

Power Automate Web Scraper Documentation

Project: Car Dealership Vehicle Pricing

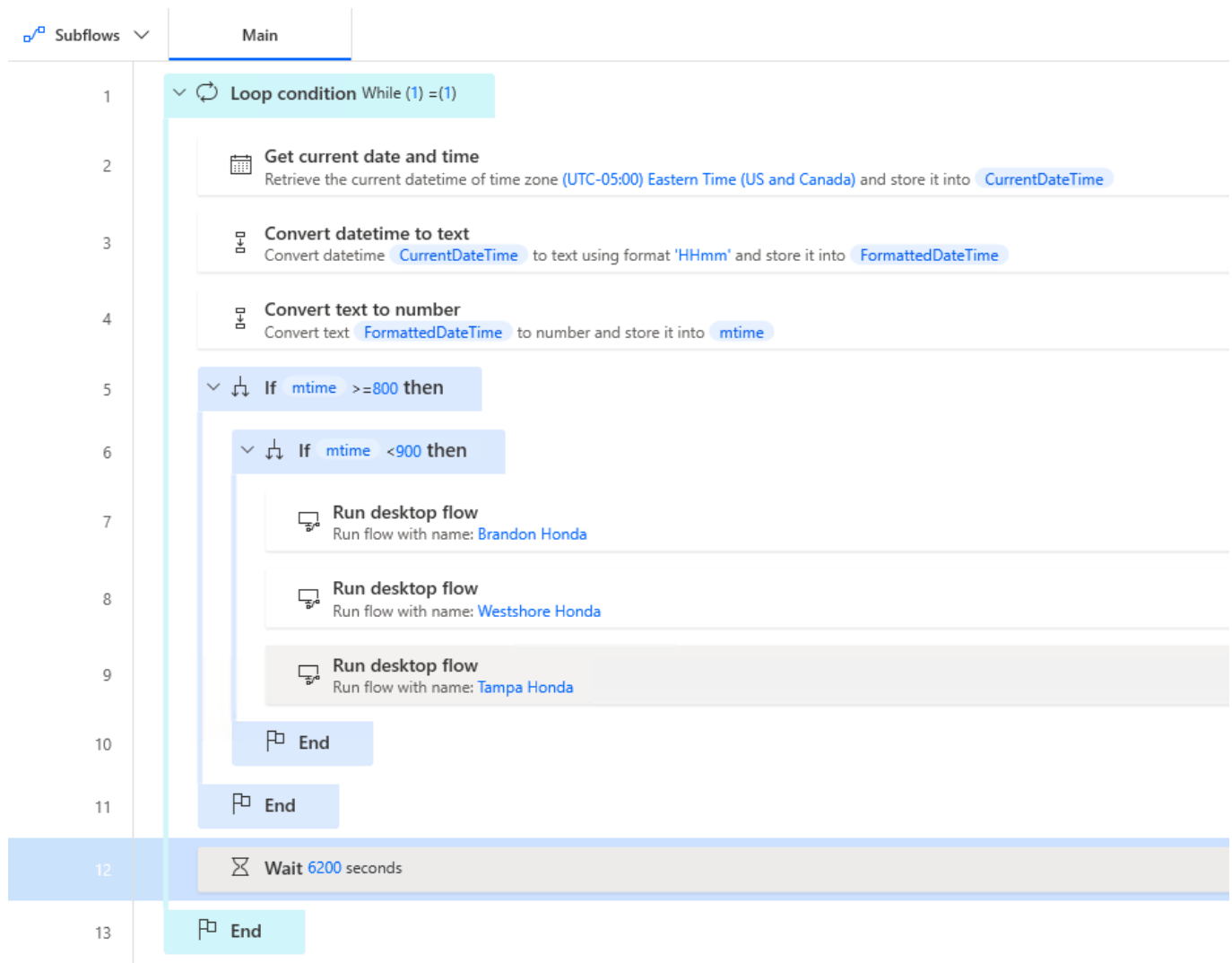
This document will cover the three different web scrapers that are used to extract data from three different Honda dealerships within the Tampa Bay area. The scrapers are similar in structure since they are built from a base template in order to quickly be deployed. Setting up a scraper for a new dealership can take as little as 30 minutes. The scrapers were intentionally changed to demonstrate different techniques for automating flows.

If you want to skip to the most interesting part of the flow that I have not seen anyone else discover, skip to section 8 in the Brandon Honda section.

Run Schedule

Currently I do not have access to Power Automate Cloud as I am trying to prevent spending money on this project, so the scrapers run on a schedule within a desktop flow. The desktop flow is running on a VM I created in Hyper-V on my server running on Windows Server 2019. It writes the files to the mapped network drive used for the entire project.

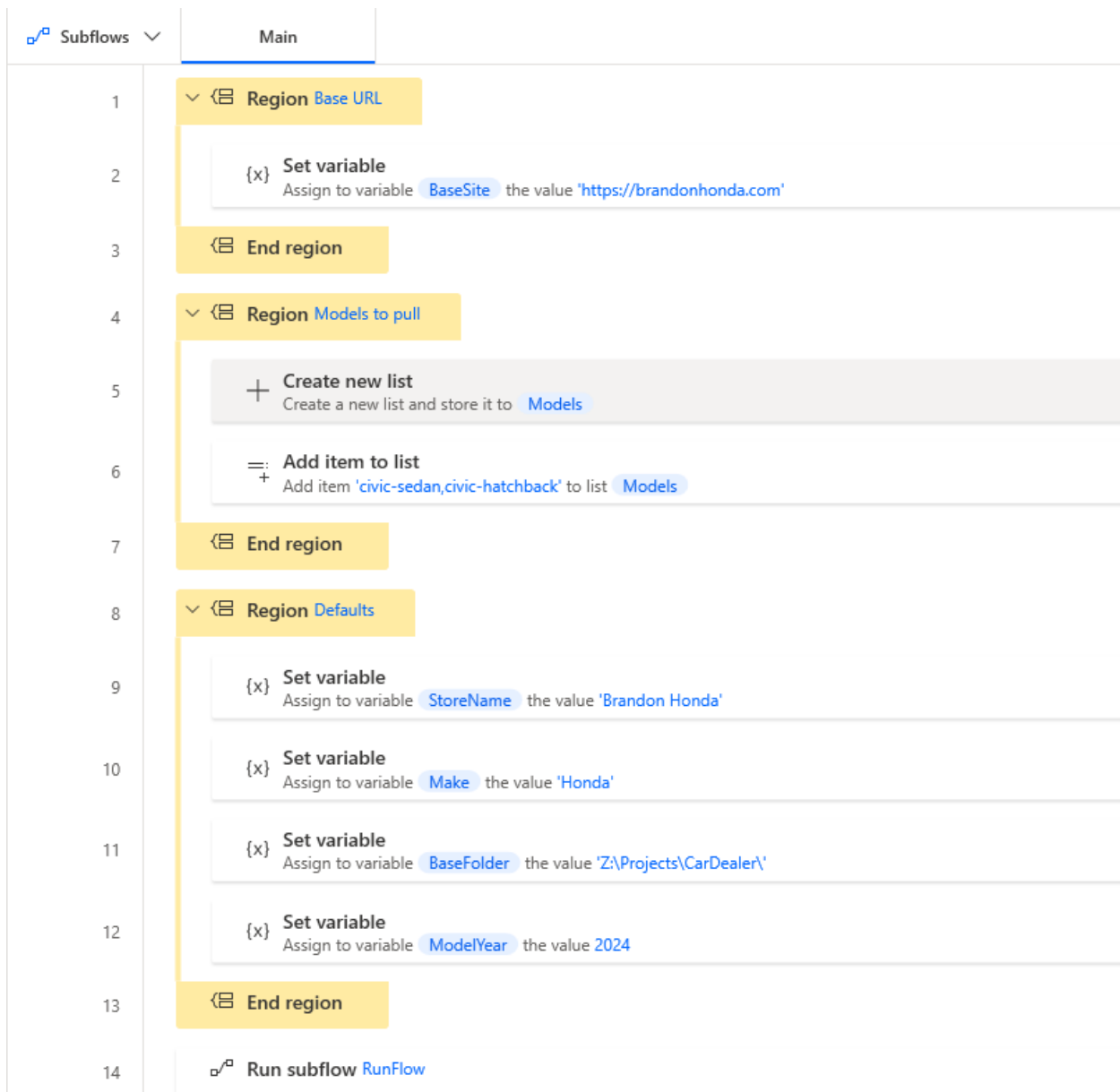
It only has a Main flow as it is a short flow. The loop condition is always true so it never stops. It gets the current date and time, and converts to military time. It then checks if it is between 800 and 900 (8:00 A.M. to 9:00 A.M.), then waits and checks the time again every 60 minutes.



Brandon Honda










1. Main

- The main flow is used to set variables, and add items to lists that will be used throughout the entire flow.






2. RunFlow

- a. Next is a sub flow wrapper where I set all the sub flows to run in a specified order, and additionally place a few additional steps. In this case the web browser is launched, and the StoreName “Brandon Honda” will be set to “Brandon_Honda” as a different variable for saving the file. This will make the file easier to work with for setting it in a path.

Subflows ▾		RunFlow
1		Launch new Microsoft Edge Launch Microsoft Edge, navigate to <code>BaseSite</code> and store the instance into <code>Browser</code>
2		Replace text Replace text <code>'s'</code> with <code>'_'</code> in <code>StoreName</code> and store the result into <code>FileStoreName</code>
3		Run subflow <code>DateTime</code>
4		Run subflow <code>FolderCheck</code>
5		Run subflow <code>PullStores</code>
6		Run subflow <code>CreateExcel</code>
7		Run subflow <code>IterateModel</code>
8		Run subflow <code>SaveExcel</code>
9		Close web browser Close web browser <code>Browser</code>

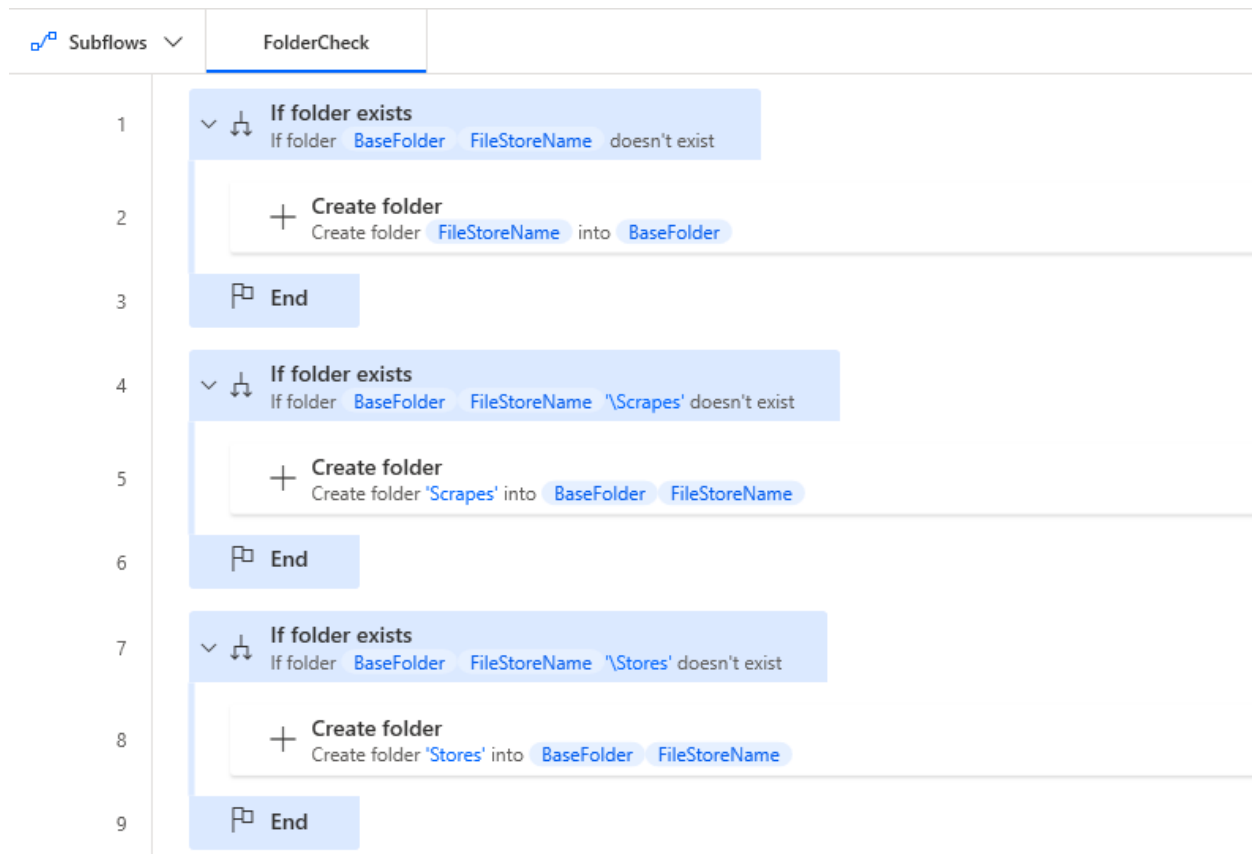
3. DateTime

- This is just a short sub flow to get the date and setting it as a variable for the data table and the file name. The end file will use the store name and date when it is saved.

Subflows ▾		DateTime
1		Get current date and time Retrieve the current datetime and store it into <code>CurrentDateTime</code>
2		Convert datetime to text Convert datetime <code>CurrentDateTime</code> to text using format <code>'MMddyyyy'</code> and store it into <code>FileDateTime</code>
3		Convert datetime to text Convert datetime <code>CurrentDateTime</code> to text using format <code>'MM-dd-yyyy'</code> and store it into <code>WriteDateTime</code>

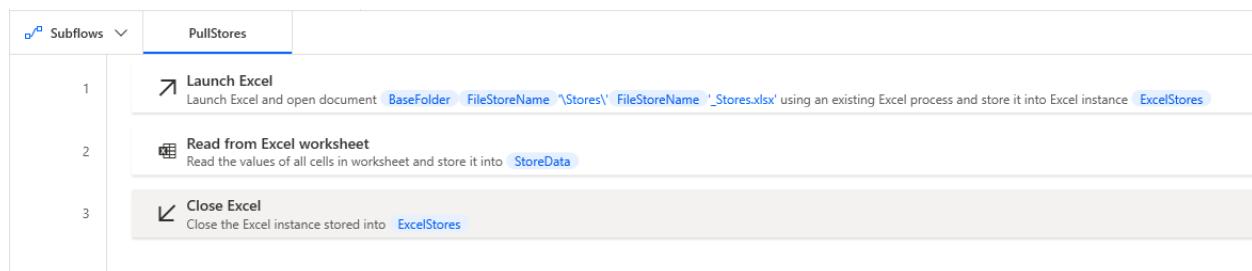
4. FolderCheck

- Checks to see if directories exist for the store the scraper is being setup for, and creates them if not. These directory paths are where generated files will be saved to. This saves time when it comes to setting up file structures.



5. PullStores

- For this scraper, the store data is pulled from an excel file. The store URL is pulled from this file which will be iterated over, and the store details such as the name and address will be part of the output file.



6. CreateExcel

- Excel is the best method for writing data that is extracted using power automate. For SQL server you must iterate over each row of data. Even though the write speeds are fast, it is much quicker to write the entire data table to excel and set up an ETL or ELT package.
- This is broken into two parts for organization. The ungrouped part is for the data and store variables, while the grouped section will be for the extracted data. It's important to set this up to have the same number of columns that will be pulled as this will set your column headers. This usually comes after determining what data will be extracted.

Subflows ▾		CreateExcel
1	{x}	Set variable Assign to variable <code>ColNum</code> the value <code>1</code>
2	↗	Launch Excel Launch Excel with a blank document using an existing Excel process and store it into Excel instance <code>ExcelInstance</code>
3	📄	Write to Excel worksheet Write the value <code>'ScrapeDate'</code> into cell in column <code>ColNum</code> and row <code>1</code> of the Excel instance <code>ExcelInstance</code>
4	↗	Increase variable Increase variable <code>ColNum</code> by <code>1</code>
5	📄	Write to Excel worksheet Write the value <code>'StoreName'</code> into cell in column <code>ColNum</code> and row <code>1</code> of the Excel instance <code>ExcelInstance</code>
6	↗	Increase variable Increase variable <code>ColNum</code> by <code>1</code>
7	📄	Write to Excel worksheet Write the value <code>'StoreAddress1'</code> into cell in column <code>ColNum</code> and row <code>1</code> of the Excel instance <code>ExcelInstance</code>
8	↗	Increase variable Increase variable <code>ColNum</code> by <code>1</code>
9	📄	Write to Excel worksheet Write the value <code>'StoreAddress2'</code> into cell in column <code>ColNum</code> and row <code>1</code> of the Excel instance <code>ExcelInstance</code>
10	▾ 📄	Region CarData

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Region CarData

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Increase variable

Increase variable ColNum by 1

📄

Write to Excel worksheet

Write the value 'Make' into cell in column ColNum and row 1 of the Excel instance ExcellInstance

↗

Increase variable

Increase variable ColNum by 1

📄

Write to Excel worksheet

Write the value 'VIN' into cell in column ColNum and row 1 of the Excel instance ExcellInstance

↗

Increase variable

Increase variable ColNum by 1

📄

Write to Excel worksheet

Write the value 'Year' into cell in column ColNum and row 1 of the Excel instance ExcellInstance

↗

Increase variable

Increase variable ColNum by 1

📄

Write to Excel worksheet

Write the value 'Model' into cell in column ColNum and row 1 of the Excel instance ExcellInstance

↗

Increase variable

Increase variable ColNum by 1

📄

Write to Excel worksheet

Write the value 'ExteriorColor' into cell in column ColNum and row 1 of the Excel instance ExcellInstance

↗

Increase variable

Increase variable ColNum by 1

📄

Write to Excel worksheet

Write the value 'InteriorColor' into cell in column ColNum and row 1 of the Excel instance ExcellInstance

↗

Increase variable

Increase variable ColNum by 1

📄

Write to Excel worksheet

Write the value 'MSRP' into cell in column ColNum and row 1 of the Excel instance ExcellInstance

↗

Increase variable

Increase variable ColNum by 1

📄

Write to Excel worksheet

Write the value 'DealerPrice' into cell in column ColNum and row 1 of the Excel instance ExcellInstance

↗

Increase variable

Increase variable ColNum by 1

📄

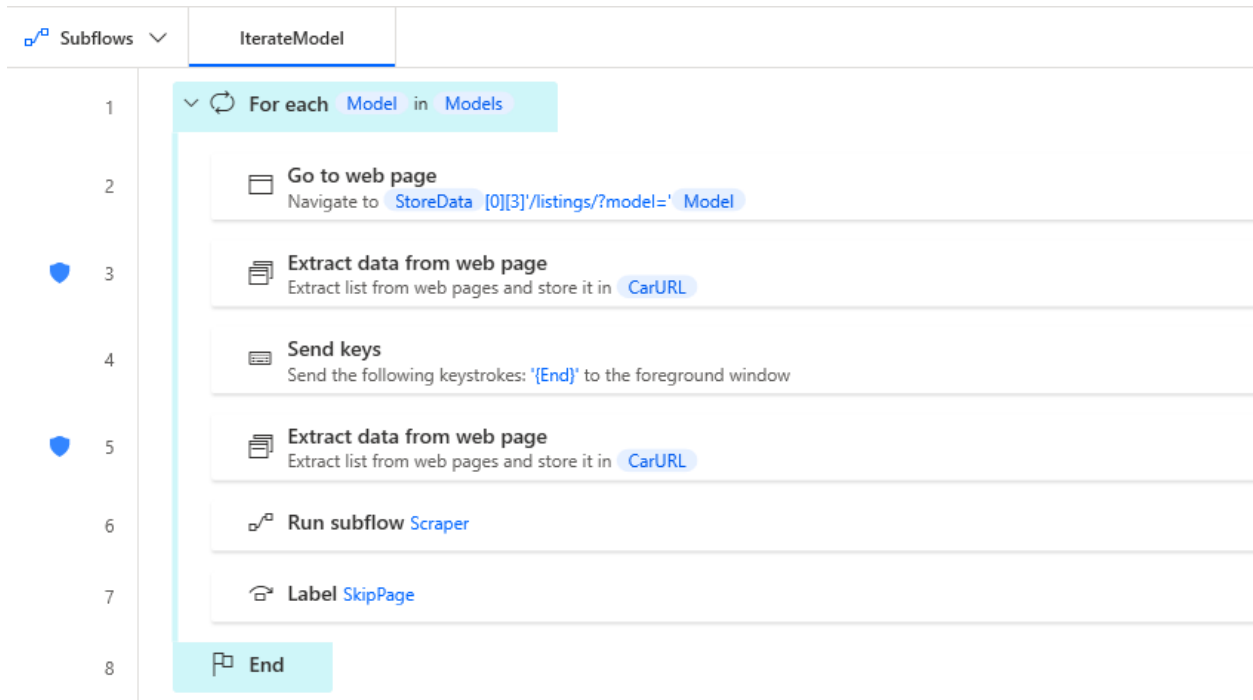
Write to Excel worksheet

Write the value 'CarURL' into cell in column ColNum and row 1 of the Excel instance ExcellInstance

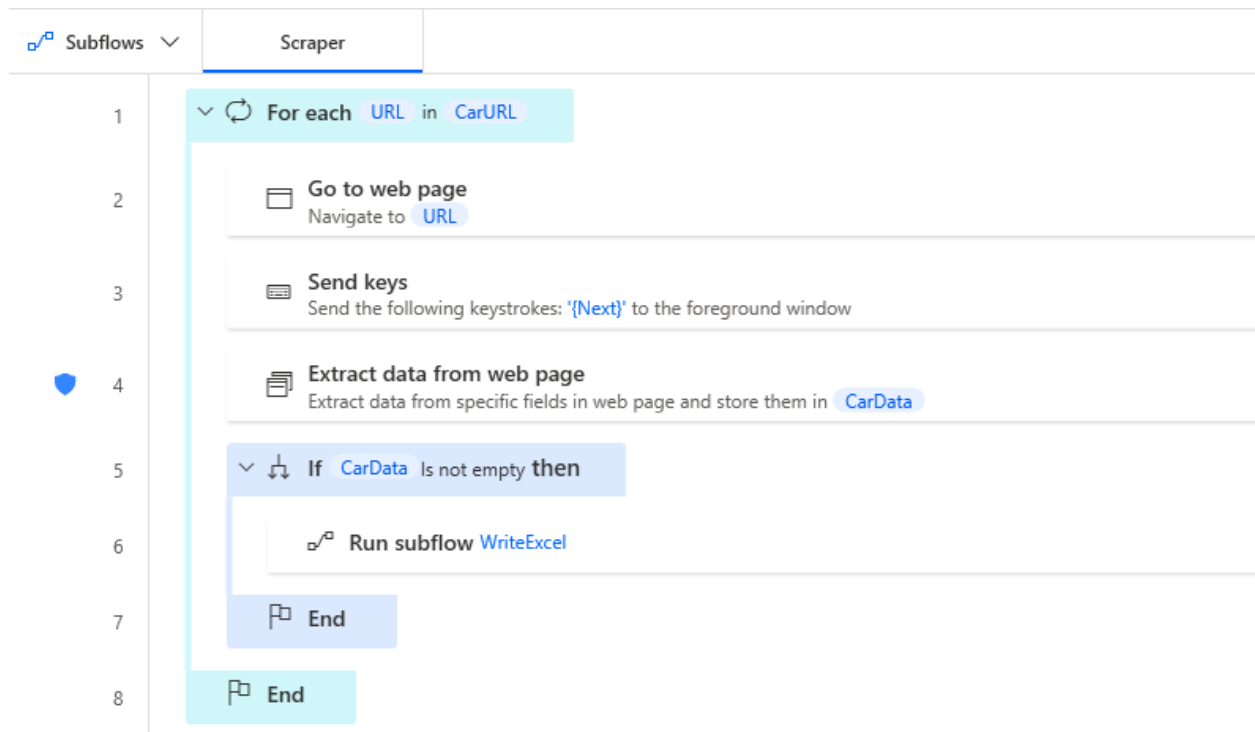
End region

7. IterateModel

- a. The vehicle model variable is used in a for loop to iterate through the webpage listing. The store URL is used from the index indicated in the StoreData variable. This is combined with the rest of the URL needed to iterate through each model. For now it is only Honda Civics, but it could be expanded to pull other models.
- b. Full vehicle details cannot all be extracted from the main page listing for civics, so the URL link to each vehicle is pulled from the web page. Some of the URLs are not fully loaded unless the entire web page is scrolled to the bottom, so an end keystroke is simulated to go to the bottom of the page and load in all the URLs.



8. Scraper
 - a. After the URLs for each vehicle are pulled, another for loop is used to go to each web page.
 - b. The page down (Next) key is used to load in all vehicle details, and the data is extracted into CarData.



- c. One thing I do that I have not seen anyone else discover after reading through many different forms and threads is how I set up the data table to be filled with variables. I specify additional CSS selectors until I have the same number of columns as created in the excel file. Then I used the base part of the CSS selector paths for all extracted elements, set the attribute to Own Text, and then use a regular expression that wont pull any data. This always results in an empty column which can be filled with values from a variable or specified otherwise.

Live web helper - extract data from web page

Refresh

Reset

Extraction preview

Extract handpicked record(s) in the form of 13-column data row.

Value # 3

Value # 4

Value # 5

Value # 6

2HGFE2F51RH544429

Value # 7

Value # 8

2024 Honda Civic Sedan Sport

Value # 9

Lunar Silver Metallic

Value # 10

Black

Value # 11

\$26,645

Value # 12

\$25,517*

Value # 13

Extract data From web page - advanced settings

Extract

Handpicked values

CSS selector:htmlAttribute:Own TextRegex:zzDate

CSS selector:htmlAttribute:Own TextRegex:zzStoreName

CSS selector:htmlAttribute:Own TextRegex:zzStoreAdd1

CSS selector:htmlAttribute:Own TextRegex:zzStoreAdd2

CSS selector:htmlAttribute:Own TextRegex:zzMake

CSS selector:html > body >Attribute:Own TextRegex:

CSS selector:htmlAttribute:Own TextRegex:zzYear

CSS selector:html > body >Attribute:Own TextRegex:

CSS selector:html > body >Attribute:Own TextRegex:

CSS selector:html > body >Attribute:Own TextRegex: \S\S+

CSS selector:html > body >Attribute:Own TextRegex: \S\S+

CSS selector:htmlAttribute:Own TextRegex:zzURL

Specify additional CSS selector

Use paging

OK

Cancel

9. WriteExcel

- This is where the data is written to the Excel file. First, find and replace is used on the data table to fill the empty column with values. The regular expressions “^\\s “ is used to find empty fields in the column index specified, which is then replaced with the specified variable (%WriteDateTime%).
- Next the first free row is determined, and the data is written on that row

Subflows	WriteExcel	
1	<div> <div> </div> <div>Region Update Columns</div> </div>	
2	<div> <div> </div> <div>Find or replace in data table</div> <div>Finds and replaces all items in <code>CarData</code> matching the regex <code>^\s*</code> on column <code>0</code> and stores the matched cells into</div> </div>	
3	<div> <div> </div> <div>Find or replace in data table</div> <div>Finds and replaces all items in <code>CarData</code> matching the regex <code>^\s*</code> on column <code>1</code> and stores the matched cells into</div> </div>	
4	<div> <div> </div> <div>Find or replace in data table</div> <div>Finds and replaces all items in <code>CarData</code> matching the regex <code>^\s*</code> on column <code>2</code> and stores the matched cells into</div> </div>	
5	<div> <div> </div> <div>Find or replace in data table</div> <div>Finds and replaces all items in <code>CarData</code> matching the regex <code>^\s*</code> on column <code>3</code> and stores the matched cells into</div> </div>	
6	<div> <div> </div> <div>Find or replace in data table</div> <div>Finds and replaces all items in <code>CarData</code> matching the regex <code>^\s*</code> on column <code>4</code> and stores the matched cells into</div> </div>	
7	<div> <div> </div> <div>Find or replace in data table</div> <div>Finds and replaces all items in <code>CarData</code> matching the regex <code>^\s*</code> on column <code>6</code> and stores the matched cells into</div> </div>	
8	<div> <div> </div> <div>Find or replace in data table</div> <div>Finds and replaces all items in <code>CarData</code> matching the regex <code>^\s*</code> on column <code>12</code> and stores the matched cells into</div> </div>	
9	<div> <div> </div> <div>End region</div> </div>	
10	<div> <div> </div> <div>Get first free column/row from Excel worksheet</div> <div>Get the first free row in the active worksheet of the Excel document whose instance is stored into <code>ExcelInstance</code> and store it into <code>FirstFreeRow</code></div> </div>	
11	<div> <div> </div> <div>Write to Excel worksheet</div> <div>Write the value <code>CarData</code> into cell in column <code>1</code> and row <code>FirstFreeRow</code> of the Excel instance <code>ExcelInstance</code></div> </div>	

Find or replace in data table

Finds and/or replaces data table values [More info](#)

Data table:

%CarData%

i

Search mode:

Find and replace

v

i

All matches:

☒

i

Text to find:

^\s*

i

Find using a regular expression:

☒

i

Text to replace with:

%WriteDateTime%

i

Search by:

On column

v

i

Column index or name:

0

i

> Variables produced

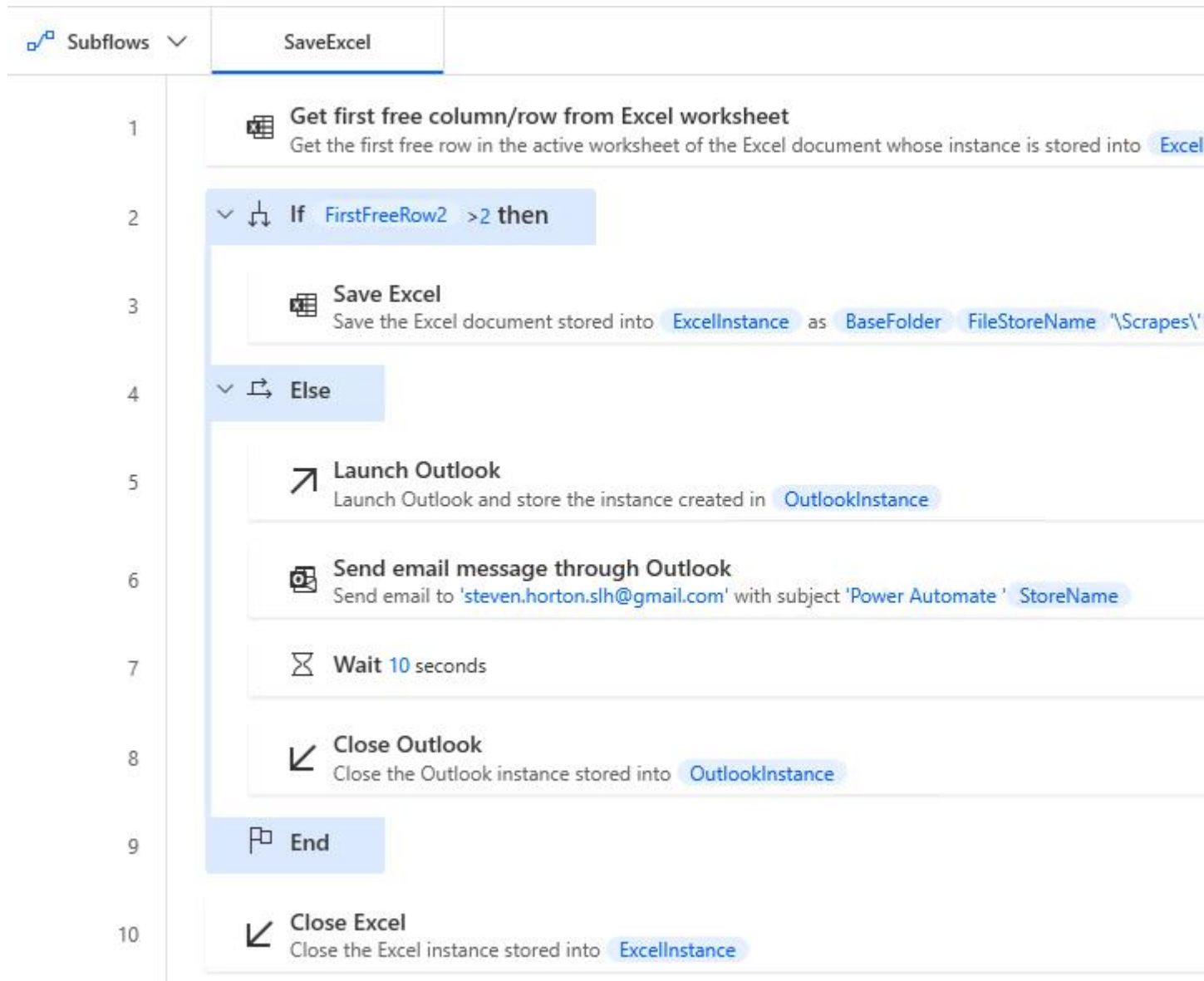
On error

Save

Cancel

10. SaveExcel

- After all the vehicles and models have been iterated over, the Excel file is saved to the directory location with the variables indicating the store and date.
- If for any reason no data is extracted and the Excel file is empty, an email will be sent as a notification of the failed data extraction for the data and store.
- The Excel file shown is what the final output looks like.



Send email message through Outlook

Create and send a new email message through Outlook [More info](#)

Outlook instance: %OutlookInstance% ⓘ

Account: steven.horton.slh@gmail.com ⓘ

Send email message from: Account ⓘ

To: steven.horton.slh@gmail.com ⓘ

CC: ⓘ

BCC: ⓘ

Subject: Power Automate %StoreName% ⓘ

Body: Failed to extract web data on %WriteDateTime% for %StoreName% ⓘ

Body is HTML: ⓘ

Save as draft: ⓘ

Attachment(s): ⓘ

On error

Save

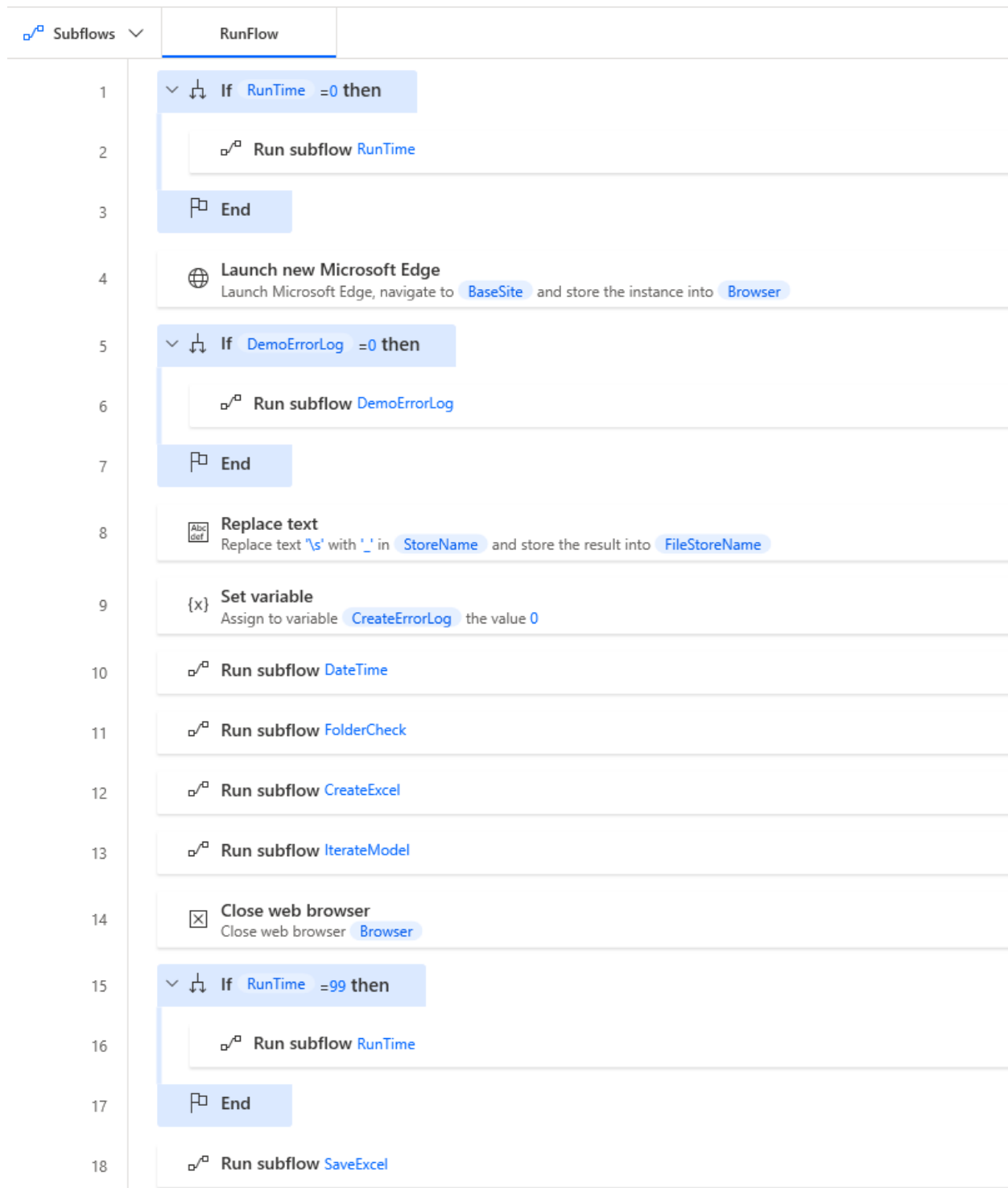
Cancel

1	A	B	C	D	E	F	G	H	I	J	K	L	M
2	Source	StoreName	StoreAddress1	StoreAddress2	Make	VIN	Year	Model	ExteriorColor	InteriorColor	MSRP	DealerPrice	CARURL
1	4/24/2024	Brandon Honda	9209 E Adamo Dr	Tampa, FL 33635	Honda	13K912DH098160327	2024	2024 Honda Civic Hatchback LX	Meteorite Gray Metallic	Black	\$26,045	\$25,075*	https://brandonhonda.com/listings/new-2024-honda-civic-hatchback-lx-13k912dh098160327-0154167
2	4/24/2024	Brandon Honda	9209 E Adamo Dr	Tampa, FL 33635	Honda	24HGF255980513956	2024	2024 Honda Civic Hatchback LX	Platinum White Pearl	Black	\$26,500	\$25,509*	https://brandonhonda.com/listings/new-2024-honda-civic-hatchback-lx-24hgf255980513956-0154168
3	4/24/2024	Brandon Honda	9209 E Adamo Dr	Tampa, FL 33635	Honda	24HGF255980513956	2024	2024 Honda Civic Hatchback LX	Platinum White Pearl	Black	\$26,500	\$25,509*	https://brandonhonda.com/listings/new-2024-honda-civic-hatchback-lx-24hgf255980513956-0154169
4	4/24/2024	Brandon Honda	9209 E Adamo Dr	Tampa, FL 33635	Honda	24HGF255980513956	2024	2024 Honda Civic Hatchback LX	Platinum White Pearl	Black	\$26,500	\$25,509*	https://brandonhonda.com/listings/new-2024-honda-civic-hatchback-lx-24hgf255980513956-0154170
5	4/24/2024	Brandon Honda	9209 E Adamo Dr	Tampa, FL 33635	Honda	24HGF255980513956	2024	2024 Honda Civic Hatchback LX	Platinum White Pearl	Black	\$26,500	\$25,509*	https://brandonhonda.com/listings/new-2024-honda-civic-hatchback-lx-24hgf255980513956-0154171
6	4/24/2024	Brandon Honda	9209 E Adamo Dr	Tampa, FL 33635	Honda	24HGF255980513956	2024	2024 Honda Civic Hatchback LX	Platinum White Pearl	Black	\$26,500	\$25,509*	https://brandonhonda.com/listings/new-2024-honda-civic-hatchback-lx-24hgf255980513956-0154172
7	4/24/2024	Brandon Honda	9209 E Adamo Dr	Tampa, FL 33635	Honda	24HGF255980513956	2024	2024 Honda Civic Hatchback LX	Platinum White Pearl	Black	\$26,500	\$25,509*	https://brandonhonda.com/listings/new-2024-honda-civic-hatchback-lx-24hgf255980513956-0154173
8	4/24/2024	Brandon Honda	9209 E Adamo Dr	Tampa, FL 33635	Honda	24HGF255980513956	2024	2024 Honda Civic Hatchback LX	Platinum White Pearl	Black	\$26,500	\$25,509*	https://brandonhonda.com/listings/new-2024-honda-civic-hatchback-lx-24hgf255980513956-0154174
9	4/24/2024	Brandon Honda	9209 E Adamo Dr	Tampa, FL 33635	Honda	24HGF255980513956	2024	2024 Honda Civic Hatchback LX	Platinum White Pearl	Black	\$26,500	\$25,509*	https://brandonhonda.com/listings/new-2024-honda-civic-hatchback-lx-24hgf255980513956-0154175
10	4/24/2024	Brandon Honda	9209 E Adamo Dr	Tampa, FL 33635	Honda	24HGF255980513956	2024	2024 Honda Civic Hatchback LX	Platinum White Pearl	Black	\$26,500	\$25,509*	https://brandonhonda.com/listings/new-2024-honda-civic-hatchback-lx-24hgf255980513956-0154176
11	4/24/2024	Brandon Honda	9209 E Adamo Dr	Tampa, FL 33635	Honda	24HGF255980513956	2024	2024 Honda Civic Hatchback LX	Platinum White Pearl	Black	\$26,500	\$25,509*	https://brandonhonda.com/listings/new-2024-honda-civic-hatchback-lx-24hgf255980513956-0154177
12	4/24/2024	Brandon Honda	9209 E Adamo Dr	Tampa, FL 33635	Honda	24HGF255980513956	2024	2024 Honda Civic Hatchback LX	Platinum White Pearl	Black	\$26,500	\$25,509*	https://brandonhonda.com/listings/new-2024-honda-civic-hatchback-lx-24hgf255980513956-0154178
13	4/24/2024	Brandon Honda	9209 E Adamo Dr	Tampa, FL 33635	Honda	24HGF255980513956	2024	2024 Honda Civic Hatchback LX	Platinum White Pearl	Black	\$26,500	\$25,509*	https://brandonhonda.com/listings/new-2024-honda-civic-hatchback-lx-24hgf255980513956-0154179
14	4/24/2024	Brandon Honda	9209 E Adamo Dr	Tampa, FL 33635	Honda	24HGF255980513956	2024	2024 Honda Civic Hatchback LX	Platinum White Pearl	Black	\$26,500	\$25,509*	https://brandonhonda.com/listings/new-2024-honda-civic-hatchback-lx-24hgf255980513956-0154180
15	4/24/2024	Brandon Honda	9209 E Adamo Dr	Tampa, FL 33635	Honda	24HGF255980513956	2024	2024 Honda Civic Hatchback LX	Platinum White Pearl	Black	\$26,500	\$25,509*	https://brandonhonda.com/listings/new-2024-honda-civic-hatchback-lx-24hgf255980513956-0154181
16	4/24/2024	Brandon Honda	9209 E Adamo Dr	Tampa, FL 33635	Honda	24HGF255980513956	2024	2024 Honda Civic Hatchback LX	Platinum White Pearl	Black	\$26,500	\$25,509*	https://brandonhonda.com/listings/new-2024-honda-civic-hatchback-lx-24hgf255980513956-0154182
17	4/24/2024	Brandon Honda	9209 E Adamo Dr	Tampa, FL 33635	Honda	24HGF255980513956	2024	2024 Honda Civic Hatchback LX	Platinum White Pearl	Black	\$26,500	\$25,509*	https://brandonhonda.com/listings/new-2024-honda-civic-hatchback-lx-24hgf255980513956-0154183
18	4/24/2024	Brandon Honda	9209 E Adamo Dr	Tampa, FL 33635	Honda	24HGF255980513956	2024	2024 Honda Civic Hatchback LX	Platinum White Pearl	Black	\$26,500	\$25,509*	https://brandonhonda.com/listings/new-2024-honda-civic-hatchback-lx-24hgf255980513956-0154184
19	4/24/2024	Brandon Honda	9209 E Adamo Dr	Tampa, FL 33635	Honda	24HGF255980513956	2024	2024 Honda Civic Hatchback LX	Platinum White Pearl	Black	\$26,500	\$25,509*	https://brandonhonda.com/listings/new-2024-honda-civic-hatchback-lx-24hgf255980513956-0154185
20	4/24/2024	Brandon Honda	9209 E Adamo Dr	Tampa, FL 33635	Honda	24HGF255980513956	2024	2024 Honda Civic Hatchback LX	Platinum White Pearl	Black	\$26,500	\$25,509*	https://brandonhonda.com/listings/new-2024-honda-civic-hatchback-lx-24hgf255980513956-0154186
21	4/24/2024	Brandon Honda	9209 E Adamo Dr	Tampa, FL 33635	Honda	24HGF255980513956	2024	2024 Honda Civic Hatchback LX	Platinum White Pearl	Black	\$26,500	\$25,509*	https://brandonhonda.com/listings/new-2024-honda-civic-hatchback-lx-24hgf255980513956-0154187
22	4/24/2024	Brandon Honda	9209 E Adamo Dr	Tampa, FL 33635	Honda	24HGF255980513956	2024	2024 Honda Civic Hatchback LX	Platinum White Pearl	Black	\$26,500	\$25,509*	https://brandonhonda.com/listings/new-2024-honda-civic-hatchback-lx-24hgf255980513956-0154188
23	4/24/2024	Brandon Honda	9209 E Adamo Dr	Tampa, FL 33635	Honda	24HGF255980513956	2024	2024 Honda Civic Hatchback LX	Platinum White Pearl	Black	\$26,500	\$25,509*	https://brandonhonda.com/listings/new-2024-honda-civic-hatchback-lx-24hgf255980513956-0154189
24	4/24/2024	Brandon Honda	9209 E Adamo Dr	Tampa, FL 33635	Honda	24HGF255980513956	2024	2024 Honda Civic Hatchback LX	Platinum White Pearl	Black	\$26,500	\$25,509*	https://brandonhonda.com/listings/new-2024-honda-civic-hatchback-lx-24hgf255980513956-0154190
25	4/24/2024	Brandon Honda	9209 E Adamo Dr	Tampa, FL 33635	Honda	13K912DH098160327	2024	2024 Honda Civic Hatchback LX	Meteorite Gray Metallic	Black	\$26,045	\$25,075*	https://brandonhonda.com/listings/new-2024-honda-civic-hatchback-lx-13k912dh098160327-0154167
26	4/24/2024	Brandon Honda	9209 E Adamo Dr	Tampa, FL 33635	Honda	13K912DH098160327	2024	2024 Honda Civic Hatchback LX	Meteorite Gray Metallic	Black	\$26,045	\$25,075*	https://brandonhonda.com/listings/new-2024-honda-civic-hatchback-lx-13k912dh098160327-0154167
27	4/24/2024	Brandon Honda	9209 E Adamo Dr	Tampa, FL 33635	Honda	13K912DH098160327	2024	2024 Honda Civic Hatchback LX	Meteorite Gray Metallic	Black	\$26,045	\$25,075*	https://brandonhonda.com/listings/new-2024-honda-civic-hatchback-lx-13k912dh098160327-0154167
28	4/24/2024	Brandon Honda	9209 E Adamo Dr	Tampa, FL 33635	Honda	13K912DH098160327	2024	2024 Honda Civic Hatchback LX	Meteorite Gray Metallic	Black	\$26,045	\$25,075*	https://brandonhonda.com/listings/new-2024-honda-civic-hatchback-lx-13k912dh098160327-0154167
29	4/24/2024	Brandon Honda	9209 E Adamo Dr	Tampa, FL 33635	Honda	13K912DH098160327	2024	2024 Honda Civic Hatchback LX	Meteorite Gray Metallic	Black	\$26,045	\$25,075*	https://brandonhonda.com/listings/new-2024-honda-civic-hatchback-lx-13k912dh098160327-0154167
30	4/24/2024	Brandon Honda	9209 E Adamo Dr	Tampa, FL 33635	Honda	13K912DH098160327	2024	2024 Honda Civic Hatchback LX	Meteorite Gray Metallic	Black	\$26,045	\$25,075*	https://brandonhonda.com/listings/new-2024-honda-civic-hatchback-lx-13k912dh098160327-0154167
31	4/24/2024	Brandon Honda	9209 E Adamo Dr	Tampa, FL 33635	Honda	13K912DH098160327	2024	2024 Honda Civic Hatchback LX	Meteorite Gray Metallic	Black	\$26,045	\$25,075*	https://brandonhonda.com/listings/new-2024-honda-civic-hatchback-lx-13k912dh098160327-0154167
32	4/24/2024	Brandon Honda	9209 E Adamo Dr	Tampa, FL 33635	Honda	13K912DH098160327	2024	2024 Honda Civic Hatchback LX	Meteorite Gray Metallic	Black	\$26,045	\$25,075*	https://brandonhonda.com/listings/new-2024-honda-civic-hatchback-lx-13k912dh098160327-0154167
33	4/24/2024	Brandon Honda	9209 E Adamo Dr	Tampa, FL 33635	Honda	13K912DH098160327	2024	2024 Honda Civic Hatchback LX	Meteorite Gray Metallic	Black	\$26,045	\$25,075*	https://brandonhonda.com/listings/new-2024-honda-civic-hatchback-lx-13k912dh098160327-0154167
34	4/24/2024	Brandon Honda	9209 E Adamo Dr	Tampa, FL 33635	Honda	13K912DH098160327	2024	2024 Honda Civic Hatchback LX	Meteorite Gray Metallic	Black	\$26,045	\$25,075*	https://brandonhonda.com/listings/new-2024-honda-civic-hatchback-lx-13k912dh098160327-0154167
35	4/24/2024	Brandon Honda	9209 E Adamo Dr	Tampa, FL 33635	Honda	13K912DH098160327	2024	2024 Honda Civic Hatchback LX	Meteorite Gray Metallic	Black	\$26,045	\$25,075*	https://brandonhonda.com/listings/new-2024-honda-civic-hatchback-lx-13k912dh098160327-0154167
36	4/24/2024	Brandon Honda	9209 E Adamo Dr	Tampa, FL 33635	Honda	13K912DH098160327	2024	2024 Honda Civic Hatchback LX	Meteorite Gray Metallic	Black	\$26,045	\$25,075*	https://brandonhonda.com/listings/new-2024-honda-civic-hatchback-lx-13k912dh098160327-0154167
37	4/24/2024	Brandon Honda	9209 E Adamo Dr	Tampa, FL 33635	Honda	13K912DH098160327	2024	2024 Honda Civic Hatchback LX	Meteorite Gray Metallic	Black	\$26,045	\$25,075*	https://brandonhonda.com/listings/new-2024-honda-civic-hatchback-lx-13k912dh098160327-0154167
38	4/24/2024	Brandon Honda	9209 E Adamo Dr	Tampa, FL 33635	Honda	13K912DH098160327	2024	2024 Honda Civic Hatchback LX	Meteorite Gray Metallic	Black	\$26,045	\$25,075*	https://brandonhonda.com/listings/new-2024-honda-civic-hatchback-lx-13k912dh098160327-0154167
39	4/24/2024	Brandon Honda	9209 E Adamo Dr	Tampa, FL 33635	Honda	13K912DH098160327	2024	2024 Honda Civic Hatchback LX	Meteorite Gray Metallic	Black	\$26,045	\$25,075*	https://brandonhonda.com/listings/new-2024-honda-civic-hatchback-lx-13k912dh098160327-0154167
40	4/24/2024	Brandon Honda	9209 E Adamo Dr	Tampa, FL 33635	Honda	13K912DH098160327	2024	2024 Honda Civic Hatchback LX	Meteorite Gray Metallic	Black	\$26,045	\$25,075*	https://brandonhonda.com/listings/new-2024-honda-civic-hatchback-lx-13k912dh098160327-0154167
41	4/24/2024	Brandon Honda	9209 E Adamo Dr	Tampa, FL 33635	Honda	13K912DH098160327	2024	2024 Honda Civic Hatchback LX	Meteorite Gray Metallic	Black	\$26,045	\$25,075*	https://brandonhonda.com/listings/new-2024-honda-civic-hatchback-lx-13k912dh098160327-0154167
42	4/24/2024	Brandon Honda	9209 E Adamo Dr	Tampa, FL 33635	Honda	13K912DH098160327	2024	2024 Honda Civic Hatchback LX	Meteorite Gray Metallic	Black	\$26,045	\$25,075*	https://brandonhonda.com/listings/new-2024-honda-civic-hatchback-lx-13k912dh098160327-0154167
43	4/24/2024	Brandon Honda	9209 E Adamo Dr	Tampa, FL 33635	Honda	13K912DH098160327	2024	2024 Honda Civic Hatchback LX	Meteorite Gray Metallic	Black	\$26,045	\$25,075*	https://brandonhonda.com/listings/new-2024-honda-civic-hatchback-lx-13k912dh098160327-0154167
44	4/24/2024	Brandon Honda	9209 E Adamo Dr	Tampa, FL 33635	Honda	13K912DH098160327	2024	2024 Honda Civic Hatchback LX	Meteorite Gray Metallic	Black	\$26,045	\$25,075*	https://brandonhonda.com/listings/new-2024-honda-civic-hatchback-lx-13k912dh098160327-0154167
45	4/24/2024	Brandon Honda	9209 E Adamo Dr	Tampa, FL 33635	Honda	13K912DH098160327	2024	2024 Honda Civic Hatchback LX	Meteorite Gray Metallic	Black	\$26,045	\$25,075*	https://brandonhonda.com/listings/new-2024-honda-civic-hatchback-lx-13k912dh098160327-0154167
46	4/24/2024	Brandon Honda	9209 E Adamo Dr	Tampa, FL 33635	Honda	13K912DH098160327	2024	2024 Honda Civic Hatchback LX	Meteorite Gray Metallic	Black	\$26,045	\$25,075*	https://brandonhonda.com/listings/new-2024-honda-civic-hatchback-lx-13k912dh098160327-0154167
47	4/24/2024	Brandon Honda	9209 E Adamo Dr	Tampa, FL 33635	Honda	13K912DH098160327	2024	2024 Honda Civic Hatchback LX	Meteorite Gray Metallic	Black	\$26,045	\$25,075*	https://brandonhonda.com/listings/new-2024-honda-civic-hatchback-lx-13k912dh098160327-0154167
48	4/24/2024	Brandon Honda	9209 E Adamo Dr	Tampa, FL 33635	Honda	13K912DH098160327	2024	2024 Honda Civic Hatchback LX	Meteorite Gray Metallic	Black	\$26,045	\$25,075*	https://brandonhonda.com/listings/new-2024-honda-civic-hatchback-lx-13k912dh0

Westshore Honda

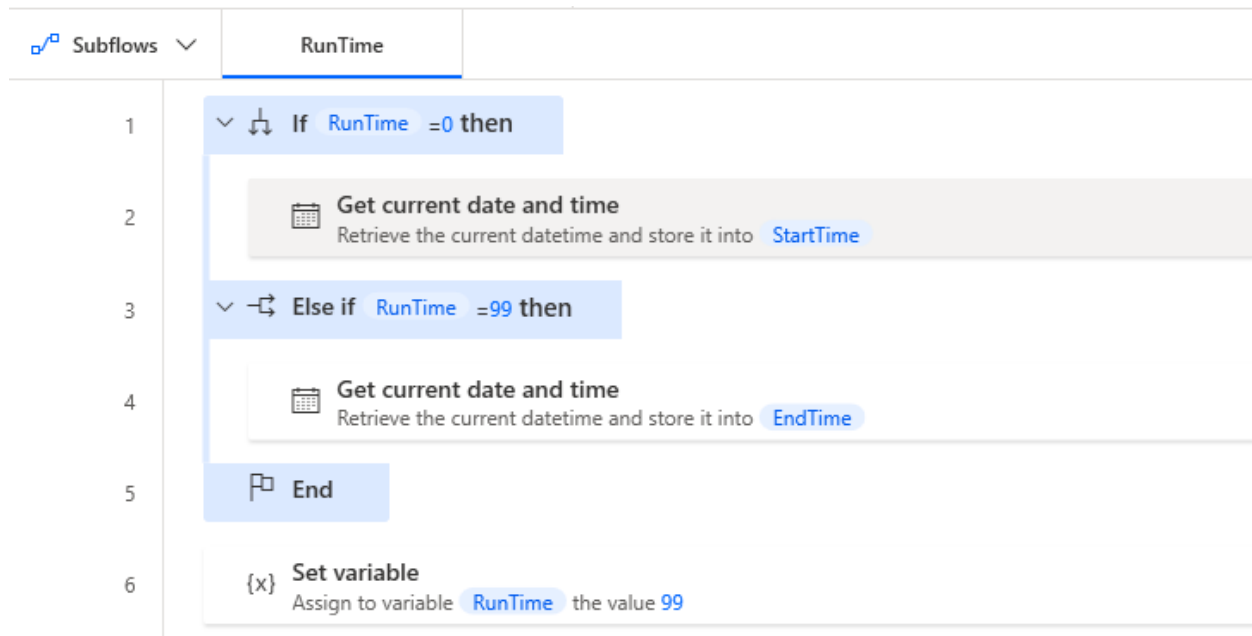
I will keep it short and show the different features between this flow and the previous flow. This adds run time tracking and has an error log.

1. RunFlow
 - a. The RunTime variable is set to 0 in the Main flow. This triggers the sub flow through an if statement. RunTime is set to 99 in the RunTime sub flow, so it is triggered again at the very end of the entire flow.



2. RunTime

- A simple sub flow to capture the start time at the beginning when the RunTime variable is set to 0. It then changes to 99 so once the flow is triggered again at the end it sets the time to EndTime instead of StartTime.



3. ErrorLog

- An error log is created to track issues that happen within the flow. This allows you to continue running the rest of the flow if it is not a critical error. The error log is later written to an Excel file with all errors incurred in the flow.
- The errors are produced by setting error rules within a step in certain actions. The variables are set to be written in the ErrorLog sub flow, which is run whenever an error occurs.

Go to web page

The following rules will apply if the action fails [More info](#)

> Retry policy None ⓘ

⌵ All errors + New rule ✕ Clear all

Variable RunPageLoop to 1

Continue flow run

Throw error

Exception handling mode

Go to next action

⌵ Advanced

Failed to navigate to web page

+ New rule ✕ Clear all

Variable ErrorType to Failed to navigate to web page

Variable ErrorMessage to Flow: IterateModel, step 8. For %Model% in for loop while iterating through pages.

Run subflow ErrorLog

Continue flow run

Throw error

Exception handling mode

Go to next action

Invalid URL

+ New rule ✕ Clear all

Variable ErrorType to Invalid URL

Variable ErrorMessage to Flow: IterateModel, step 8. For %Model% in for loop while iterating through pages.

Run subflow ErrorLog

Continue flow run

Throw error

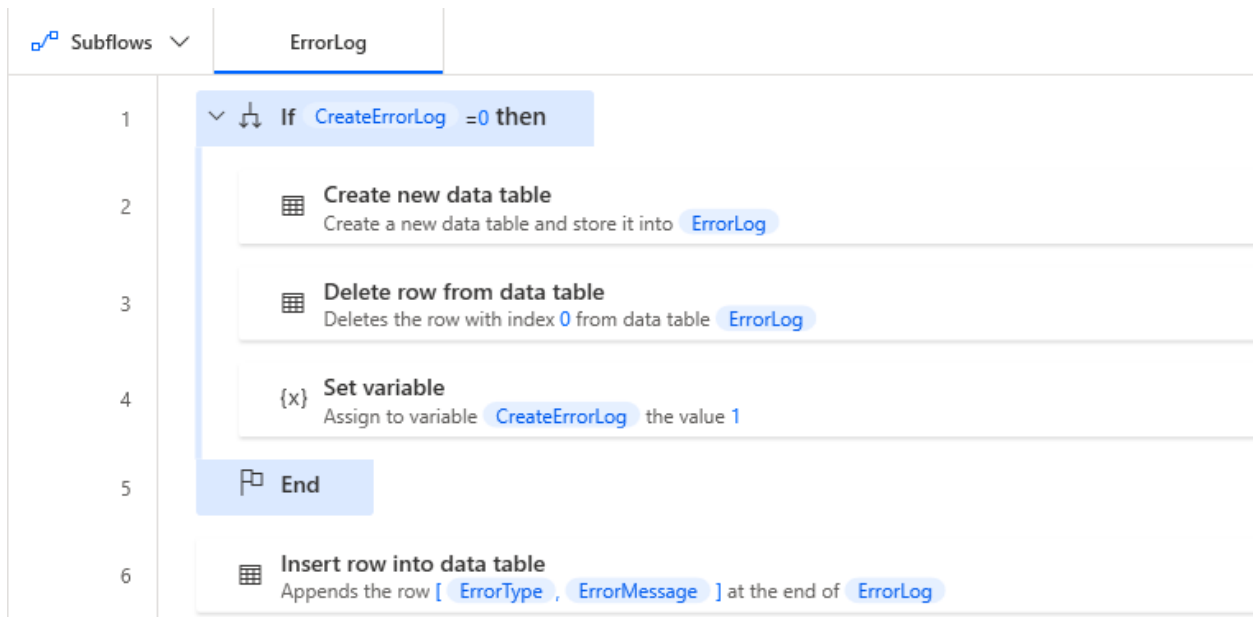
Exception handling mode

Go to next action

[← Return to parameters](#)

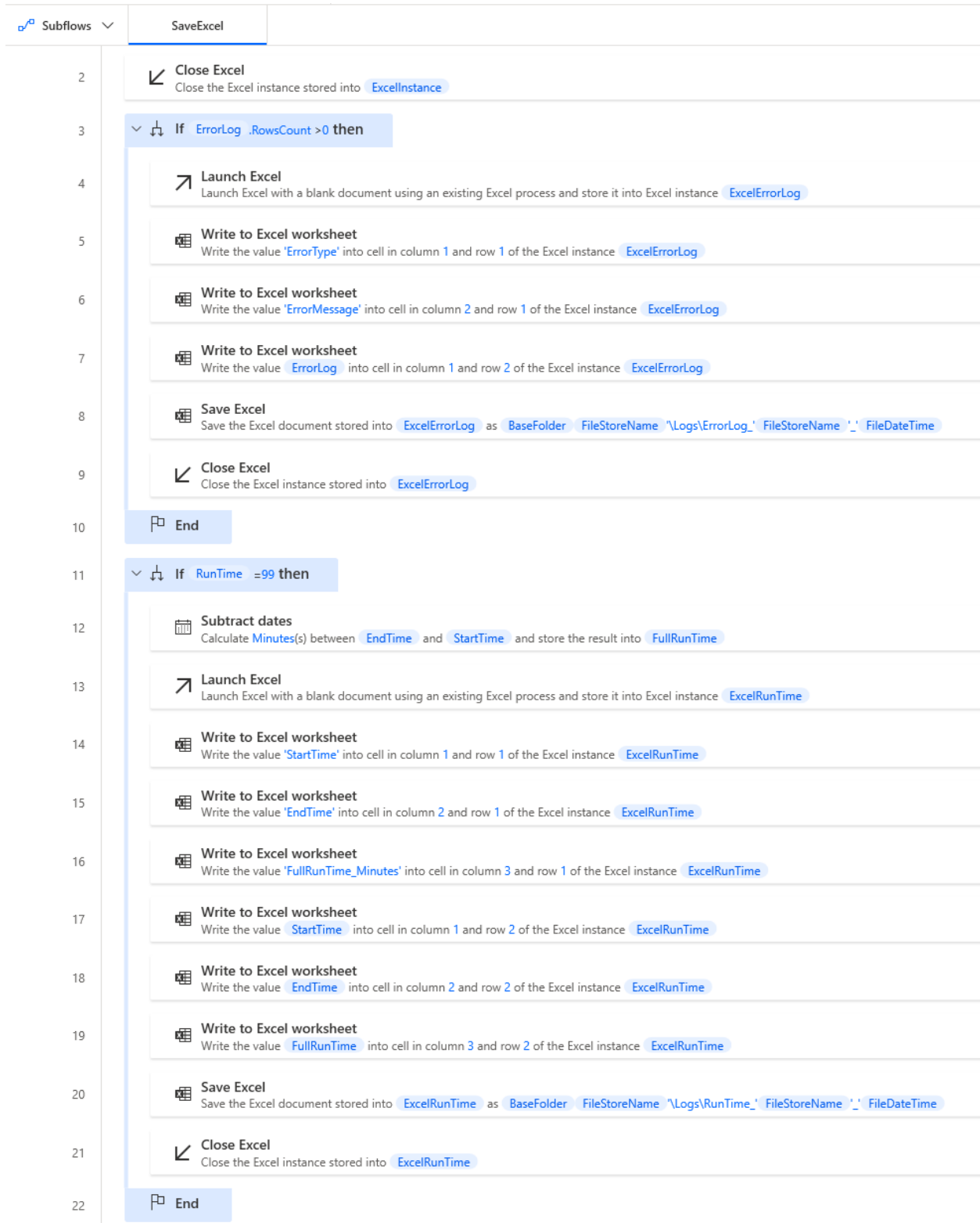
Save

Cancel



4. SaveExcel

- a. The error log and run time files are created and written in the SaveExcel sub flow, and written to their perspective locations within the directory structure.



Tampa Honda

As of right now the Tamp Honda scraper has no additional features or elements, but it will pull the stores from SQL, and setup directory locations and other variables from a config file in the future. The config file is something you can edit and have the changes apply to all flows that pull their config variables from the file, rather than hard coding each configuration and variables into the flow.