This assignment is meant to test your ability to create an automation that works with Excel spreadsheets, data table variables, UI automation, and data scraping!

Problem Statement

Build automation that scrapes data about book titles and prices from https://www.amazon.com/ for each topic in the Excel file, **Books.xlsx** (which is added as a downloadable resource to this assignment).

Desired Result and Output

The Excel spreadsheet **Books.xlsx** contains four trending book topics on Amazon. The goal of your automation is to successfully extract data about the books found on the first search result page for each of the four topics found in **Books.xlsx**. The topics are Java, Robotic Process Automation, Python, and Conversational AI. The extracted data should be stored in the same Excel file, but in a new sheet with the same name as the topic.

The data to be extracted for each book and stored back into **Books.xlsx** are (1) Book name or title, (2) paperback price, and (3) Kindle price.

How to Get Started

Follow these steps to get started working on your automation:

1. Create a new blank project in UiPath Studio and give it an appropriate name and description.
2. Download the Excel spreadsheet **Books.xlsx** and move it into the project folder of your newly created project.
3. Take a look at the Excel spreadsheet to familiarize yourself with its contents.

That's it; you are now ready to start building your automation.

Approach

For this assignment, your goal is to create an automation that performs the following steps:

1. Read data about topics from the **Books.xlsx** into a data table variable.
   Hint: Use the Read Range activity.
2. Open Google Chrome and navigate to the Amazon homepage.
   Hint: Use the Open Browser activity.
3. For each row in the data table, do the following:
   a. Set search category to Books.
      Hint: Use the Select Item activity.
   b. Enter topic in search field and press enter.
   c. Scrape book name or title, paperback price, and kindle price.
      Hint: Use the data scraping wizard.
   d. Write scraped data back into a new sheet in **Books.xlsx.**
      Hint: Sheet name should be CurrentRow("Topic").ToString.
   e. Navigate back to the Amazon homepage.
      Hint: Use the Navigate To activity.

Hint: Use the Navigate To activity.

Key Automation Activities

For this assignment, you are likely to use the following activities in UiPath Studio:

- Read range
- Open browser

- For each row in data table
- Select item
- Type into
- Data scraping/extract structured data
- Write range
- Navigate to

Additional Tasks

If you desire an additional challenge, you may attempt to include the following in your automation:

- At the end of your automation, ask the user to enter a book topic. Use this user input to search for this topic at Amazon, scrape the data, and store it in the same Excel spreadsheet with the sheet name being the topic entered by the user.

Tips and Tricks

- All the activities performed on the Amazon webpage are to be repeated once per row or stated more plainly, once per topic in **Books.xlsx**. This tells us that most of the activities in this project should be contained within *each row in the data table* activity, with the only thing changing being the topic.
- By the time you start extracting prices from Amazon, you may notice some are missing—and that's completely fine! Amazon can be a little tricky sometimes, as prices are not always shown. And when they are shown, they're not always presented in the same way. If you are struggling with getting the right price information, play around with the data scraping wizard and you may just find something that works well. If you have forgotten how to use the data scraping wizard, watch the videos on data scraping again.

Evaluation

- **Desired result and output**: Your automation should successfully create one new sheet in **Books.xlsx** for each book topic—four new sheets in total. These new sheets should contain all book titles or names, and as many paperback and kindle prices as possible.
- **Process and workflow design**: The activities in UiPath Studio are well structured and organized, in addition to activities having appropriate comments and annotations to improve readability.

The solution .XAML-file is available as a downloadable resource in the "Solution Walkthrough" lesson.