Overview

Testing is a crucial part of any solution and can be done from many different perspectives; the internal development team testing, business user acceptance testing (UAT), etc. There are also many different types of testing that can be conducted on a solution and user acceptance testing is usually done very manually. UAT is often included in most development lifecycles as a crucial step that acts as the 'go/no-go' decision maker. UAT is focused on ensuring that the input entered into the solution generates the expected output. If the solution does not generate the desired output, the solution needs to be amended and retested as the solution would generally not be published to production unless it passes all tests in UAT.

Robotic Process Automation (RPA) refers to the use of technology to mimic human tasks in the same way that a person would execute a process. This usually refers to, what we would call, 'front-end' or UI (User Interface) automation. RPA is often used to automate time-consuming and highly repetitive tasks to allow people the availed capacity to work on more intuitive tasks.

Let's take the web application that you worked on in Project 3 – before the solution can be deployed into production, it would need to go through UAT where a team of 'testers' would have a test dataset containing input data and desired output data. The testers would then insert each record of input data into each field of the web application and test that the desired output is generated. In this case, the desired output would be a new record being displayed on the web application once the item has been added. This would resort in a highly repetitive process which can and should (in this case) be automated using RPA.

Prerequisites

Before executing on this project, you will need to take the following into account and action the items appropriately:

- Ensure you have created a [UiPath Automation Cloud](#) account
- Ensure that you have downloaded UiPath Studio Community Edition to your computer
- Ensure that you are able to access the web application that you will be performing UI automation on

Requirements

Functional requirements refer to the functionality that a system must have and how the functions should be performed. Non-functional requirements refer to the aspects of a solution that have an impact on the quality attributes of a system (or platform). These non-functional requirements are deemed as supportive requirements to ensure that the functional requirements are implemented appropriately and according to good software practices.

Please note: *it will be important for you to keep the Overview Repository ReadME file updated throughout the semester as you will be evaluated on the content of the ReadME file as part of your Portfolio of Evidence (POE).*

Feature	Stories	Tasks (to be broken down further)	Priority
GitHub Administration	Create and Configure GitHub Repository	Create a repository named 'CMPG 323 Project 4 - <add your student number>'	1

		Create a ReadME.md file that will be used to describe your project and how stakeholders are to use the report that you have developed	1
	Project Progress	Ensure that the solution has been committed and pushed to source control throughout the project	1
		Ensure that the GitHub project has been updated iteratively throughout the project to demonstrate how progress was made	1
Project Setup	Create the Project	Clone your GitHub repository	2
		Install UiPath Studio	1
		Create a new UiPath process named 'Connected Office Web Application – User Acceptance Testing'	1
User Acceptance Testing	Read the input data	Read the data from Excel into a data table in UiPath	1
		Ensure that the data is readable and iterated over in UiPath	2
	UI Automation	For each record in the data table, navigate to the URL in the browser that allows data to be entered to create a new record	1
		Insert the fields from each record into the fields on the web application to create a new record on the web application	1
		Click the 'submit' button on the web application to create a new record on the web application once the data fields have been inserted	1
		Navigate to the URL where you can view the newly created record on the web application	2
	Record Results	If the item was created successfully, update the data table record to depict that the record passed testing. If the item was not created, update the data table to depict that the record failed testing	2
		Update the Excel spreadsheet with the testing results	2
Project Close-out	Deploy Solution	Publish the UiPath solution to the UiPath Orchestrator	3
	Project Documentation	Ensure that the ReadMe.md file in the GitHub repository explains how the user would use the report	1

		Create a reference list document that contains all sites visited and used to complete the project	1

Reading Materials

There are multiple aspects of the abovementioned scope that may be covered by

- Introduction to RPA and Automation: https://academy.uipath.com/courses/introduction-to-rpa-and-automation
- UI Automation with UiPath: https://docs.uipath.com/studio/docs/ui-automation
- Excel Automation with UiPath: https://www.uipath.com/learning/video-tutorials/excel-datatables-automation

Community Engagement

There are many different communities available for you to engage with if you are experiencing any challenges or if you would like to learn more about the technology and possibilities of UiPath:

- LinkedIn Groups
- Stack Overflow
- UiPath Community Forum
- UiPath Meetups
- YouTube UiPath Influencers

Certification

If this project has caught your interest and you are keen on obtaining a UiPath certification, take a look at the training and the UiPath RPA Associate Developer certification that you need to write and pass before becoming certified.

Submission Details

The scope of this project has been issued as an **individual** assignment. Please note that you will need to use GitHub for this project.

Please Note: Ensure that your repository has been shared with the users **autoruby, JacquiM** and **marijkec** so that your project can be marked**.**

Submission: Submit your CMPG 323 Project 4 by providing the relevant information through the Project 4 Submission Form.

Deadline: 17h00 on 3 November 2022 (please note there are no alternative or late submission dates – if you miss this deadline you will forfeit the opportunity)

What to submit:

1. Provide the URL to your GitHub Repository
2. Credentials to connect to your data source(s)
3. Provide proof that your process has been published to the orchestrator
4. Provide your reference list file

Marking Considerations

Please take note of the following considerations that will form part of the marking and moderation process:

- A rubric will be provided separately
- Failure to upload any of the requirements for submission will result in 0
- Failure to complete this as an individual assignment will result in 0
- Failure to use UiPath will result in 0.