Open

- Open a Local Project**
Navigate and open an existing project
- Clone or Check Out**
Open from source control repositories like GIT, TFS or SVN

Open Recent

- BlankProcess9**
Blank Process
- BlankProcess8**
Blank Process
- Anchor Base Example**
Blank Process
- BlankProcess1**
Blank Process
- BlankProcess1**
Blank Process
- rpachallenge_shortestpath**
Blank Process
- RPA助教**
Blank Process
- BlankProcess1**
Blank Process
- 暑期PROJECT**
Blank Process
- BlankProcess**
Blank Process
- BlankProcess1**
Blank Process
- BlankProcess1**
Blank Process

New Project

- Process**
Start with a blank project to design a new automation process.
- Library**
Create reusable components and publish them together as a library. Libraries can be added as dependencies to automation processes.
- Template**
Create a template that you can use in other automation projects.

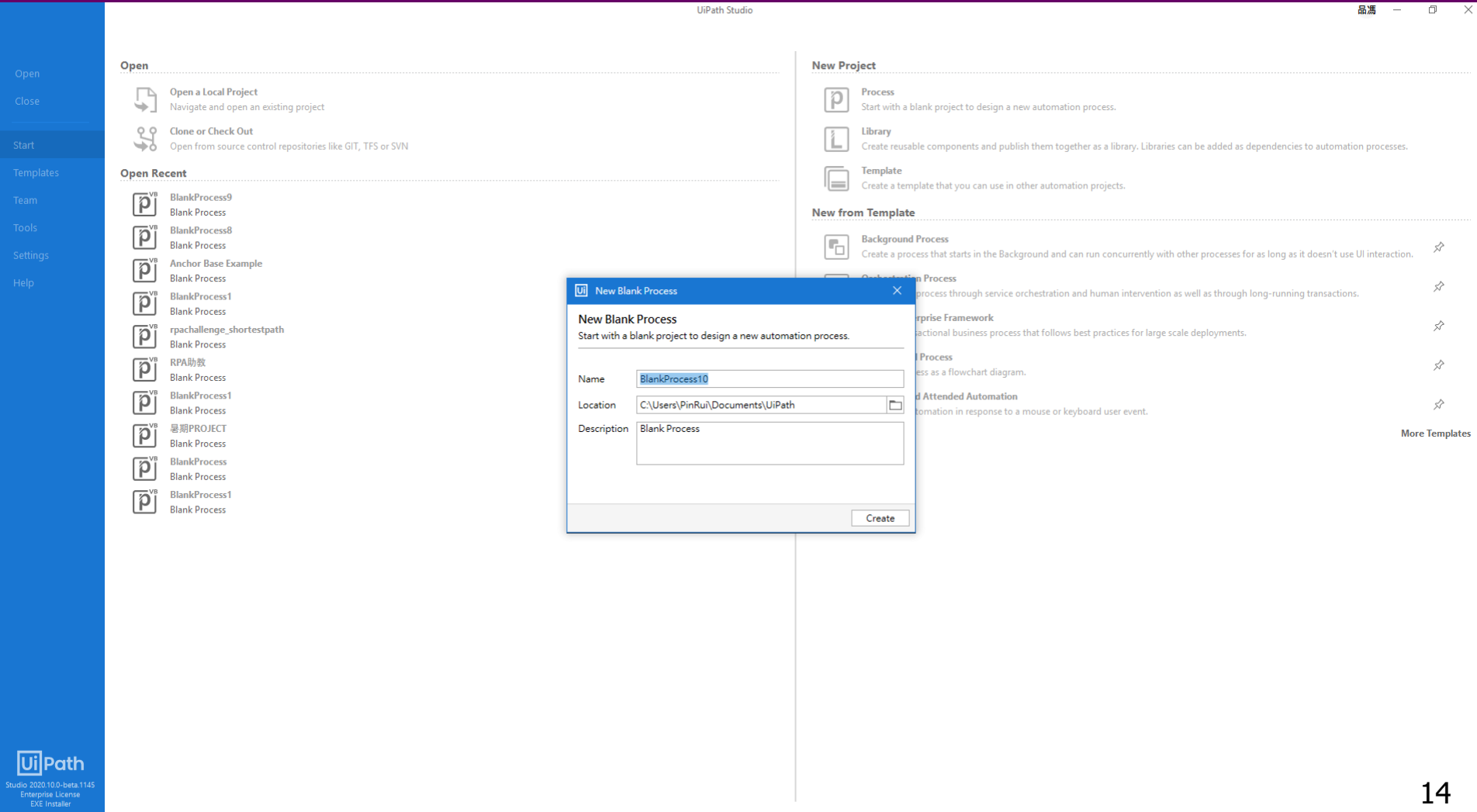
New from Template

- Background Process**
Create a process that starts in the Background and can run concurrently with other processes for as long as it doesn't use UI interaction.
- Orchestration Process**
Implement a process through service orchestration and human intervention as well as through long-running transactions.
- Robotic Enterprise Framework**
Create a transactional business process that follows best practices for large scale deployments.
- Transactional Process**
Model a process as a flowchart diagram.
- Trigger Based Attended Automation**
Trigger an automation in response to a mouse or keyboard user event.

More Templates

UiPath
Studio 2020.10.0-beta.1145
Enterprise License
EXE Installer

UiPath



The screenshot displays the UiPath Studio interface. On the left is a blue sidebar with navigation options: Open, Close, Start, Templates, Team, Tools, Settings, and Help. The main workspace is divided into several panels:

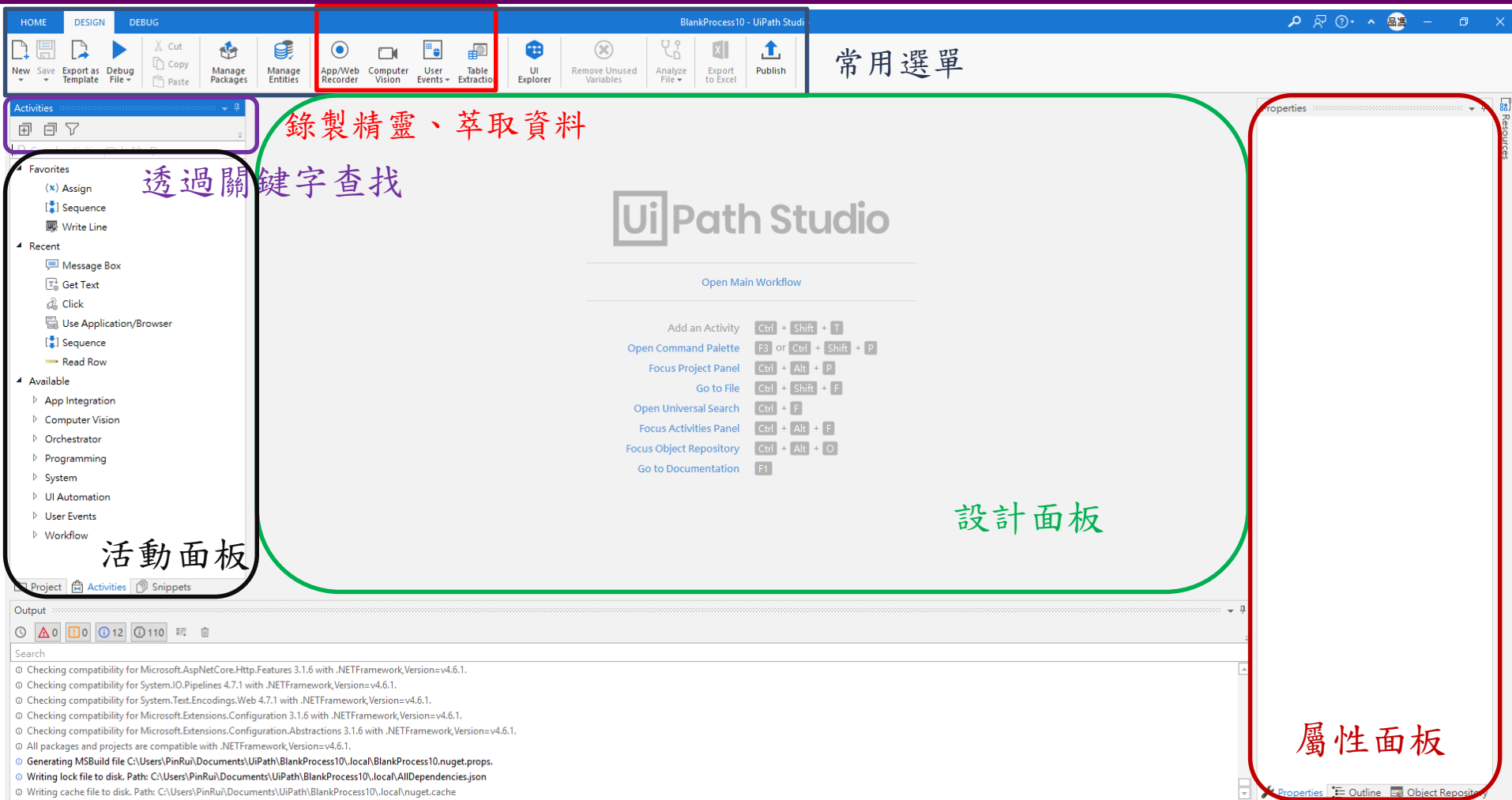
- Open:** Contains options for 'Open a Local Project' (Navigate and open an existing project) and 'Clone or Check Out' (Open from source control repositories like GIT, TFS or SVN).
- Open Recent:** Lists several recent projects, including 'BlankProcess9', 'Blank Process', 'BlankProcess8', 'Blank Process', 'Anchor Base Example', 'Blank Process', 'BlankProcess1', 'Blank Process', 'rpachallenge_shortestpath', 'Blank Process', 'RPA助教', 'Blank Process', 'BlankProcess1', 'Blank Process', 'Blank Process', '暑期PROJECT', 'Blank Process', 'BlankProcess', 'Blank Process', 'BlankProcess1', and 'Blank Process'.
- New Project:** Offers options to create a 'Process' (Start with a blank project to design a new automation process.), a 'Library' (Create reusable components and publish them together as a library. Libraries can be added as dependencies to automation processes.), or a 'Template' (Create a template that you can use in other automation projects.).
- New from Template:** Lists various templates such as 'Background Process', 'Orchestration Process', 'Enterprise Framework', 'Transactional Business Process', 'Flowchart Diagram', and 'Attended Automation'.

In the center, a 'New Blank Process' dialog box is open. It contains the following fields:

- Name:** BlankProcess10
- Location:** C:\Users\PinRui\Documents\UiPath
- Description:** Blank Process

A 'Create' button is located at the bottom right of the dialog box.

UiPath 介面



The screenshot shows the UiPath Studio interface with several key components highlighted and labeled:

- 常用選單 (Common Menu):** Located at the top right of the ribbon, it includes icons for New, Save, Export as Template, Debug File, Copy, Paste, Manage Packages, Manage Entities, App/Web Recorder, Computer Vision, User Events, Table Extractor, UI Explorer, Remove Unused Variables, Analyze File, Export to Excel, and Publish.
- 活動面板 (Activities Panel):** Located on the left side, it displays a list of activities categorized into Favorites, Recent, and Available. A red box highlights the Favorites section, with the text "透過關鍵字查找" (Search by keyword) written in purple. The text "活動面板" (Activities Panel) is written in black at the bottom left.
- 設計面板 (Design Panel):** The central workspace area, outlined in green. It features the "UiPath Studio" logo and a list of keyboard shortcuts for various actions like "Add an Activity", "Open Command Palette", "Focus Project Panel", "Go to File", "Open Universal Search", "Focus Activities Panel", "Focus Object Repository", and "Go to Documentation". The text "設計面板" (Design Panel) is written in green at the bottom right.
- 屬性面板 (Properties Panel):** Located on the right side, it is currently empty. The text "屬性面板" (Properties Panel) is written in red at the bottom right.
- 錄製精靈、萃取資料 (Recording Wizard, Data Extraction):** A red box highlights the "App/Web Recorder" and "Table Extractor" icons in the ribbon. The text "錄製精靈、萃取資料" (Recording Wizard, Data Extraction) is written in red above the design panel.

UiPath 介面

The screenshot displays the UiPath software interface. On the left, the 'Activities' panel is visible, containing a search bar and a list of activity categories. The search bar is highlighted with a red box and labeled '可直接打關鍵字搜尋'. The 'Available' section is also highlighted with a red box and labeled '或依照類別查找'. The 'Available' list includes: UI Automation, User Events, App Integration, System, Programming, Workflow, and Orchestrator. At the bottom of the interface, the 'Variables Arguments Imports' section is highlighted with a red box and labeled '變數、參數、匯入面板'. The main workspace on the right is currently empty, with a 'Drop activity here' prompt.

可直接打關鍵字搜尋

或依照類別查找

變數、參數、匯入面板

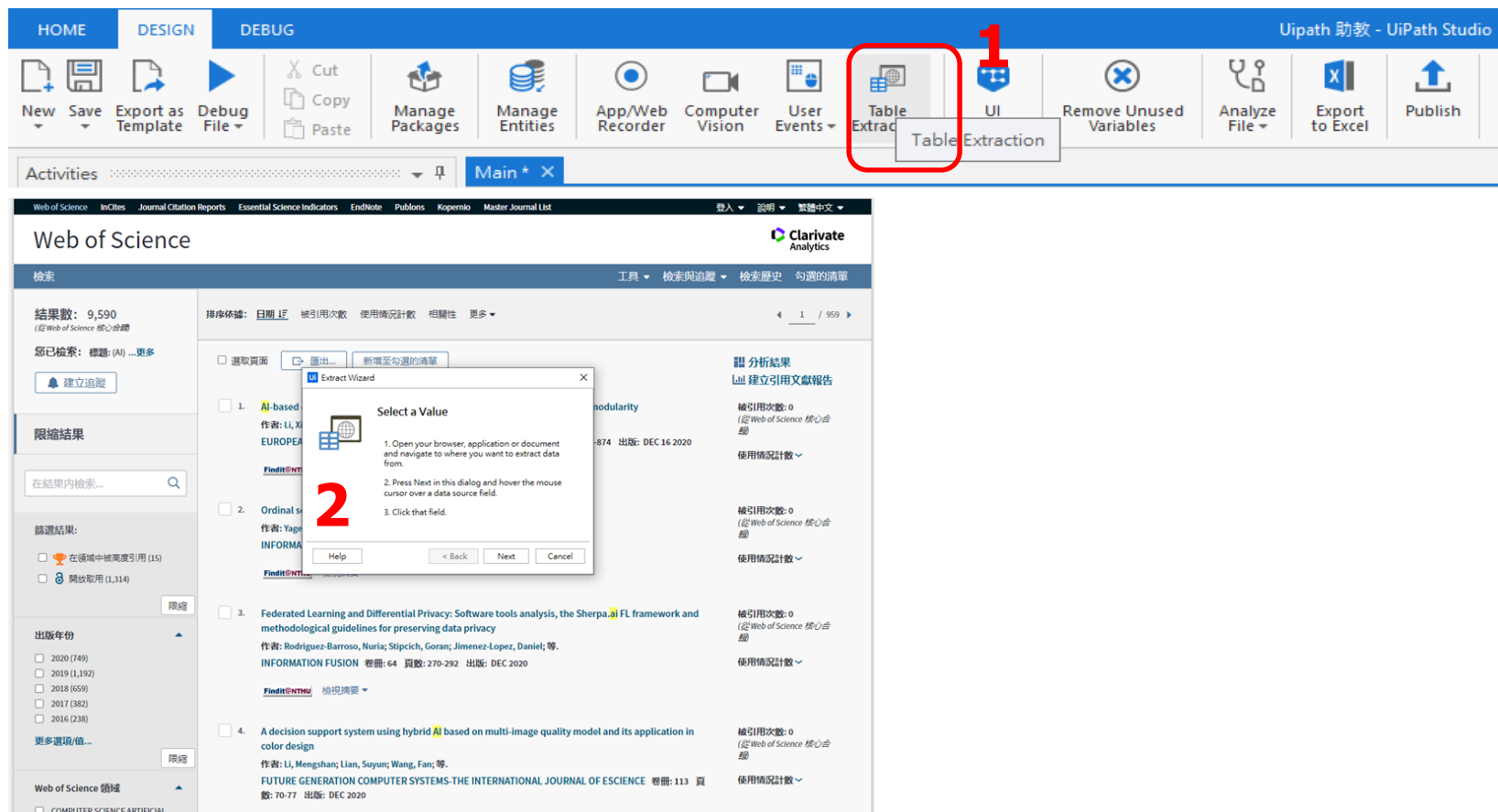
ACTIVITIES & 功能

Excel Activities

- Excel Application
Scope(<https://docs.uipath.com/activities/docs/excel-application-scope>)
- Write Range(<https://docs.uipath.com/activities/docs/excel-write-range>)
- Read Range(<https://docs.uipath.com/activities/docs/excel-read-range>)
- Read Column(<https://docs.uipath.com/activities/docs/excel-read-column>)
- Read Row(<https://docs.uipath.com/activities/docs/excel-read-row>)

Table Extraction_情境描述

UiPath Robot 與桌面端軟件和Web的交互使用 (EX: 網路爬蟲、購物網站價格追蹤等)



The screenshot displays the UiPath Studio interface. The top toolbar includes various activities, with 'Table Extraction' highlighted by a red box and a red arrow labeled '1'. Below the toolbar, the 'Activities' pane shows 'Main *'. The main workspace displays a 'Web of Science' search results page. A 'Select a Value' dialog box is open over the page, with a red arrow labeled '2' pointing to the 'Next' button. The dialog box contains instructions for using the 'Table Extraction' activity: '1. Open your browser, application or document and navigate to where you want to extract data from.', '2. Press Next in this dialog and hover the mouse cursor over a data source field.', and '3. Click that field.' The dialog box also includes 'Help', '< Back', 'Next', and 'Cancel' buttons.

功能_Table Extraction(1/6)

Selection Options

Hover over the element you want to indicate and click to select it.

If the element is not being detected/highlighted, try changing the detection framework (F4) or using region selection (F3).

Pause configuration for ◀ 5 ▶ seconds

Image selection mode

UI Framework: Default

雲端硬碟 - Google 雲端硬碟 X | AI - Google 学术搜索 X | Web of Science [v.5.35] - Web X +

Search.do?product=WOS&SID=C2UVMuSkiM4TgfePs9M&search_mode=GeneralSearch&prID=0e43f6c0-194f-4d89-ab39-261ef8b54043

Web of Science InCites Journal Citation Reports Essential Science Indicators EndNote Publons Kopernio Master Journal List 登入 說明 繁體中文

Web of Science Clarivate Analytics

檢索 工具 檢索與追蹤 檢索歷史 勾選的清單

結果數: 9,590 (從Web of Science 核心合輯)

您已檢索: 標題: (AI) ...更多

限縮結果

在結果內檢索...

篩選結果:

- 在領域中被高度引用 (15)
- 開放取用 (1,314)

排序依據: 日期 被引用次數 使用情況計數 相關性 更多

選取頁面

- AI-based competition of autonomous vehicle fleets with application to fleet modularity**
 作者: Li, Xingyu; Epureanu, Bogdan, I
 EUROPEAN JOURNAL OF OPERATIONAL RESEARCH 卷冊: 287 期: 3 頁數: 856-874 出版: DEC 16 2020
 檢視摘要
- Ordinal scale based uncertainty models for AI**
 作者: Yager, Ronald R.
 INFORMATION FUSION 卷冊: 64 頁數: 92-98 出版: DEC 2020
 檢視摘要

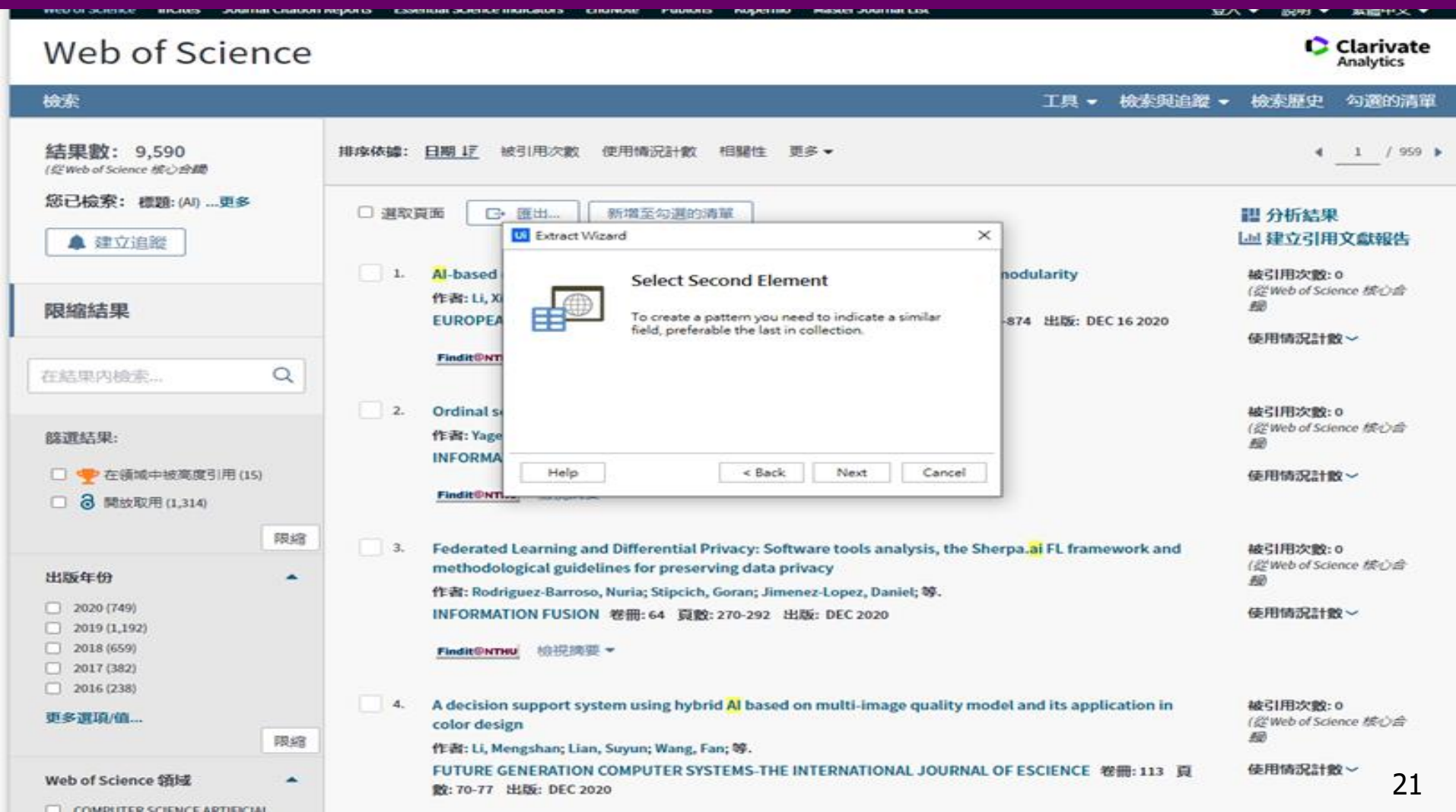
分析結果
建立引用文獻報告

被引用次數: 0 (從Web of Science 核心合輯)
使用情況計數

被引用次數: 0 (從Web of Science 核心合輯)
使用情況計數

1 / 959

功能_Table Extraction(2/6)



The screenshot displays the Web of Science search results page. The search results are sorted by date in descending order. A dialog box titled "Extract Wizard" is open, showing the "Select Second Element" step. The dialog box contains the following text: "To create a pattern you need to indicate a similar field, preferable the last in collection." Below the text are buttons for "Help", "< Back", "Next", and "Cancel".

Web of Science

Clarivate Analytics

檢索

工具 檢索與追蹤 檢索歷史 勾選的清單

結果數: 9,590
(從 Web of Science 核心合輯)

您已檢索: 標題: (AI) ...更多

建立追蹤

限縮結果

在結果內檢索...

篩選結果:

- 在領域中被高度引用 (15)
- 開放取用 (1,314)

出版年份

- 2020 (749)
- 2019 (1,192)
- 2018 (659)
- 2017 (382)
- 2016 (238)

更多選項/值...

Web of Science 領域

排序依據: 日期 上 被引用次數 使用情況計數 相關性 更多

1 / 959

選取頁面 匯出... 新增至勾選的清單

Extract Wizard

Select Second Element

To create a pattern you need to indicate a similar field, preferable the last in collection.

Help < Back Next Cancel

1. AI-based...
作者: Li, X...
EUROPEA...
Findit@NTU

2. Ordinal s...
作者: Yage...
INFORMA...
Findit@NTU

3. Federated Learning and Differential Privacy: Software tools analysis, the Sherpa.ai FL framework and methodological guidelines for preserving data privacy
作者: Rodriguez-Barroso, Nuria; Stipcich, Goran; Jimenez-Lopez, Daniel; 等.
INFORMATION FUSION 卷冊: 64 頁數: 270-292 出版: DEC 2020
Findit@NTU 檢視摘要

4. A decision support system using hybrid AI based on multi-image quality model and its application in color design
作者: Li, Mengshan; Lian, Suyun; Wang, Fan; 等.
FUTURE GENERATION COMPUTER SYSTEMS-THE INTERNATIONAL JOURNAL OF ESCIENCE 卷冊: 113 頁數: 70-77 出版: DEC 2020

分析結果
建立引用文獻報告

被引用次數: 0
(從 Web of Science 核心合輯)

使用情況計數

被引用次數: 0
(從 Web of Science 核心合輯)

使用情況計數

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(從 Web of Science 核心合輯)

使用情況計數

被引用次數: 0
(從 Web of Science 核心合輯)

使用情況計數

功能_Table Extraction(3/6)

Selection Options

Hover over the element you want to indicate and click to select it.

If the element is not being detected/highlighted, try changing the detection framework (F4) or using region selection (F3).

Pause configuration for 5 seconds F2

Image selection mode F3

UI Framework: Default F4

Confirm Cancel

雲端硬碟 - Google 雲端硬碟 X | AI - Google 学术搜索 X | Web of Science [v.5.35] - Web X +

Search.do?product=WOS&SID=C2UVMuSkiM4TgfePs9M&search_mode=GeneralSearch&prID=0e43f6c0-194f-4d89-ab39-261ef8b54043

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結果數: 9,590 (從 Web of Science 核心合輯)

您已檢索: 標題: (AI) ...更多

建立追蹤

限縮結果

在結果內檢索...

篩選結果:

- 在領域中被高度引用 (15)
- 開放取用 (1,314)

排序依據: 日期 被引用次數 使用情況計數 相關性 更多

1 / 959

選取頁面 匯出... 新增至勾選的清單

1. **AI-based competition of autonomous vehicle fleets with application to fleet modularity**
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EUROPEAN JOURNAL OF OPERATIONAL RESEARCH 卷冊: 287 期: 3 頁數: 856-874 出版: DEC 16 2020
FindIt@NTHU 檢視摘要

2. **Ordinal scale based uncertainty models for AI**
作者: Yager, Ronald R.
INFORMATION FUSION 卷冊: 64 頁數: 92-98 出版: DEC 2020
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分析結果
建立引用文獻報告

被引用次數: 0 (從 Web of Science 核心合輯)
使用情況計數

被引用次數: 0 (從 Web of Science 核心合輯)
使用情況計數

功能_Table Extraction(4/6)

工具 ▾ 檢索與追蹤 ▾ 檢索歷史 勾選的清單


排序依據: 日期 ▾ 被引用次數 使用情況計數 相關性 更多 ▾

◀ 1 / 959 ▶

選取頁面

1. **AI-based comp**
 作者: Li, Xingyu;
 EUROPEAN JOU
 Findit@NTHU 核
2. **Ordinal scale ba**
 作者: Yager, Ron
 INFORMATION I
 Findit@NTHU 核
3. **Federated Learning and Differential Privacy: Software tools analysis, the Sherpa.ai FL framework and methodological guidelines for preserving data privacy**
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 FUTURE GENERATION COMPUTER SYSTEMS-THE INTERNATIONAL JOURNAL OF ESCIENCE 卷冊: 113 頁
 數: 70-77 出版: DEC 2020

UI Extract Wizard [X]



Configure Columns

The identified fields are highlighted.

Extract Text
 Text Column Name

Extract URL
 URL Column Name

分析結果
 建立引用文獻報告

被引用次數: 0
 (從Web of Science 核心合
 輯)

使用情況計數 ▾

出版: DEC 16 2020

被引用次數: 0
 (從Web of Science 核心合
 輯)

使用情況計數 ▾

被引用次數: 0
 (從Web of Science 核心合
 輯)

使用情況計數 ▾

被引用次數: 0
 (從Web of Science 核心合
 輯)

使用情況計數 ▾

功能_Table Extraction(5/6)

Ui Extract Wizard

1

Preview Data

product=WOS&search_mode=GeneralSearch&qid=1&SID=C2UVMuSkiM4TgfePs9M&page=1&doc=1
product=WOS&search_mode=GeneralSearch&qid=1&SID=C2UVMuSkiM4TgfePs9M&page=1&doc=2
product=WOS&search_mode=GeneralSearch&qid=1&SID=C2UVMuSkiM4TgfePs9M&page=1&doc=3
product=WOS&search_mode=GeneralSearch&qid=1&SID=C2UVMuSkiM4TgfePs9M&page=1&doc=4
product=WOS&search_mode=GeneralSearch&qid=1&SID=C2UVMuSkiM4TgfePs9M&page=1&doc=5
product=WOS&search_mode=GeneralSearch&qid=1&SID=C2UVMuSkiM4TgfePs9M&page=1&doc=6
product=WOS&search_mode=GeneralSearch&qid=1&SID=C2UVMuSkiM4TgfePs9M&page=1&doc=7
product=WOS&search_mode=GeneralSearch&qid=1&SID=C2UVMuSkiM4TgfePs9M&page=1&doc=8
product=WOS&search_mode=GeneralSearch&qid=1&SID=C2UVMuSkiM4TgfePs9M&page=1&doc=9
product=WOS&search_mode=GeneralSearch&qid=1&SID=C2UVMuSkiM4TgfePs9M&page=1&doc=10

Edit Data Definition Maximum number of results (0 for all) 100

Extract Correlated Data

Help < Back Finish Cancel

Ui Indicate Next Link

2

Is data on multiple pages?

Identify the element that navigates to the next pages. It could be a 'Next' button or an arrow (not a page number).

Press Yes to indicate it.

Yes No

Selection Options

3

Hover over the element you want to indicate and click to select it.

If the element is not being detected/highlighted, try changing the detection framework (F4) or using region selection (F3).

Pause configuration for 5 seconds F2

Image selection mode F3

UI Framework: Default F4

Confirm Cancel

1 / 959

功能_Table Extraction(6/6)

UI Extract Wizard

Preview Data

product=WOS&search_mode=GeneralSearch&qid=1&SID=C2UVMuSkiM4TgfePs9M&page=1&doc=1
product=WOS&search_mode=GeneralSearch&qid=1&SID=C2UVMuSkiM4TgfePs9M&page=1&doc=2
product=WOS&search_mode=GeneralSearch&qid=1&SID=C2UVMuSkiM4TgfePs9M&page=1&doc=3
product=WOS&search_mode=GeneralSearch&qid=1&SID=C2UVMuSkiM4TgfePs9M&page=1&doc=4
product=WOS&search_mode=GeneralSearch&qid=1&SID=C2UVMuSkiM4TgfePs9M&page=1&doc=5
product=WOS&search_mode=GeneralSearch&qid=1&SID=C2UVMuSkiM4TgfePs9M&page=1&doc=6
product=WOS&search_mode=GeneralSearch&qid=1&SID=C2UVMuSkiM4TgfePs9M&page=1&doc=7
product=WOS&search_mode=GeneralSearch&qid=1&SID=C2UVMuSkiM4TgfePs9M&page=1&doc=8
product=WOS&search_mode=GeneralSearch&qid=1&SID=C2UVMuSkiM4TgfePs9M&page=1&doc=9
product=WOS&search_mode=GeneralSearch&qid=1&SID=C2UVMuSkiM4TgfePs9M&page=1&doc=10

Edit Data Definition Maximum number of results (0 for all) 100

Extract Correlated Data


Help < Back Finish Cancel

將此表存入datatable變數，並寫入Excel

"https://www.momoshop.com.tw/search/searchShop.jsp?key="

Do

Extract Table Data



Extract to
DataTable

Ctrl + K: 快速建立變數

Excel Application Scope

"testprice.xlsx"

Do

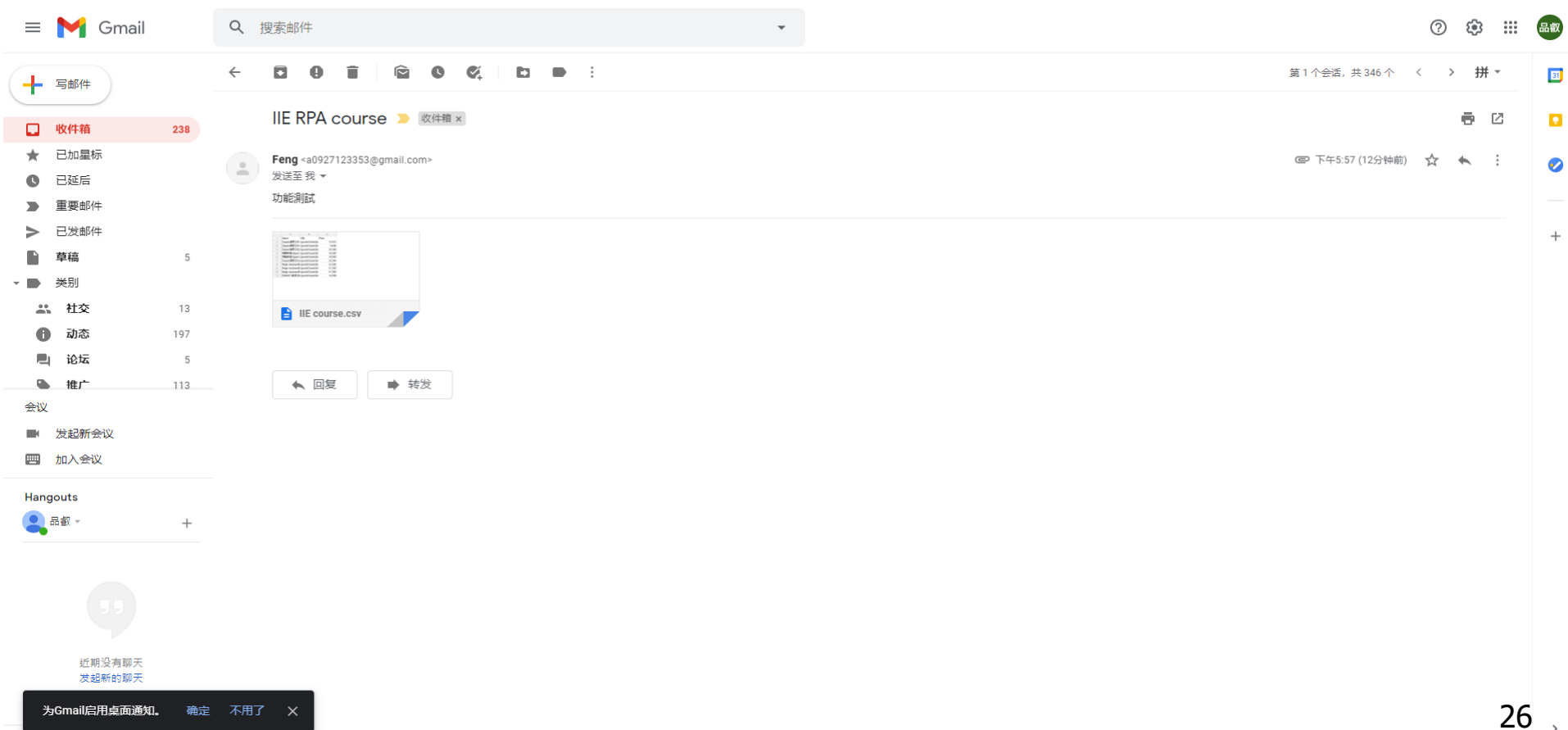
Write Range

"Sheet1" "A1"

DataTable

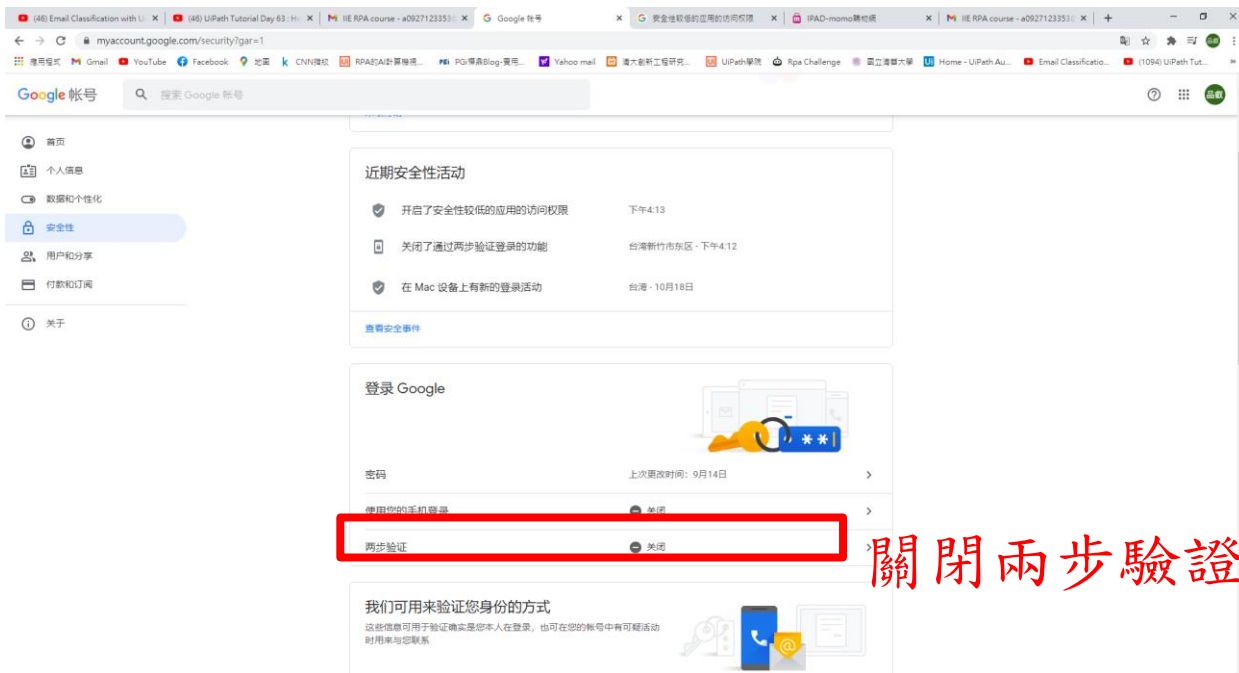
Activities_Send SMTP情境描述

如何將抓取的資料直接用Email發送?



The screenshot displays a Gmail interface. The left sidebar shows the '收件箱' (Inbox) with 238 items. The main content area shows an email from 'Feng <a0927123353@gmail.com>' with the subject 'IIE RPA course'. The email body contains the text '功能測試' and a CSV attachment named 'IIE course.csv'. The interface includes a search bar at the top, a navigation bar with icons, and a bottom notification bar that reads '为Gmail启用桌面通知。' (Enable desktop notifications for Gmail).

Activities_Send SMTP(1/3)



關閉兩步驗證

開啟安全性較低的應用的訪問權限

安全性較低的應用的訪問權限

您的帳號容易受到攻擊，因為您允許所用登錄技術安全性較低的應用和設備訪問您的帳號。為了確保您的帳號安全無虞，在未使用相關應用的情況下，Google 會自動關閉此設置。

! 启用

[停用訪問權限 \(推荐\)](#)



Activities_Send SMTP(2/3)

Send SMTP Mail Message

To: "a0927123353@gmail.com"

Subject: "IIE RPA course"

Body: "功能測試"

[Attach Files](#)

Misc

Private

Options

IsBodyHtml

SecureConnection Auto

Receiver

Bcc The hidden re ...

Cc The secondary ...

To "a0927123353" ...

Sender

From "a0927123353" ...

Name "Feng" ...

Properties

UiPath.Mail.SMTP.Activities.SendMail

Attachments

Attachments (Collection) ...

AttachmentsCollection Allows specify ...

Common

DisplayName Send SMTP Mail M...

TimeoutMS Specifies the a ...

Email

Body "功能測試" ...

Subject "IIE RPA cours" ...

Forward

MailMessage The message i ...

Host

Port ...

Server ...

Logon

Email "a0927123353" ...

Password pass ...

465
"smtp.gmail.com"

Activities_Send SMTP(3/3)

Send SMTP Mail Message

To: "a0927123353@gmail.com"

Subject: "IIE RPA course"

Body: "功能測試"

Attach Files

點此附上檔案

Files

檔案路徑

Direction	Type	Value
In	String	"IIE course.csv"

Create Argument

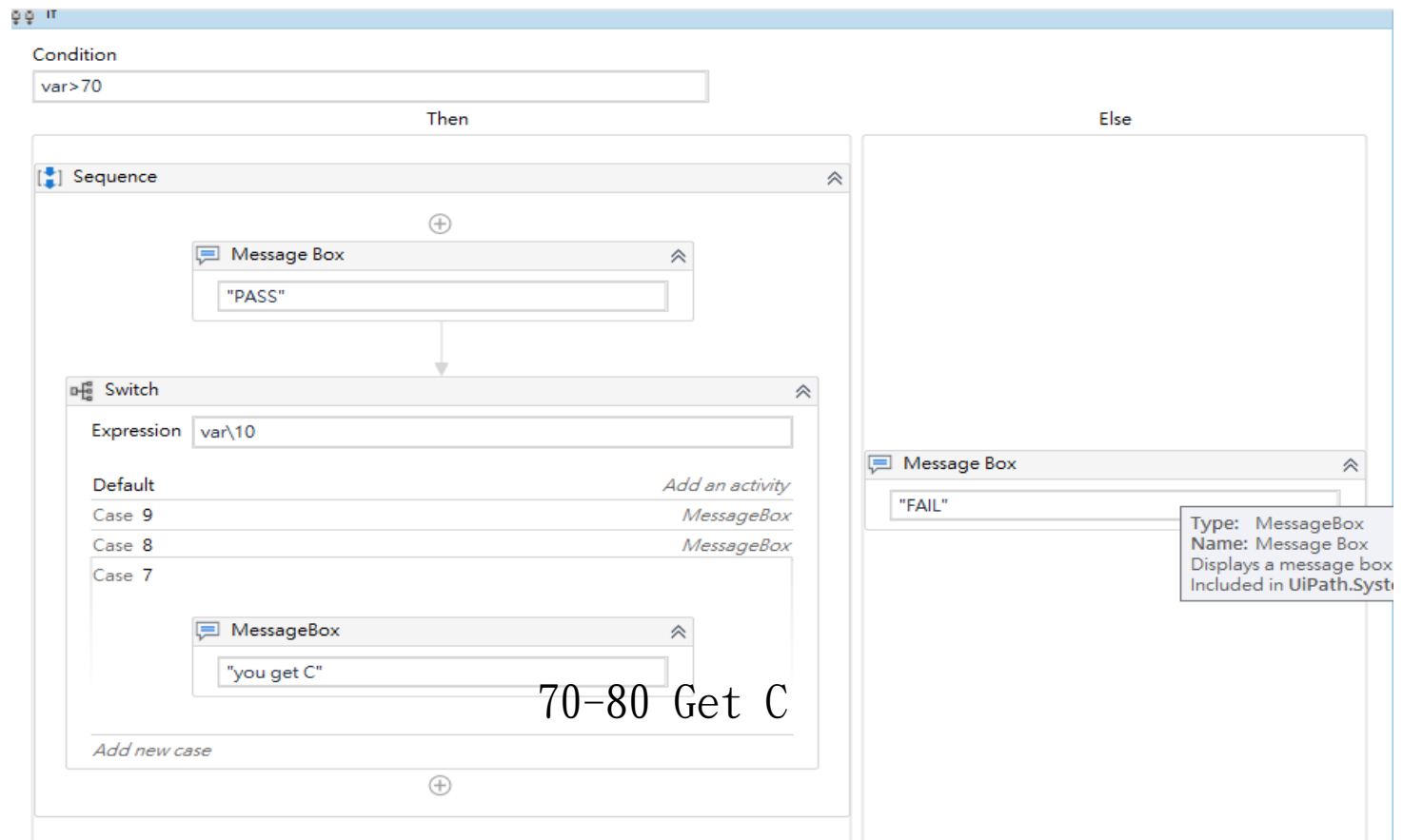
OK Cancel

UiPath裡的判斷、循環Activities

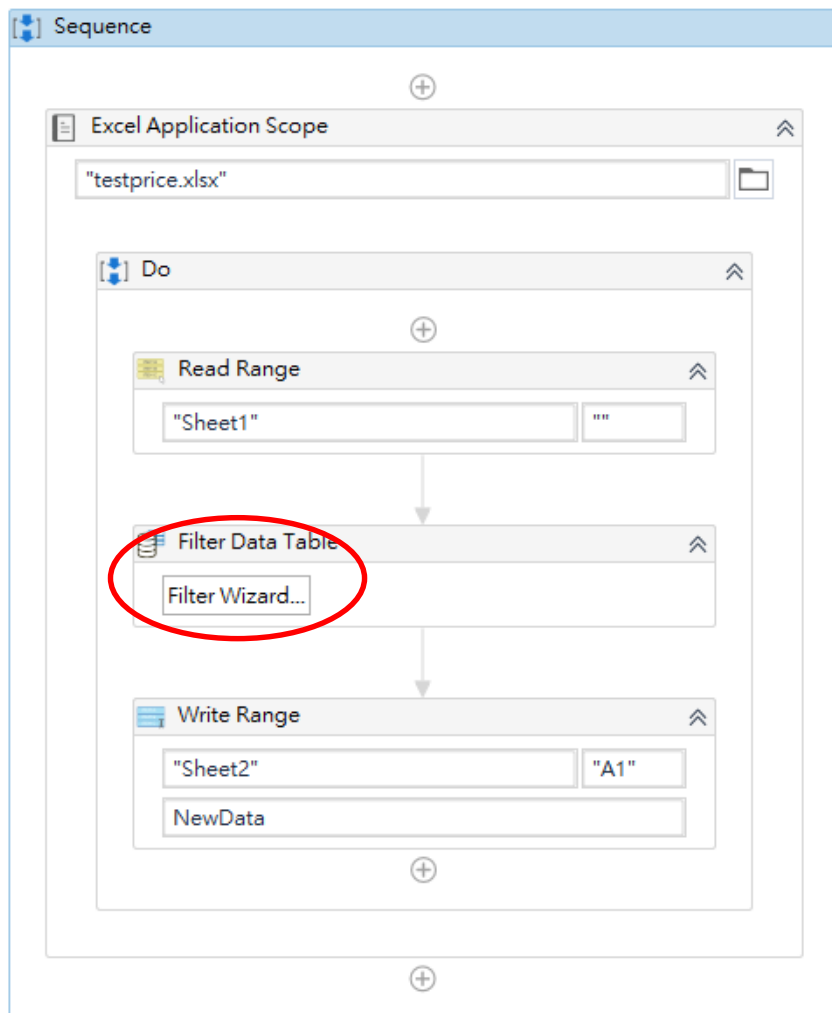
- If (<https://docs.uipath.com/studio/docs/the-if-activity>)
- Filter Data Table (<https://docs.uipath.com/studio/docs/the-switch-activity>)
- Switch (<https://docs.uipath.com/studio/docs/the-switch-activity>)
- For Each(<https://docs.uipath.com/studio/v2020.4/docs/the-for-each-activity>)
- Do while(<https://docs.uipath.com/studio/docs/the-do-while-activity>)
- Try Catch(<https://docs.uipath.com/activities/docs/try-catch>)

Activities_IF

期末成績大於70 輸出Pass 否則Fail



條件下取價_Filter Data Table



Sequence

Excel Application Scope

"testprice.xlsx"

Do

Read Range

"Sheet1"

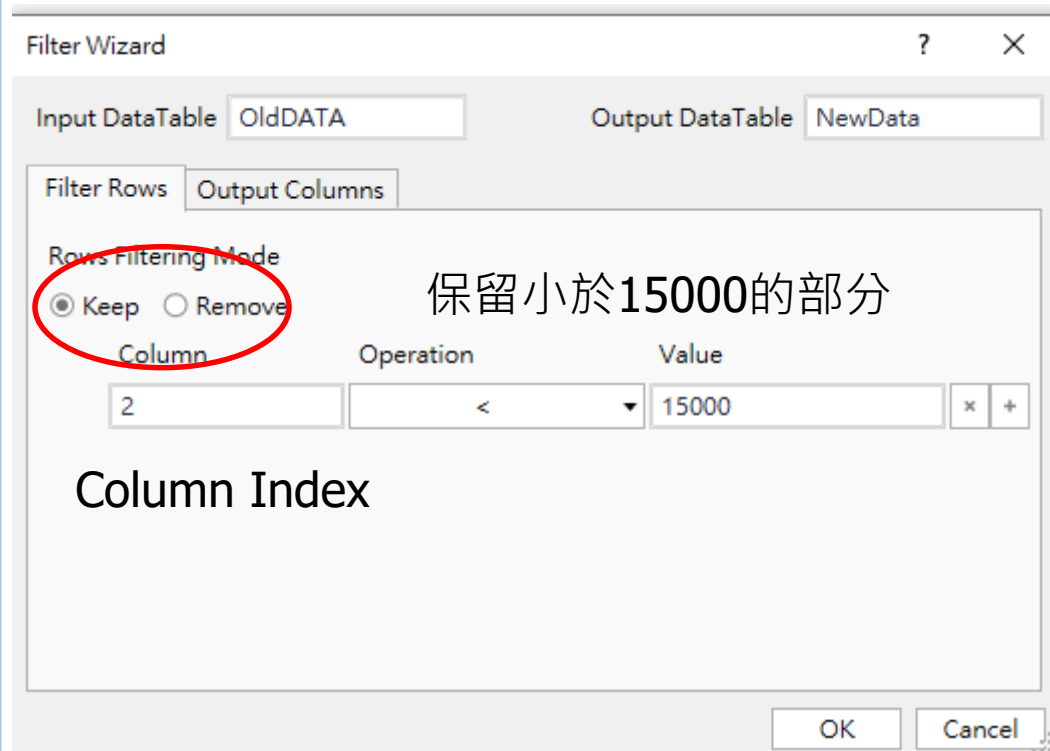
Filter Data Table

Filter Wizard...

Write Range

"Sheet2" "A1"

NewData



Filter Wizard

Input DataTable OldDATA Output DataTable NewData

Filter Rows Output Columns

Rows Filtering Mode

Keep Remove

保留小於15000的部分

Column	Operation	Value
2	<	15000

Column Index

OK Cancel

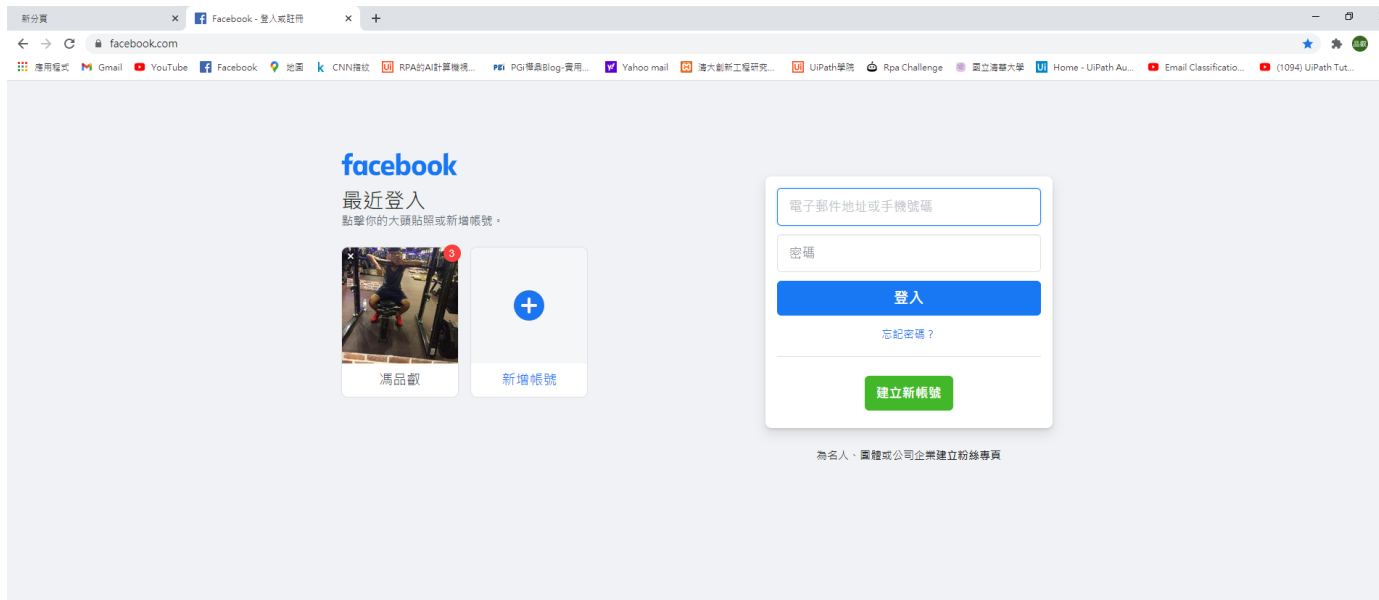
Result

	A	B	C
1	【Apple 蘋/goods/Goc		12126
2	【Apple 蘋/goods/Goc		12510
3	預購賣場 /goods/Goc		10500
4	預購賣場 /goods/Goc		13500
5	預購賣場 /goods/Goc		13500
6	預購賣場 /goods/Goc		10500
7	【Apple 蘋/goods/Goc		12126
8	三折防摔/goods/Goc		12290
9	【Apple 蘋/goods/Goc		8900
10	三折防摔/goods/Goc		12290
11	【Apple 蘋/goods/Goc		12126
12	【Apple 蘋/goods/Goc		12510
13	預購賣場 /goods/Goc		10500
14	預購賣場 /goods/Goc		13500
15	預購賣場 /goods/Goc		13500
16	預購賣場 /goods/Goc		10500
17	【Apple 蘋/goods/Goc		12126
18	三折防摔/goods/Goc		12290
19	【Apple 蘋/goods/Goc		8900
20	三折防摔/goods/Goc		12290
21	【Apple 蘋/goods/Goc		12126

實作練習 & HOMEWORK

Activities實作練習_問題描述

是否可以利用UIPATH完成自動輸入帳號密碼之機器流程自動化?

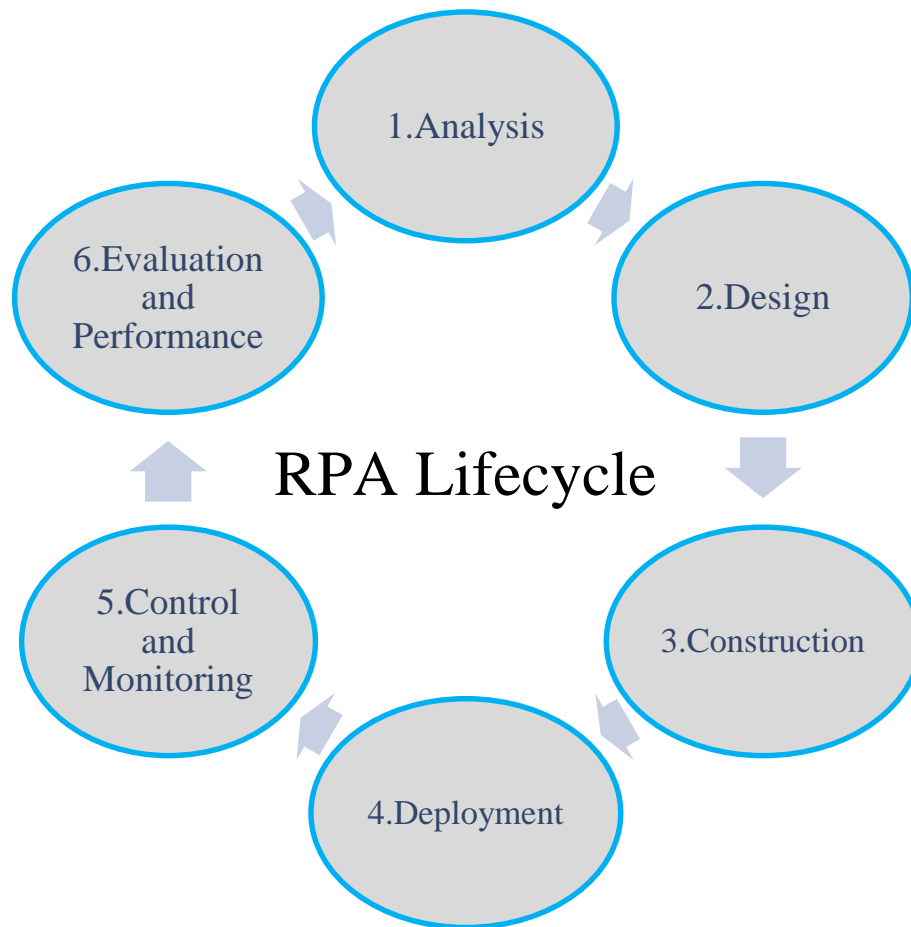


中文(台灣) English (US) Tiếng Việt Bahasa Indonesia العربية/الشرق الأوسط 日本語 Español Português (Brasil) Français (France) Deutsch Italiano +

註冊 登入 Messenger Facebook Lite Watch 用戶 粉絲專頁 專頁類別 地理 遊戲 地點 Marketplace Facebook Pay 社群 職缺 Oculus Portal Instagram 本地 籌款活動 服務 投資資訊中心 關於 刊登廣告 建立粉絲專頁 開發人員 工作機會 隱私政策 Cookie Ad Choices 使用條款 使用說明

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RPA Lifecycle



Step1 考慮應用在輸入帳號密碼是否合適

Step2 探討輸入帳號密碼的流程配置

Step3 建構輸入帳號密碼流程構成要素

Step4 使用UiPath robot一個環境執行工作

Step5 控制和監視每個機器人的性能。

Step6 評估機器人的表現

Activities實作練習(1/6)

Use Application/Browser

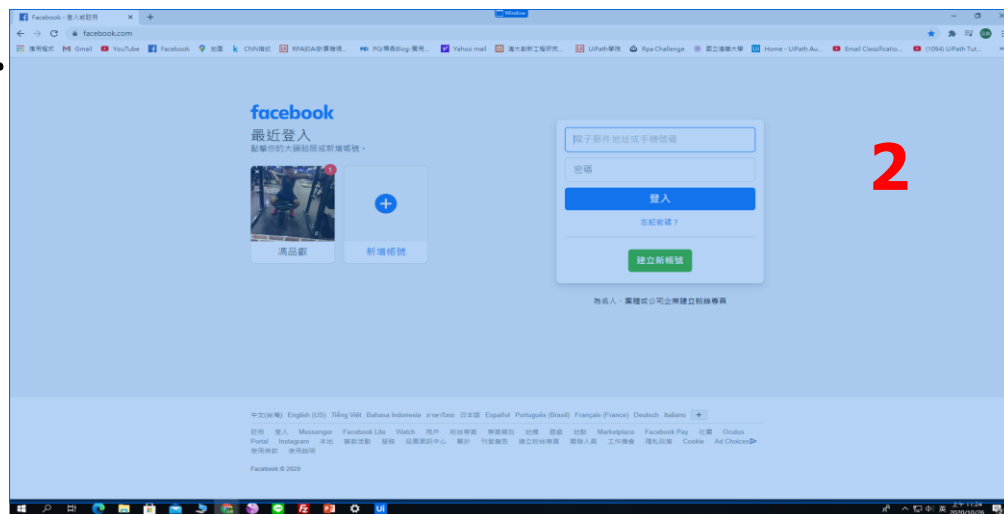
Use Application/Browser

Indicate application to automate (!)
Or drag a screen from Object Repository

Do

Drop Activity Here

1



facebook.com

facebook

最近登入

電子郵件地址或手機號碼

密碼


登入

忘記密碼?

建立新帳號

2

Use Browser Chrome: Facebook - 登入或註冊



Browser URL

"https://www.facebook.com/"

Do

Drop Activity Here

3

Activities 實作練習 (2/6)

Type Into

Type Into

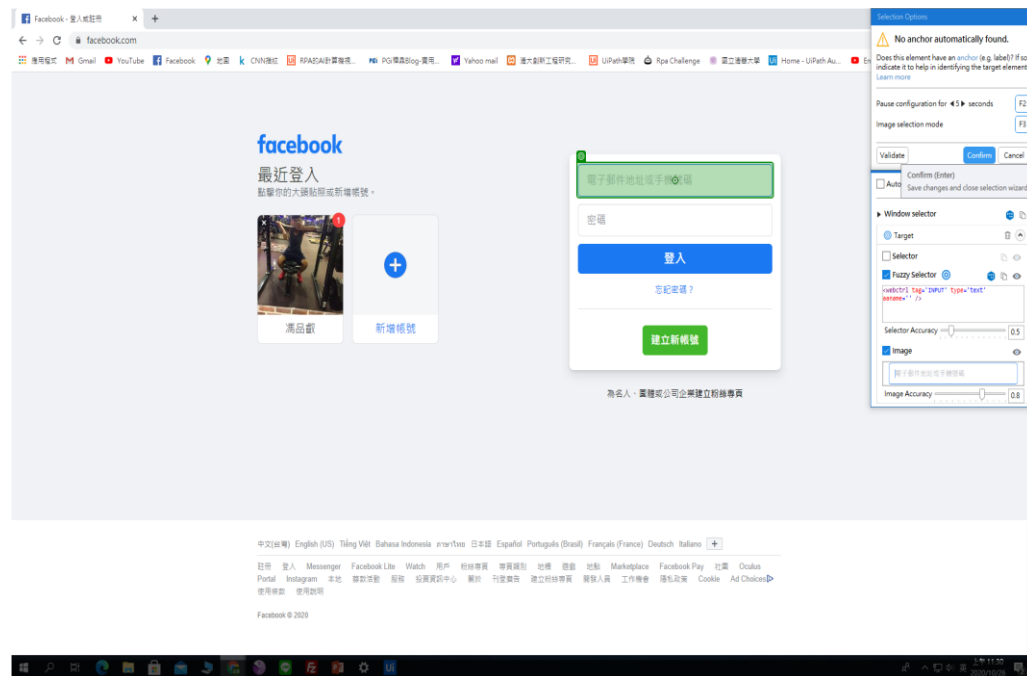
Indicate target on screen (I)
Or drag an element from Object Repository

Type this Standard Secure

Text must be quoted 🔍

Empty field before typing Click before typing

Single line [End, Shift+ ▼ Single ▼



Facebook - 登入或註冊

facebook.com

facebook

最近登入
點擊你的大頭貼照或新增帳號。

憑電子郵件地址或手機號碼

密碼

登入

忘記密碼?

建立新帳號

高名人 · 臺灣航空公司企業建立粉絲專頁

中文(台灣) English (US) Tiếng Việt Bahasa Indonesia မြန်မာဘာသာ 日本語 Español Português (Brasil) Français (France) Deutsch Italiano

註冊 登入 Messenger Facebook Live Watch 用戶 粉絲專頁 專頁類別 地圖 遊戲 地點 Marketplace Facebook Pay 比賽 Oculus Portal Instagram 本地 購物活動 服務 投資資訊中心 業務 刊登廣告 建立粉絲專頁 聯絡人員 工作機會 隱私政策 Cookie Ad Choices

Facebook © 2020

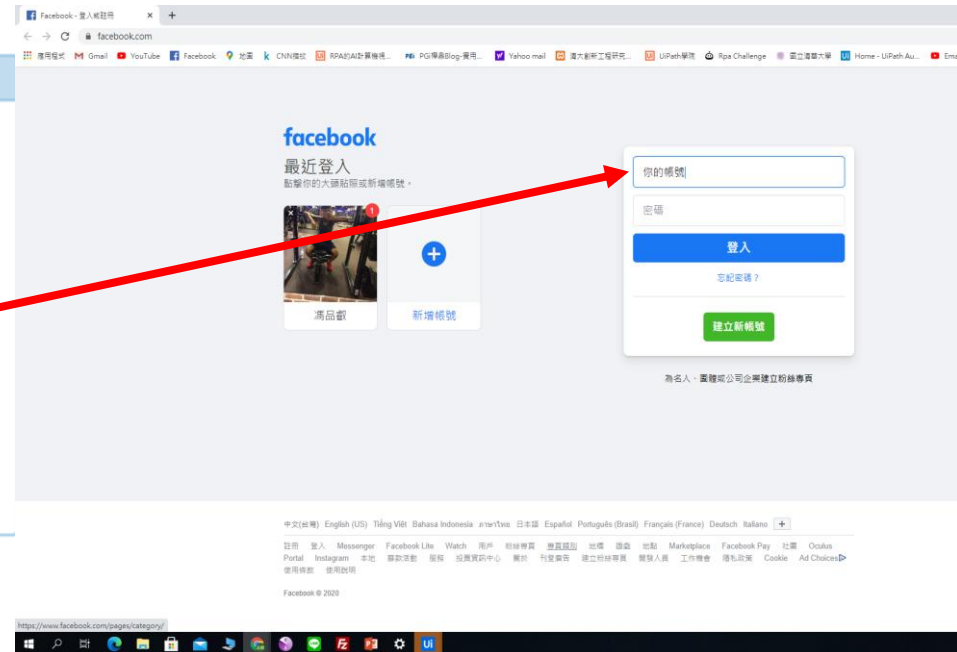
Activities 實作練習 (3/6)

Type Into 'INPUT email'

除了郵件地址或手機號碼

Type this Standard Secure

Empty field before typing Click before typing



facebook

最近登入
點擊你的大頭貼照或新增帳號。

你的帳號

密碼

登入

忘記密碼?

建立新帳號

為名人、團體或公司企業建立粉絲專頁

中文(台灣) English (US) Tiếng Việt Bahasa Indonesia العربية Français Español Português (Brasil) Français (France) Deutsch Italiano

註冊 登入 Messenger Facebook Live Watch 用戶 粉絲專頁 直播 遊戲 地點 Marketplace Facebook Pay 社群 Oculus Portal Instagram 本地 購物活動 服務 消費資訊中心 購物 行業資訊 建立粉絲專頁 聯繫人員 工作機會 隱私政策 Cookie Ad Choices

Facebook © 2019

https://www.facebook.com/signin/category/

Activities 實作練習 (4/6)

Type Into

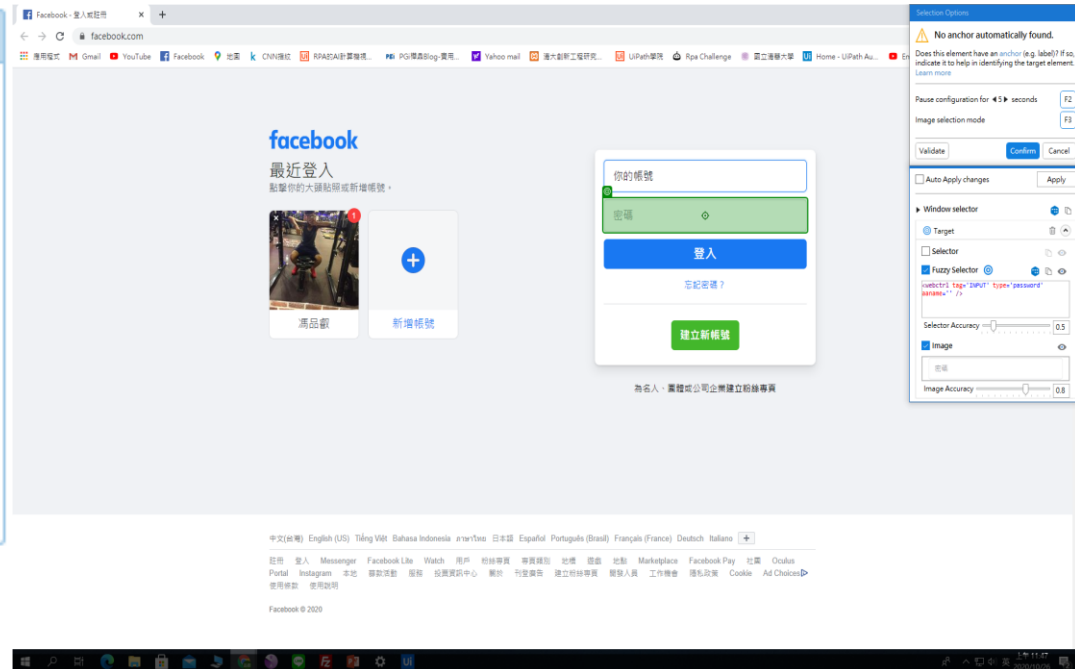
Type Into

Indicate target on screen (I)
Or drag an element from Object Repository

Type this Standard Secure

Text must be quoted

Empty field before typing



The screenshot shows a browser window with the Facebook login page. A 'Type Into' test tool is active, with a green box highlighting the password input field. The tool's configuration panel on the right includes:

- Window selector:** Target
- Selector:** Selector
- Fuzzy Selector:** Fuzzy Selector (checked)
- Image:** Image (checked)
- Selector Accuracy:** 0.5
- Image Accuracy:** 0.8

Below the browser window, the Windows taskbar is visible, showing the time as 11:11 AM on 2/20/2018.

Activities 實作練習 (5/6)

Type Into 'INPUT pass'

你的帳號

密碼

Type this

Standard Secure

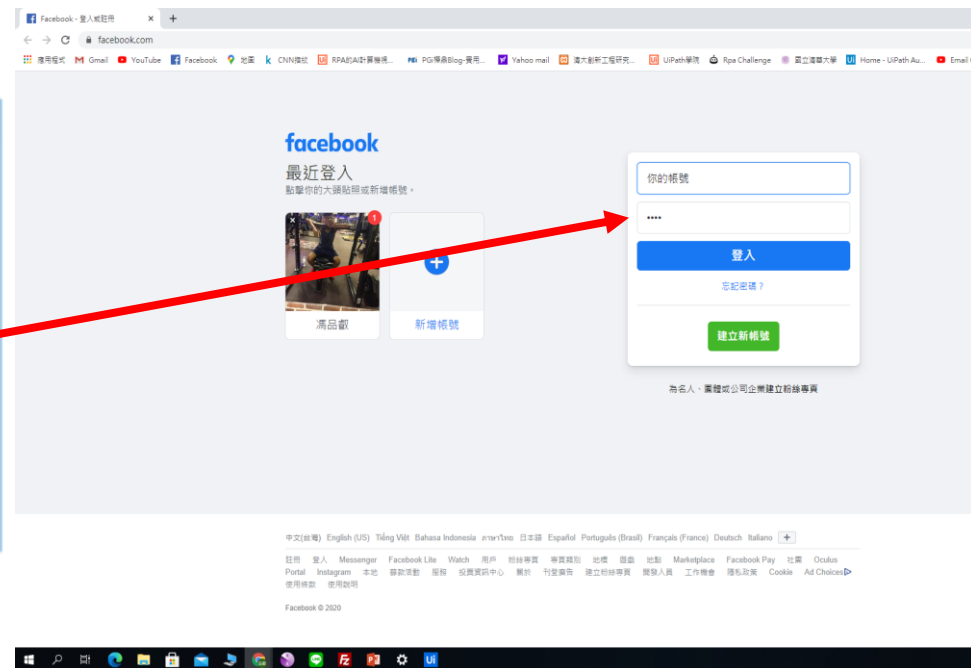
"你的密碼"

Empty field before typing

Click before typing

Single line [End, Shift+]

None



Facebook - 登入或註冊

facebook.com

最近登入

點選你的大頭貼照或新增帳號。

高品質 新增帳號

你的帳號

.....

登入

忘記密碼?

建立新帳號

為名人、團體或公司企業建立粉絲專頁

中文(台灣) English (US) Tiếng Việt Bahasa Indonesia العربية Japanese Español Português (Brasil) Français (France) Deutsch Italiano

註冊 登入 Messenger Facebook Lite Watch 用戶 粉絲專頁 商業類別 地點 遊戲 社群 Marketplace Facebook Pay 社群 Oculus Portal Instagram 本地 移動活動 服務 投資資訊中心 新聞 刊登廣告 建立粉絲專頁 開發人員 工作機會 隱私政策 Cookie Ad Choices

Facebook © 2020

Activities實作練習 (6/6)

Click

Click
!

Indicate target on screen (!)

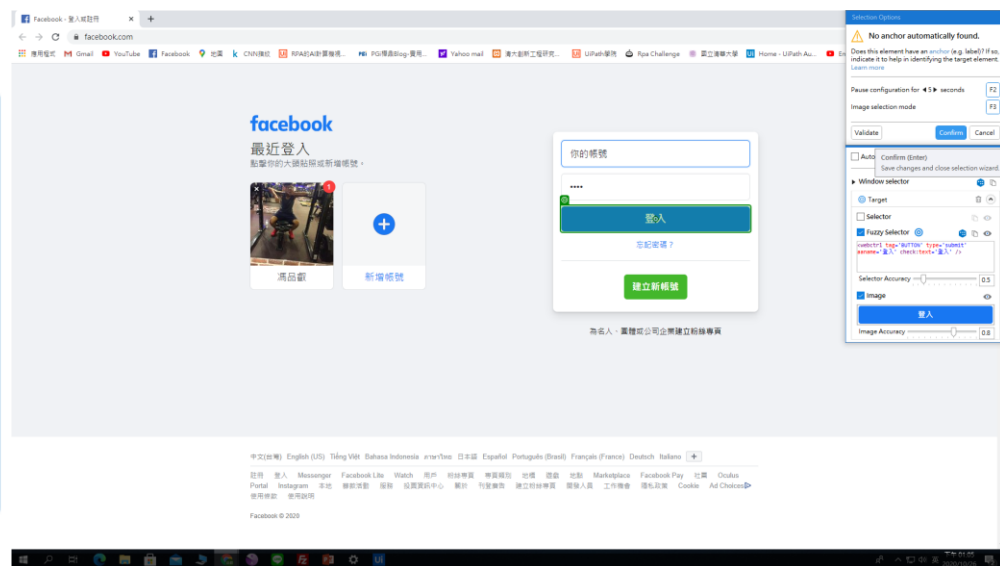
Or drag an element from Object Repository

Click type

Single
▼

Mouse button

Left
▼



Homework

- Please use the UiPath Studio at least 6 activities to construction your process, and must use “send SMTP activities”.(You can send SMTP to anyone including yourself)
- You should upload UiPath file.

Reference

[1] UiPath

<https://www.uipath.com/>

[2] UiPath Tutorial For Beginners | RPA Tutorial For Beginners | UiPath Training Online | Edureka

https://www.youtube.com/watch?v=kVtgA_PQ5R4

[3] PGI樺鼎商業資訊

<https://www.perform-global.com/about-pgi/>

[4] Robotic Automation Process - The next major revolution in terms of back office operations improvement

<https://doi.org/10.1515/picbe-2017-0072>

[5] 【UiPath課程】沒有程式背景，花2天上課的心得筆記(Day1)

<https://www.perform-global.com/uipath-course-note-part1/?fbclid=IwAR0Rz8D1Ukwd5WaA3LRtj1jf4TxPCeqHTIr0cWGsDOzqQVonEPAAv2KwOGg>

Reference

[6] UiPath Forum

<https://forum.uipath.com/>

[7] UiPath academy

<https://academy.uipath.com/search-filter/MQ%3D%3D?contenttype=learningpath&subtagId=7271>

[8] Learning Technologies

<https://www.youtube.com/c/LearningTechnologies>

[9] **【RPA結合DataRobot】** 企業如何跟上「機器人流程自動化」與「機器學習」兩大數位化浪潮？

<https://medium.com/@pgidata/rpa%E7%B5%90%E5%90%88datarobot-%E4%BC%81%E6%A5%AD%E5%A6%82%E4%BD%95%E8%B7%9F%E4%B8%8A-%E6%A9%9F%E5%99%A8%E4%BA%BA%E6%B5%81%E7%A8%8B%E8%87%AA%E5%8B%95%E5%8C%96-%E8%88%87-%E6%A9%9F%E5%99%A8%E5%AD%B8%E7%BF%92-%E5%85%A9%E5%A4%A7%E6%95%B8%E4%BD%8D%E5%8C%96%E6%B5%AA%E6%BD%AE-d1d5afabbe53>

Reference

[10] 如何用Task Capture一鍵錄製流程 + 自動生成文件

<https://www.perform-global.com/uiopath-task-capture/?fbclid=IwAR2YjifcgmWopSxkCWUANT5bwZL8nfjjCvGeAvE0B75I5hXWP7h9EijZNY8>

[11] UiPath ExpoHub

<https://www.youtube.com/channel/UCqxEVW50cODphM0YHvA34NjQ>

[12] UiPath Studio 開發入門 (邵銳照 著)