Lab Guide

Creating Reports in IBM RPA

Nigel T. Crowther
ncrowther@uk.ibm.com

Hands-on Lab

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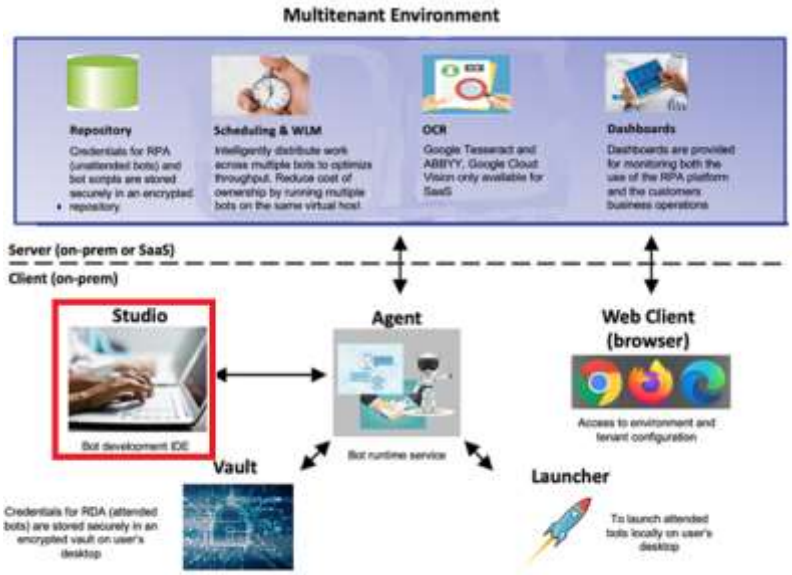
1 Introduction

In this lab we will implement a refund report for the Refund bot from Lab 1.

The context of this lab is shown in the highlighted area below.



1.1 What is Reporting?

Reports are created in RPA Studio. You create reports from data sources such as:

- Database
- Excel
- Parameters passed in from bot
- JSON

In this lab we will revisit the Refund Bot created in Lab 1. We will enhance the bot so that it creates a receipt in PDF format.

Note that this lab only touches the functionality of RPA reports. For detailed training see: https://learn.ibm.com/course/view.php?id=8695

1.2 Prerequisites

IBM RPA Studio V21.0.2 or later.

Scenario - Refund Receipt

We will create a refund receipt using the IBM RPA Reporting tool.

1.3 Scenario Description

Rachel is an RPA developer responsible for building receipts. She is required to build this receipt:

FocusCorp Travel Co
45 Minster Street
York
Yorkshire
+447863454454

REFUND RECEIPT

INVOICE #E4545499
2021-12-29 09:25:23

TO:
Jim Davies
15 Agent Street

Dear Jim Davies

Your refund has been processed and should be in your bank account within the next working day. Thank you for your custom.

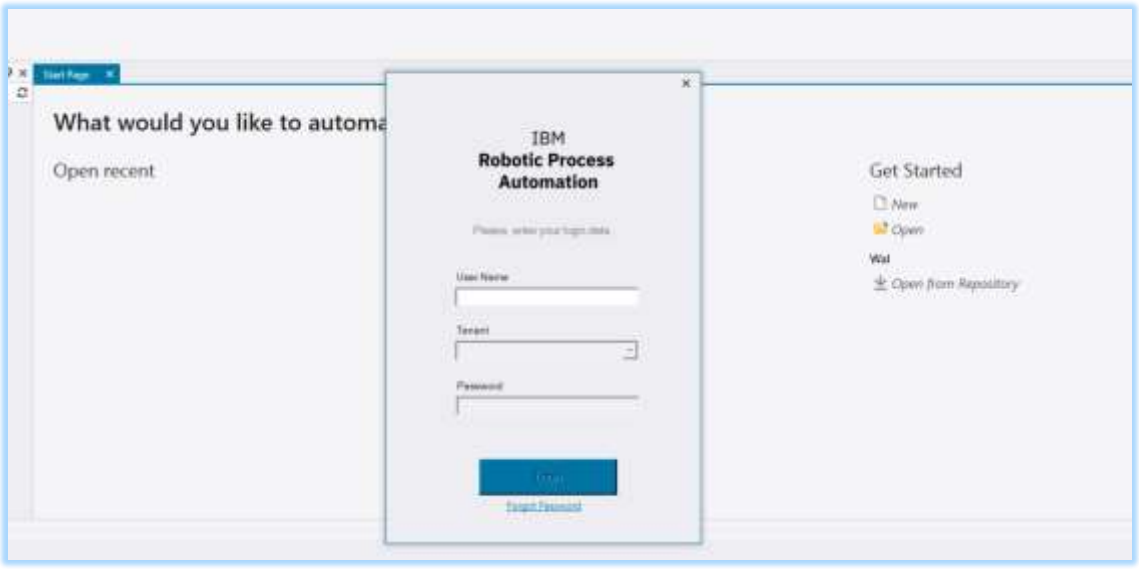
Ticket	Destination	Payment	Cancellation Reason
E4545499	Bath	£45.5	Covid
		TOTAL REFUND	**£45.5**

1.3.1 ***Start RPA Studio***

On your desktop find the IBM RPA Studio icon and launch it.

1.3.2 Log In

Login to RPA Studio with your credentials. If you are using the SkyTap, the credentials are:
User: admin@ibmdba.com
Password: *passw0rd*

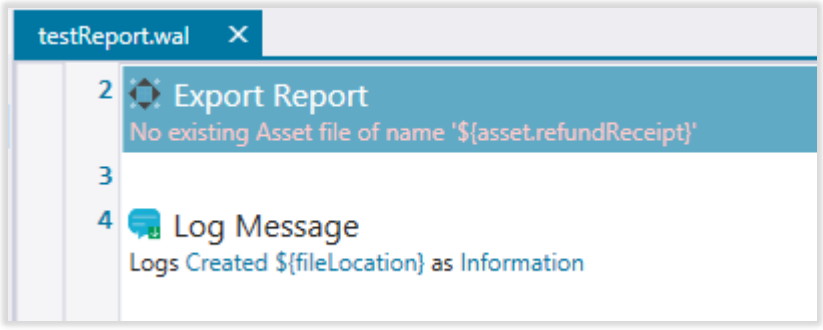


1.3.3 Open the Test Script

Within RPA Studio, open *testReport*:

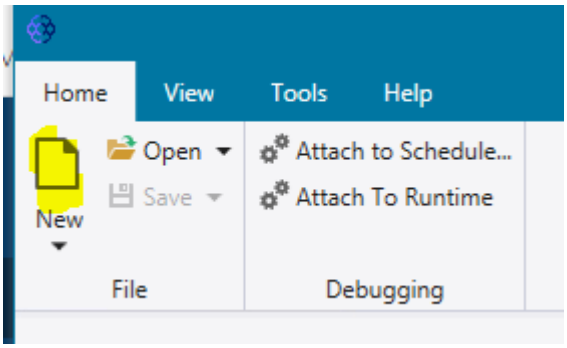
`[bot_reporting_lab]\artefacts\testReport.wal`

You should see the following. **Note:** the error is expected:

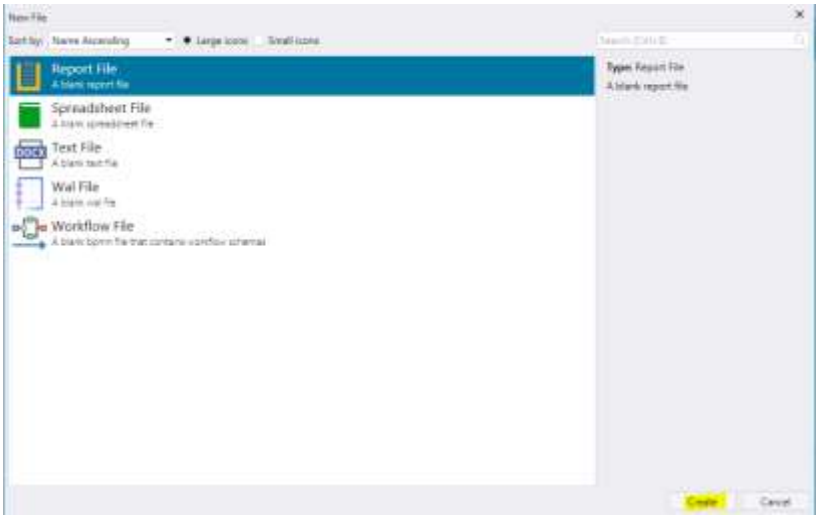


This script exports a report which we will create in the next step.

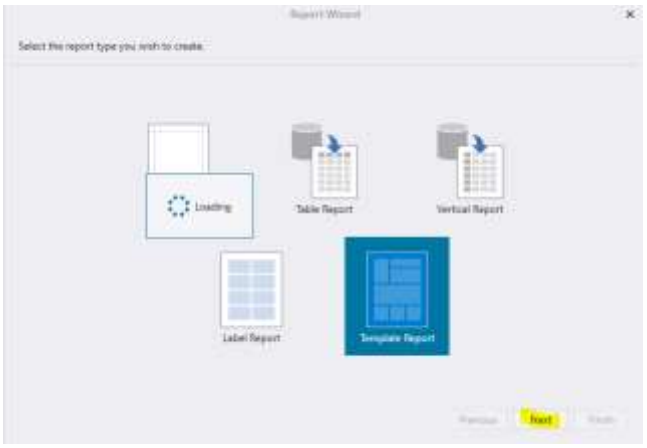
Within the *home* screen of RPA studio, select the *New* icon.
Tip: *Select the upper part of the icon within the blank page.*
See below:



Select *Report File* and press *Create*:



Now select *Template Report* and press *Next*



Select *Invoice 3* and press *Finish*

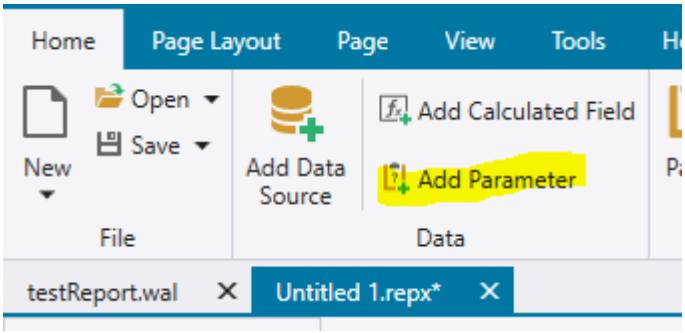
You should see the following:

1.3.4 Customize the report

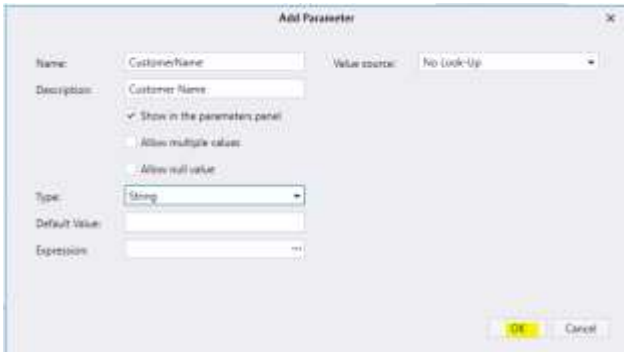
Modify the report so that it looks like this:

1.3.5 Create Parameters

Now create parameters so the report can be regenerated for each customer.
Within the *Home* tab, click *Add Parameter*:



Add parameter *CustomerName*:



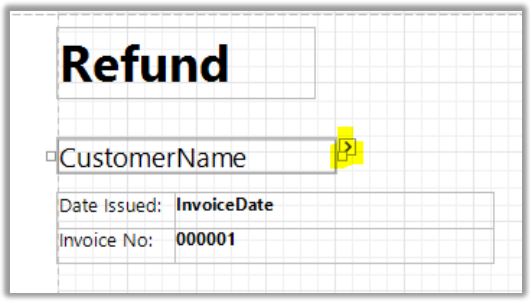
Repeat the above step to add the following parameters:

- InvoiceNumber
- Destination
- Amount
- RefundReason
- CustomerAddress

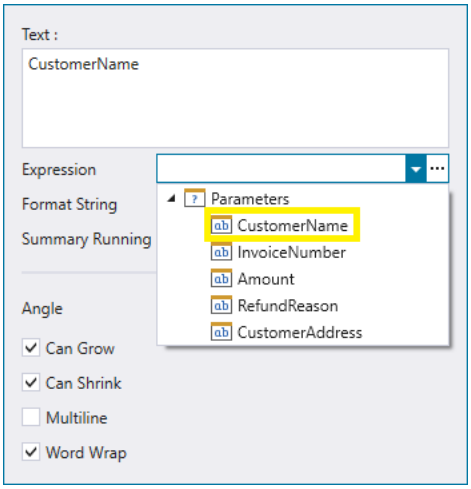
Tip: The exact spelling and case are important!

1.3.6 Add Parameters to Report

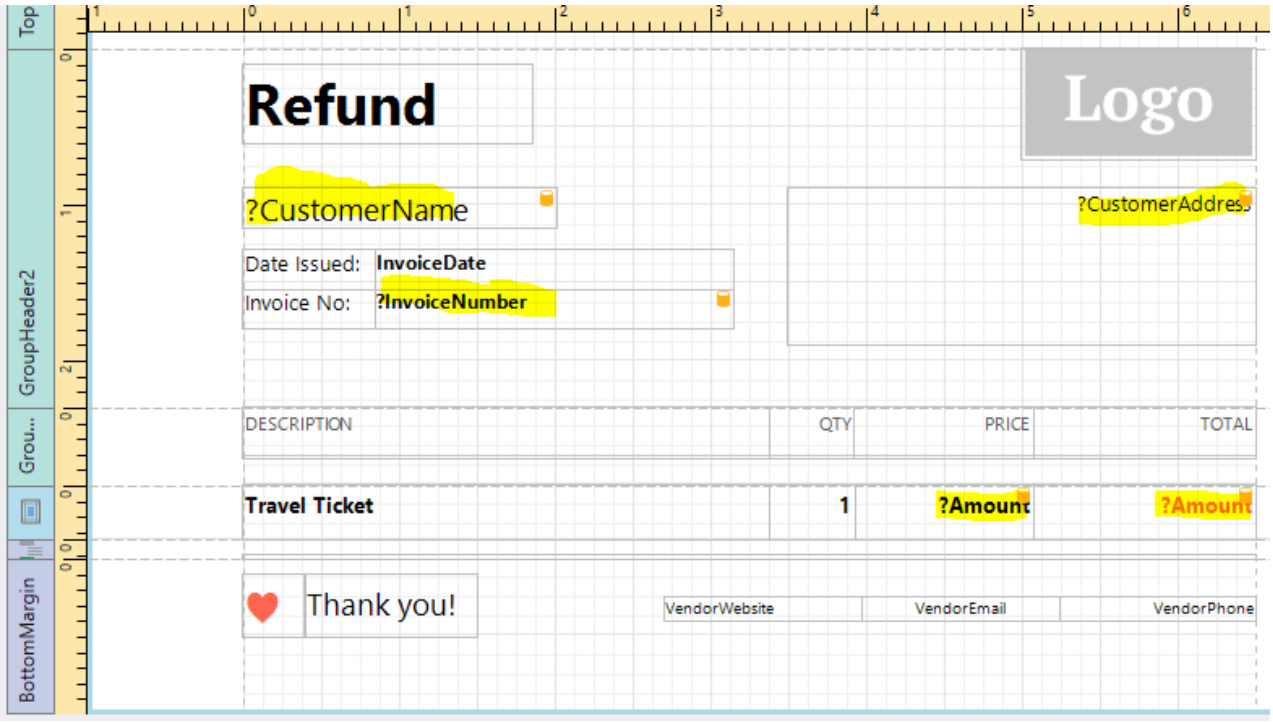
Now modify the report so that it uses the parameters you've created. Start with *CustomerName*. Click on the *CustomerName* text in the reporting area. A small single chevron appears to the top right. Click it:



The *field* dialog box appears. Select *Expression*, then select down arrow  and finally select *CustomerName*:

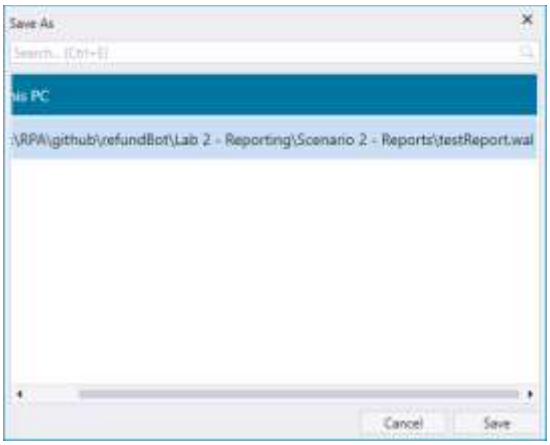


Repeat the above step for each parameter in the reporting area until your report looks like this:

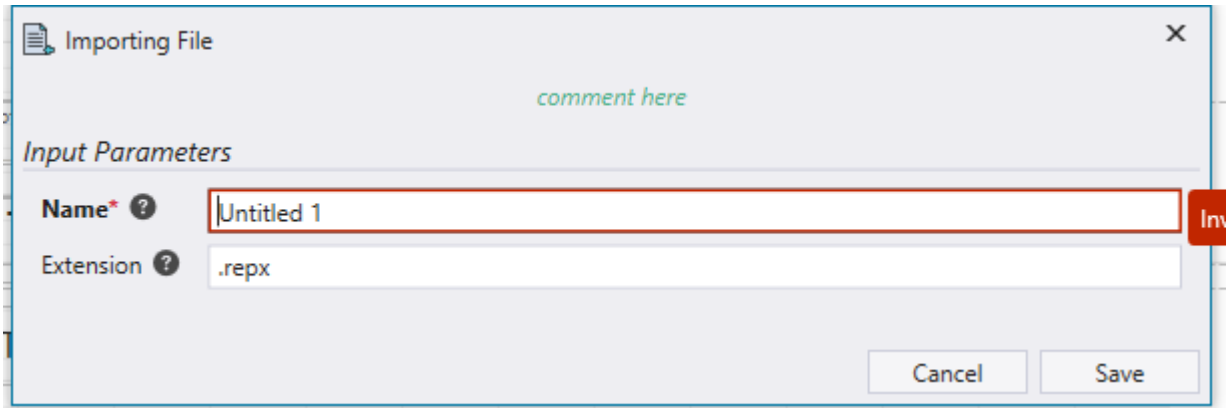


1.3.7 Export Report

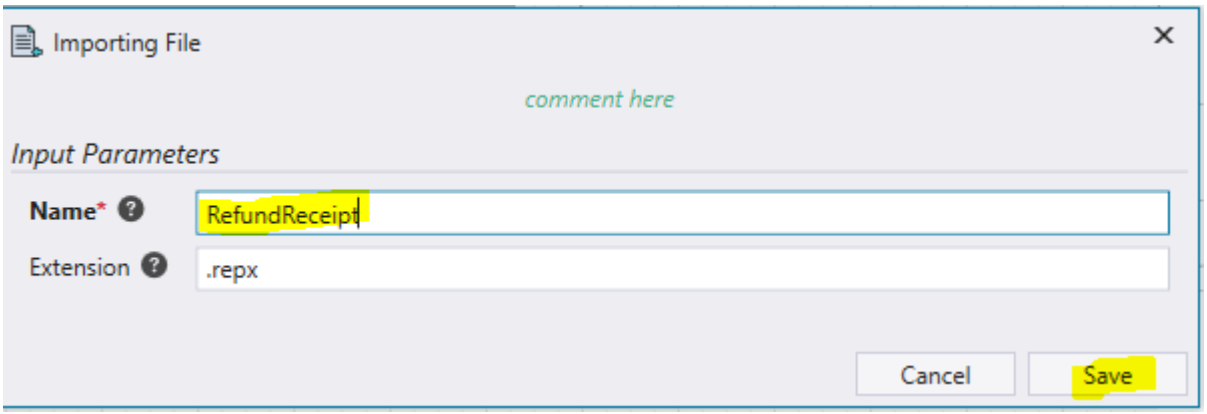
In the *Home* tab, press *Save*. A *Save As* dialog appears. Save the report into the existing *TestReport.wal.* **Important**. You must save the report into the existing script. By doing this, the report becomes an embedded asset within the script:



On pressing Save, you will be presented with the following dialog:

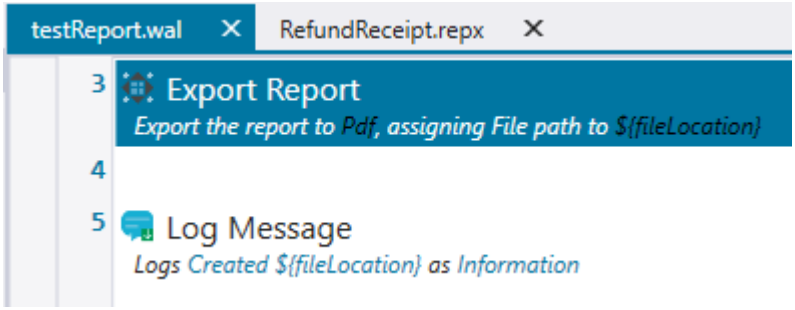


Create a name of *RefundReceipt* and press *Save*.

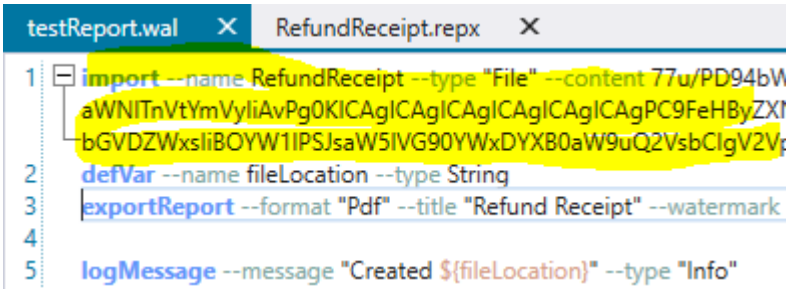


1.3.8 Select the Report Asset

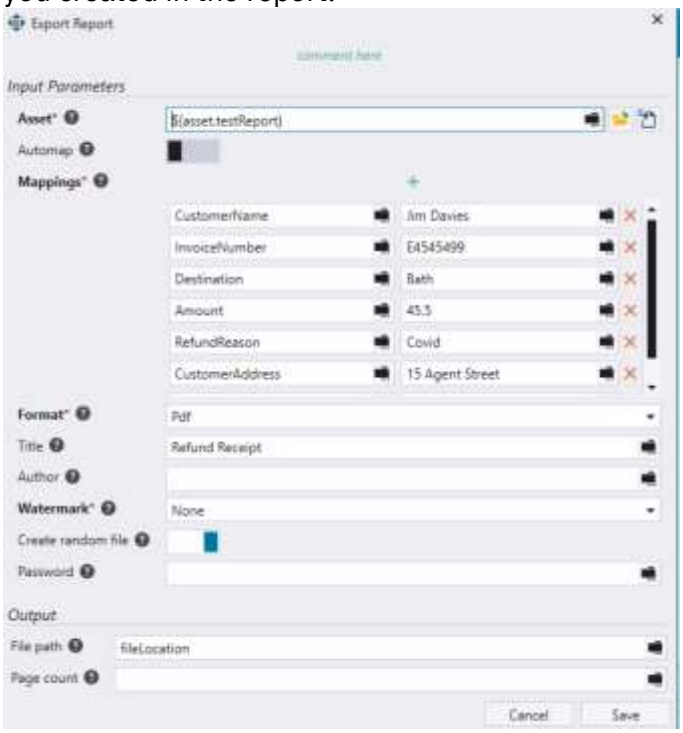
Select *testReport.wal*. Notice that the error has been fixed:



Enter *script* view to verify that the report is embedded as an asset. The asset is stored as encoded ASCII characters.

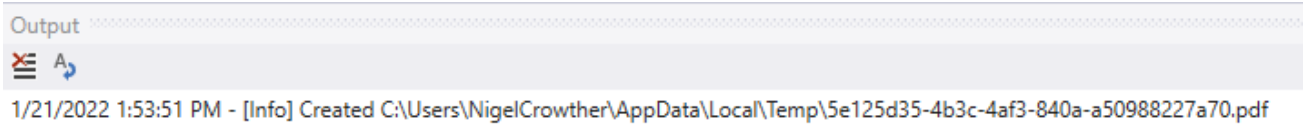


Back in Designer mode, edit the *Export Report* command. Verify that the parameters match those you created in the report:



1.3.9 Run the report

Now run the report (*Ctrl-F5*). In the Output tab you should see the name of the generated report:



Open the PDF by copying and pasting its full path into a browser.
You should see the following report:

Notice the parameters passed from the *ExportReport* command are rendered in the generated report.

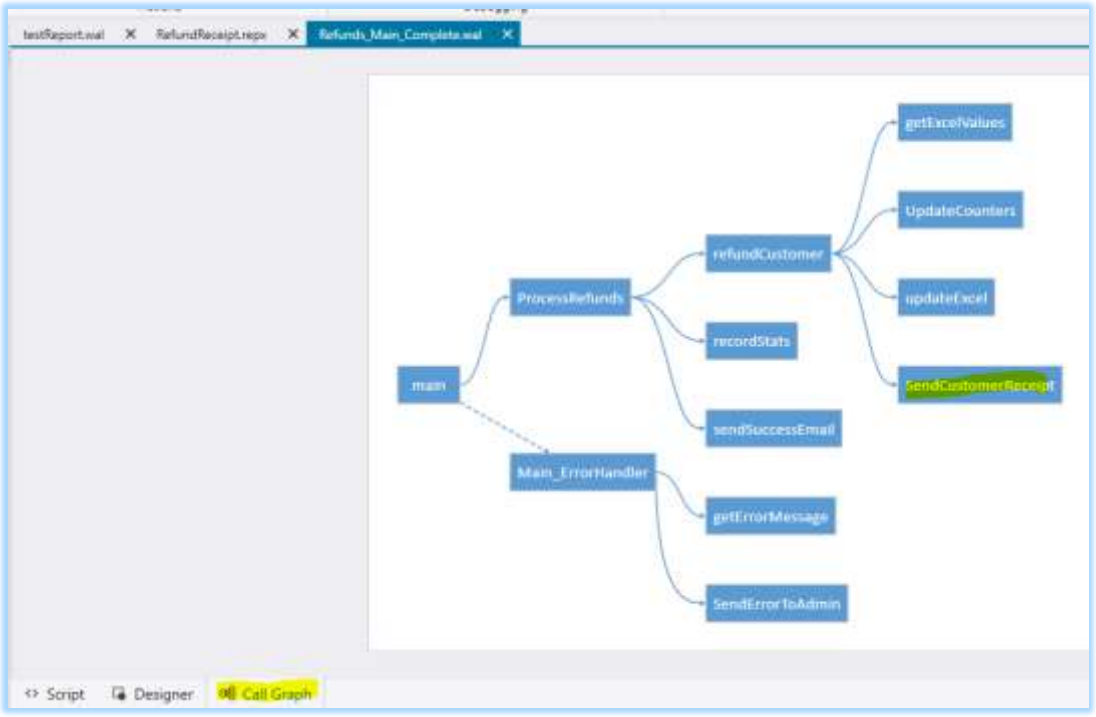
1.3.10 Add report to Refund Bot

The final step is to add this report to the refund bot to create refund receipts.

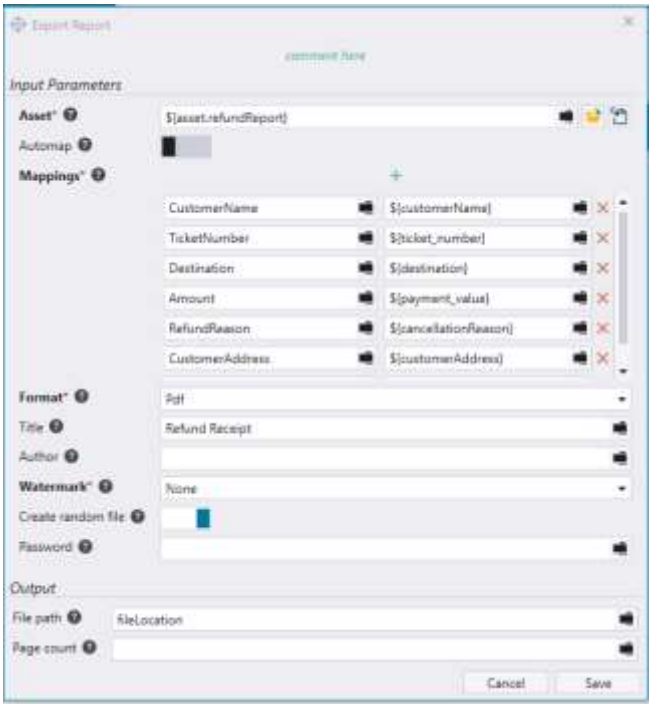
Open the following script in RPA Studio:

`[bot_design_lab]\artefacts\Refunds_Main_Complete.wal`

Select the *Call Graph* tab. Double-click *SendCustomerReceipt*:



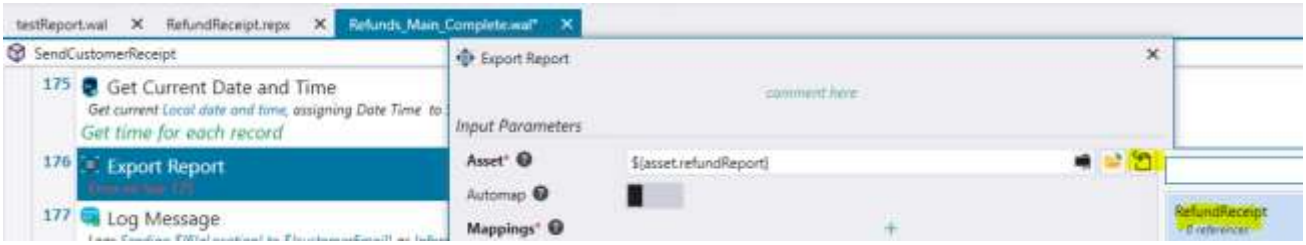
Within the *SendCustomerReceipt* subroutine, open the *Export Report* command. Verify the same parameters match your report:



Notice the only difference between the parameters you created in your report and the ones here is *TicketNumber*. Change it to *InvoiceNumber* to match your report.

Now copy line 1 of *testReport.wal* to replace line 1 of *Refund_main_complete.wal*. This replaces the existing report asset with the one you created. **Tip:** It is easier to copy and paste within *Script* view.

On line 188 you will see an error – *No existing Asset file.* Edit the *Export Report* command to fix. Select the *RefundReceipt* asset as shown in the highlighted area below:



Press *Save*. The error should be fixed.

1.3.11 Run Refunds

Hit *Ctrl-F5* to run the refunds bot. You should see each row in the excel read, and data entered to the website. Each time the script successfully refunds a customer, a refund receipt is generated.

Tip: If you see no refund receipts generated, then edit the customer excel file and reset the data back to its starting state.

On completion, the log output will look something like this:

```
[Info] Finding ticket P3B48847
[Info] Sending C:\temp\1\9a0fcd87-5d16-4886-b5d4-0129a53e0092.pdf to KateyCrumble@talk21.com
[Info] Create Email Body
[Info] Robot finished processing
```

Examine one of the reports generated. It should look like this:

1.3.12 Conclusion

We created a report in RPA studio then saved it as an asset inside a test script. Once tested, we copied this asset into our Refund bot. This enabled the refund bot to create refund receipts for each customer.

Nicely done! This concludes the lab.