Automation Test Suite

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Why this testing suite?

- This project is a one stop shop for all automation needs like web testing, web scraping, monitoring and data population using simple commands.
- It enhances flexibility of maintaining the continuity of data, in lengthy automation scenarios through excel workbook.
- The excel tables and predefined columns makes it easy to visualize the dataflow.
- Excel columns apart from the predefined ones can be used for advanced calculations and maintain the data continuity between different tests.
- Suite is useful in simplifying the test and flow management in most scenarios, for those having no code knowledge.
- The available source code can be altered using minimum steps.
- Data is generated sequentially in logs and json files in easy to reuse format.
- The updated project will have the support of Selenium and Appium so the the data in same excel sheet/workbook can be used to simultaneously test web and mobile applications.
- Pytest and AI is in queue. Possibility of exploring similar features are endless.

Will this work for me?

- This suite can cater from simplest to highly complex programs. Features to add short code snippets in excel itself is inbuilt. Any user with minimal knowledge of Python can use the feature as entire automation is handled by the application.
- New features are being developed to minimise coding requirement for user and maximise flexibility & functionality in excel sheet.

Tech?

- The code engages with browser automation using Playwright. Possiblities are being explored to support Selenium, API testing and mobile testing(Appium) using the same excel format.

Building the project

1) **Clone the project to your desired directory** git clone git@github.com:BoneyGupta/Amazon-Webscraping.git
2) **Add the required libraries**

   Prerequisites:

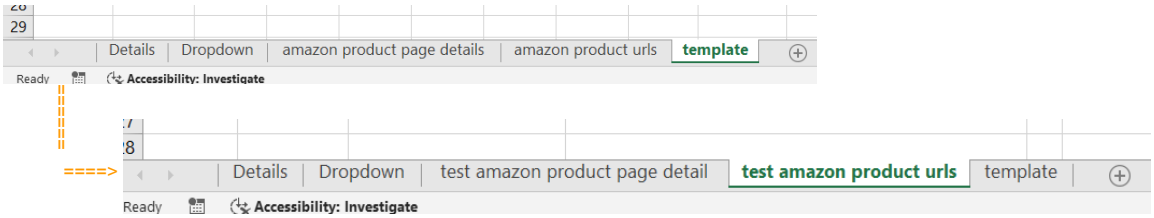
   - **Python**: Ensure you have Python 3.7 or later installed on your system. You can check your Python version by running python --version in your terminal or command prompt.
   - **pip**: Make sure pip, the Python package installer, is also installed. If not, you can install it by following the instructions for your operating system:
     > Windows: Download and run the get-pip.py script from https://bootstrap.pypa.io/get-pip.py.
     > macOS/Linux: Open your terminal and run python3 -m pip install --upgrade pip.

   Installation:

   - Open your terminal or command prompt.
   - Install Playwright using pip: pip install playwright
   - Install the Playwright browser binaries: playwright install
   - Install openpyxl: pip install openpyxl
5) **Add Chrome Application folder to your directory (If cdp is required)**
   - Install Chrome Browser on your device.
   - Copy the folder C:\Program Files\Google\Chrome\Application and add it to your directory.
   - Open command line runner and run the command chrome.exe --remote-debugging-port=9988 --user-data-dir=..\\chromedata
   - Wait for the browser to open and in the running browser login to the desired website.
6) **Make changes to Test.xlsx (Steps given in the next sheets) and Run the program** python main.py

Step 1: First steps to start the process

1) Go the the automation testing suite directory >> open excel directory
2) Open the Test.xlsx for your first program(you can refer to 'Template.xlsx' and 'Automation Test Suite Commands.xlsx')
   Presently, only the excel file named as 'Test.xlsx' will be run for automation.
3) A pre-filled sheets will be present for your aide.
4) There are three required sheets(Details, Sheet having 'test' in its name and Dropdown) for the execution of test cases.
   Update the name of all the sheets which are up for testing with 'test' as prefix.



All the sheets and fields are described with the help of test case: amazon product page details

Step 2: Details Entry

Open the 'Details' sheet in 'Test.xlsx

		Field entry options:	Description:
Test Name	Amazon Test	Any alphanumeric value	Declares the name of the Test
Browser	Chrome	Chrome, Firefox, Edge	Select a browser
Website	https://www.amazon.in	Complete website url	Website names should be complete with https:// or similar prefix
Headless	TRUE	TRUE, FALSE	Headless testing is a testing which allows the browser to run in the backgroud without GUI.
cdp	TRUE	TRUE, FALSE	cdp is required when we want to work with already logged on browser with wesites which requires login or captcha. Do not support Headless testing

Step 3: Create a test Sheet Create a new sheet with the below columns and add 'test' prefix if you want to run it as a test.

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
1	1	2	3	4	5	6	7	8	13	9	10	11	12	15	16	17
2	Element ID	Description	Execute	Locator	nth	Action	Value	Assert	Condition	Assert Value	Stored Value Key	Wait(ms)	URL	File Path	Conditonal Key	Conditional Statement dictionary: dict ={}
3																
4																
5																

*Next steps might be optional depending on the test.

1) Fill in the Element ID(User can add any alphanumeric value depending on their organization)

2) Performing a basic action
   >> Add the locator of the element
   >> Add nth (in case of multiple elements with same locator)
   >> Add the action you want to perform (Actions can be viewed from Dropdown sheet)
   >> Add the value (Search Item name) you wish to pass through the action
   >> add a wait timer (default is 3000 millisecond) which waits for the element to be interactable.
   Now we can open amazon.in go to the search box, fill up 'smartphone' and click search.

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
1	1	2	3	4	5	6	7	8	13	9	10	11	12	15	
2	Element ID	Description	Execute	Locator	nth	Action	Value	Assert	Condition	Assert Value	Stored Value Key	Wait(ms)	URL	File Path	Conditonal Key
3	2	Fill the Search Box in amazon.in		//input[@id="twotabse		fill	Smartphone					30000			
4	3	Click Search		//input[@id='nav-searc		click						15000			
5															

3) Add an assertion
   >> hard assertion means the test will terminate on error
   >> soft means the test will continue with logging the case as failed
   >> if assertion is left blank, in case of any error, the test will terminate.
   >> fill the assert type, the assert condition and the assert value if required.
   In element id 5 and 6, we are checking for the elements to be attached to the DOM and storing the text content of product title and rating in a dictionary.

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
1	1	2	3	4	5	6	7	8	13	9	10	11	12	15	
2	Element ID	Description	Execute	Locator	nth	Action	Value	Assert	Condition	Assert Value	Stored Value Key	Wait(ms)	URL	File Path	Conditonal Key
3	2	Fill the Search Box in amazon.in		//input[@id="twotabse		fill	Smartphone					30000			
4	3	Click Search		//input[@id='nav-searc		click						15000			
5															

4) Add a loop There are 3 types of looping sequence we can use

Loop Type 1 : Simple Loop								
Description	**Locator**	**nth**	**Action**	**Value**	**Assert**	**Condition**	**Assert Value**	**Stored Value Key**
start loop	locator							key
…test rows goes here…								
end loop								

Description: This is a simple loop. The loop will iterate through all the elements in the element list created through the given locator. The key is given to store loop data in the reference loop dictionary and data dictionary.

Loop Type 2 : end case								
Description	**Locator**	**nth**	**Action**	**Value**	**Assert**	**Condition**	**Assert Value**	**Stored Value Key**
start loop	locator							key
…test rows goes here…								
end loop	Locator				soft/hard	condition	assert value	

Description: Same as the above but the loop may end prematurely if the end loop assertion fails

Loop Type 3 : end case continuous									Description
Description	**Locator**	**nth**	**Action**	**Value**	**Assert**	**Condition**	**Assert Value**	**Stored Value Key**	The loop can continue endlessly until the end loop assertion fails. The length of element list does not matter in this loop type
start loop	locator							key	
…test rows goes here…									
end loop continuous	locator				soft/hard	condition	assert value		

Step 4: Get the results

There are 5 documents of results that are extracted from the test.

- **Code Progression (code_prog.log)** Logs of the code that is run sequentially due to our test.
- **Logs (logs.log)** Logs of the test run.
- **Sequential Data (data.json)** Data in the form of sequence. We can get the flow of the code using this json along with the retrieved data
- **Reference Data (reference_data.json)** We can obtain all the data retrieved in the form of json
- **Reference Loop Data (ref_loop_data.json)** We can get the data retrived in each loop

- Tasks which require python knowlege are given in this pdf in the Dev sheet
- There are other functionalities and data entry method which will enable user to perform other tasks. The methods of which are given in details in the next sheets.

Details Data Entry

Test Name	Trial	>> (Any text value)
Browser	Chrome	>> (Chrome, Firefox, Edge)
Website	https://www.amazon.in	>> (Complete website url)
Headless	TRUE	>>(TRUE, FALSE)
cdp	TRUE	>>(TRUE, FALSE)
Tech	Playwright,Selenium,Appium	
numprocessess		**Pytest**
verbose		
keyword		
m		
exitfirst		
last-failed		
maxfail		
headed	TRUE	
browser-channel		
browser		
slowmo		
device		
tracing		
screenshot		
video		
full-page-screenshot		
base-url		
output		
template		
report		

Functionality Not Developed Yet

- Declares the name of the Test
- Select a browser
- Website names should be complete with https:// or similar prefix
- Headless testing is a testing which allows the browser to run in the backgroud without GUI.
- cdp is required when we want to work with already logged on browser with wesites which requires login or captcha. Do not support Headless testing

Action Data Entry and Code

Description	Locator	nth	Action	Value	Stored Value Key		URL	File Path	Code
Clicks on an element.	locator	nth	**click**						page.locator(locator).nth(nth).click()
Fills an input element with text.	locator	nth	**fill**	value					page.locator(locator).nth(nth).fill(value)
Presses a specific key or combination of keys.	locator	nth	**press**	value					page.locator(locator).nth(nth).press(value)
Double-clicks on an element.	locator	nth	**double click**						page.locator(locator).nth(nth).double_click()
Sets the focus on an element.	locator	nth	**focus**						page.locator(locator).nth(nth).focus()
Hovers the mouse over an element.	locator	nth	**hover**						page.locator(locator).nth(nth).hover()
Selects a specific option from a select element.	locator	nth	**select option**	value					page.locator(locator).nth(nth).select_option(value)
Selects multiple options from a select element.	locator	nth	**select options**	"value1","value2"					page.locator(locator).nth(nth).select_options(value)
Gets the text content of an element.	locator	nth	**text content**		key				data = page.locator(tr.locator).first.text_content()
Gets the inner text content of an element.	locator	nth	**inner text**		key				data = page.locator(locator).nth(nth).inner_text()
Gets the value of a specified attribute from an element.	locator	nth	**get attribute**		key				data = page.locator(locator).nth(nth).get_attribute(f"{tr.value}")
Checks if a checkbox or radio button is checked.	locator	nth	**is checked**		key				data = page.locator(locator).nth(nth).is_checked()
Checks if an element is disabled.	locator	nth	**is disabled**		key				data = page.locator(locator).nth(nth).is_disabled()
Checks if an element is visible.	locator	nth	**is visible**		key				data = page.locator(locator).nth(nth).is_visible()
Checks if an element is hidden.	locator	nth	**is hidden**		key				data = page.locator(locator).nth(nth).is_hidden()
Checks if an element is enabled.	locator	nth	**is enabled**		key				data = page.locator(locator).nth(nth).is_enabled()
Gets the number of matching elements.	locator	nth	**count**	value	key				data = page.locator(locator).nth(nth).count()
Gets the inner text of all matching elements.	locator	nth	**all inner texts**		key				data = page.locator(locator).nth(nth).all_inner_texts()
Gets the text content of all matching elements.	locator	nth	**all text contents**		key				data = page.locator(locator).nth(nth).all_text_contents()
Opens a link in a new tab.			**open in new tab**				url		new_window = page.context.new_page() new_window.goto(url) new_window.bring_to_front()
Gets the parent tab of a window.			**parent tab**						total_pages = page.context.pages total_pages[0].bring_to_front()
Closes the current tab.			**close tab**						page.close()
In a loop, it navigates to the newly opened tab.			**loop new tab**						
Opens a link.			**open link**				url		page.goto(url)
Takes a screenshot of the entire page.			**page screenshot**					screenshot.png	page.wait_for_load_state("load") page.screenshot(path=f"{logs.directory_path}\\pgscrnsht{time.strftime("%H%M%S")}{tr.filepath}", timeout=100000)
Takes a screenshot of a specific element.	locator	nth	**element screenshot**					screenshot.png	page.wait_for_load_state("load") page.locator(tr.locator).screenshot(path=f"{logs.directory_path}\\elescrnsht{time.strftime("%H%M%S")}{tr.filepath}")
Gets the current URL of the page.	locator	nth	**get page url**		key				data = page.url
Stores the url an row to restart the program incase of failure			**master url**						
Launches a new browser instance an open master url of current page			**fresh browser**						browser = pw.chromium.launch(headless=headless) context = browser.new_context() page = context.new_page() page.goto(master_url)
Create html file which has the links of all the urls from reference dictionary,			**create html**	key(which has the urls from reference dictionary)				url.html	
Selects all matching elements.			**all**						
Stores the value of an element in a variable.			**store**						
Sets the files for a file input element.			**set Input Files**						
Gets the inner HTML content of an element.			**inner HTML**						
Waits for a specific condition to be met.			**wait for**						
Waits for an element to reach a specific state (e.g., visible, hidden, stable).			**wait for element state**						
Takes a screenshot of the page or an element.			**screenshot**						
Gets the bounding box of an element.			**bounding box**						
Combines locators using logical AND.			**and**						
Filters a list of elements based on a condition			**filter**						

Selects the first matching element.	**first**			
Selects the last matching element.	**last**			
Selects the nth matching element.	**nth**			
Selects elements based on their text content.	**with text**			
Checks a checkbox or radio button.	**check**			

Wait Data Entry, Code and Exception Handling

Description	Locator	nth	Assert	Wait(ms)		Code	try/catch
Wait	locator	nth	soft	timeout		page.locator(locator).nth(nth).wait_for(timeout=timeout)	Yes
	locator		soft	timeout		page.wait_for_selector(locator, timeout=timeout)	Yes
	locator	nth		timeout		page.locator(locator).nth(nth).wait_for(timeout=timeout)	No
	locator			timeout		page.wait_for_selector(locator, timeout=timeout)	No
	locator		hard	timeout		print("No explicit waiting can be performed")	No

- The wait function can be merged with Action, Assert, Execute and Loop functions. Further details availiaible in their respective sheets.
- This is not meant to be a standalone function but can be used as such.

Assertion Data Entry and Code

Description	Locator	nth	Assert	Condition	Assert Value	Code
The element is attached to the DOM.	locator	nth	soft/hard	**to be attached**		expect(page.locator(locator).nth(nth),element not present in page/dynamic element).to_be_attached()
The element is checked (for checkboxes or radio buttons).	locator	nth	soft/hard	**to be checked**		expect(page.locator(locator).nth(nth),element not present in page/dynamic element).to_be_checked()
The element is disabled.	locator	nth	soft/hard	**to be disabled**		expect(page.locator(locator).nth(nth),element is not disabled).to_be_disabled()
The element is editable (e.g., input fields).	locator	nth	soft/hard	**to be editable**		expect(page.locator(locator).nth(nth),element is not editable).to_be_editable()
The element's value is empty.	locator	nth	soft/hard	**to be empty**		expect(page.locator(locator).nth(nth),element is not empty).to_be_empty()
The element is enabled (not disabled).	locator	nth	soft/hard	**to be enabled**		expect(page.locator(locator).nth(nth),element is not enabled).to_be_enabled()
The element has focus.	locator	nth	soft/hard	**to be focused**		expect(page.locator(locator).nth(nth),element is not focused).to_be_focused()
The element is hidden (not visible).	locator	nth	soft/hard	**to be hidden**		expect(page.locator(locator).nth(nth),element is not hidden).to_be_hidden()
The element is partially or fully visible within the viewport.	locator	nth	soft/hard	**to be in viewport**		expect(page.locator(locator).nth(nth),element is not in viewport). to_be_in_viewport()
The element is visible.	locator	nth	soft/hard	**to be visible**		expect(page.locator(locator).nth(nth),element is not visible).to_be_visible()
The element contains the specified text.	locator	nth	soft/hard	**to contain text**	partial_text	expect(page.locator(locator).nth(nth),element does not contain text). to_contain_text(assert_value)
The element has an accessible description.	locator	nth	soft/hard	**to have accessible description**	value	expect(page.locator(locator).nth(nth),element does not have accessible description).to_have_accessible_description(assert_value)
The element has an accessible name.	locator	nth	soft/hard	**to have accessible name**	value	expect(page.locator(locator).nth(nth),element does not have accessible name). to_have_accessible_name(assert_value)
The element has the specified attribute.	locator	nth	soft/hard	**to have attribute**	"attribute"," expected_value"	expect(page.locator(locator).nth(nth),element is not empty).to_have_attribute (assert_value)
The element has the specified class.	locator	nth	soft/hard	**to have class**	class	expect(page.locator(locator).nth(nth),element does not have class). to_have_class(assert_value)
The locator matches the specified number of elements.	locator	nth	soft/hard	**to have count**	count	expect(page.locator(locator).nth(nth),element does not have count). to_have_count(assert_value)
The element has the specified CSS property.	locator	nth	soft/hard	**to have css**	css	expect(page.locator(locator).nth(nth),element does not have css).to_have_css (assert_value)
The element has the specified ID.	locator	nth	soft/hard	**to have id**	id	expect(page.locator(locator).nth(nth),element does not have id).to_have_id (assert_value)
The element has the specified JavaScript property.	locator	nth	soft/hard	**to have js property**	"property"," expected_value"	expect(page.locator(locator).nth(nth),element does not have the js properties). to_have_js_property(assert_value)
The element has the specified ARIA role.	locator	nth	soft/hard	**to have role**	role	expect(page.locator(locator).nth(nth),element does not have the role). to_have_role(assert_value)
The element contains text.	locator	nth	soft/hard	**to have text**	text	expect(page.locator(locator).nth(nth),element does not have the text). to_have_text(assert_value)
The element has the specified value.	locator	nth	soft/hard	**to have value**	value	expect(page.locator(locator).nth(nth),element does not have the value). to_have_value(assert_value)
The element has multiple values (e.g., for select elements).	locator	nth	soft/hard	**to have values**	"value1","value2"	expect(page.locator(locator).nth(nth),element do not have the values). to_have_values([assert_value])
The element has the specified title attribute.			soft/hard	**to have title**	title	expect(page,page does not have title).to_have_title(assert_value)
The element has the specified URL (e.g., for links).			soft/hard	**to have url**	url	expect(page,page does not have url).to_have_url(assert_value)
The page load was successful and there are no errors.	locator	nth	soft/hard	**to be ok**		expect(page.locator(locator).nth(nth),element is not ok).to_be_ok()
The element is not attached to the DOM.	locator	nth	soft/hard	**not to be attached**		expect(page.locator(locator).nth(nth),element is present in page/dynamic element).not_to_be_attached()
The element is not checked (for checkboxes or radio buttons).	locator	nth	soft/hard	**not to be checked**		expect(page.locator(locator).nth(nth),element is checked).not_to_be_checked()
The element is not disabled.	locator	nth	soft/hard	**not to be disabled**		expect(page.locator(locator).nth(nth),element is disabled).not_to_be_disabled()
The element is not editable (e. g., input fields).	locator	nth	soft/hard	**not to be editable**		expect(page.locator(locator).nth(nth),element is editable).not_to_be_editable()
The element's value is not empty.	locator	nth	soft/hard	**not to be empty**		expect(page.locator(locator).nth(nth),element is empty).not_to_be_empty()
The element is not enabled (disabled).	locator	nth	soft/hard	**not to be enabled**		expect(page.locator(locator).nth(nth),element is enabled).not_to_be_enabled()
The element does not have focus.	locator	nth	soft/hard	**not to be focused**		expect(page.locator(locator).nth(nth),element is focused).not_to_be_focused()
The element is not hidden (visible).	locator	nth	soft/hard	**not to be hidden**		expect(page.locator(locator).nth(nth),element is hidden).not_to_be_hidden()
The element is not partially or fully visible within the viewport.	locator	nth	soft/hard	**not to be in viewport**		expect(page.locator(locator).nth(nth),element is in viewport). not_to_be_in_viewport()
The element is not visible.	locator	nth	soft/hard	**not to be visible**		expect(page.locator(locator).nth(nth),element is visible).not_to_be_visible()
The element does not contain the specified text.	locator	nth	soft/hard	**not to contain text**	partial_text	expect(page.locator(locator).nth(nth),element contains text). not_to_contain_text(assert_value)
The element does not have an accessible description.	locator	nth	soft/hard	**not to have accessible description**	value	expect(page.locator(locator).nth(nth),element has accessible description). not_to_have_accessible_description(assert_value)
The element does not have an accessible name.	locator	nth	soft/hard	**not to have accessible name**	value	expect(page.locator(locator).nth(nth),element has accessible name). not_to_have_accessible_name(assert_value)
The element does not have the specified attribute.	locator	nth	soft/hard	**not to have attribute**	"attribute"," expected_value"	expect(page.locator(locator).nth(nth),element has attribute). not_to_have_attribute(assert_value)
The element does not have the specified class.	locator	nth	soft/hard	**not to have class**	class	expect(page.locator(locator).nth(nth),element has class).not_to_have_class (assert_value)
The locator does not match the specified number of elements.	locator	nth	soft/hard	**not to have count**	count	expect(page.locator(locator).nth(nth),element has count).not_to_have_count (assert_value)

The element does not have the specified CSS property.	locator	nth	soft/hard	**not to have css**	css		expect(page.locator(locator).nth(nth),element has css).not_to_have_css (assert_value)
The element does not have the specified ID.	locator	nth	soft/hard	**not to have id**	id		expect(page.locator(locator).nth(nth),element has id).not_to_have_id (assert_value)
The element does not have the specified JavaScript property.	locator	nth	soft/hard	**not to have js property**	"property"," expected_value"		expect(page.locator(locator).nth(nth),element has the js properties). not_to_have_js_property(assert_value)
The element does not have the specified ARIA role.	locator	nth	soft/hard	**not to have role**	role		expect(page.locator(locator).nth(nth),element has the role).not_to_have_role (assert_value)
The element does not contain text.	locator	nth	soft/hard	**not to have text**	text		expect(page.locator(locator).nth(nth),element has the text).not_to_have_text (assert_value)
The element does not have the specified value.	locator	nth	soft/hard	**not to have value**	value		expect(page.locator(locator).nth(nth),element has value).not_to_have_value (assert_value)
The element does not have multiple values (e.g., for select elements).	locator	nth	soft/hard	**not to have values**	"value1","value2"		expect(page.locator(locator).nth(nth),element has values).not_to_have_values ([assert_value])
The element does not have the specified title attribute.			soft/hard	**not to have title**	title		expect(page,page has title).not_to_have_title(assert_value)
The element does not have the specified URL (e.g., for links).			soft/hard	**not to have url**	url		expect(page,page has url).not_to_have_url(assert_value)
The page load was not successful or there are errors.	locator	nth	soft/hard	**not to be ok**			expect(page.locator(locator).nth(nth),element is ok).not_to_be_ok()

Loop Structure and Data Entry

Loop Type 1 : Simple Loop

Description	Locator	nth	Action	Value	Assert	Condition	Assert Value	Stored Value Key	Wait(ms)
start loop	locator							key	
				…test rows goes here…					
end loop									

Description: This is a simple loop. The loop will iterate through all the elements in the element list created through the given locator. The key is given to store loop data in the reference loop dictionary and data dictionary.

Loop Type 2 : end case

Description	Locator	nth	Action	Value	Assert	Condition	Assert Value	Stored Value Key	Wait(ms)
start loop	locator							key	
				…test rows goes here…					
end loop	Locator				soft/hard	condition	assert value		

Description: Same as the above but the loop may end prematurely if the end loop assertion fails

Loop Type 3 : end case continuous

Description	Locator	nth	Action	Value	Assert	Condition	Assert Value	Stored Value Key	Wait(ms)
start loop	locator							key	
				…test rows goes here…					
end loop contin	Locator				soft/hard	condition	assert value		

Description: The loop can continue endlessly until the end loop assertion fails. The length of element list does not matter in this loop type

Execute and Conditional Statement Data Entry Flow

ement	Description	Execute	Locator	nth	Action	Value	Assert	Condition	Assert Value	red Value	Wait(ms)	URL	File Path	Conditonal Key	Conditional Statement dictionary: dict ={}
1		page.get_by_title("Search in").select_option(													
2	Enter Searcl		//input[@id-		fill	Smartph					30000				
3	Click Search		//input[@id-		click						15000				
4		time.sleep(5)													
5	start loop 1		.s-paginatior							list	10000				
6					master u										
7	start loop 2:		//span[@cla							product					
8	Goes to the				loop new										
9		page.wait_for_load_state('load')													
10	PAGE URL				get page					url					
11	PRODUCT N		#productTitl		text cont		soft	to be attac		title	30000			title	
12	RATING		#acrCustome		text cont		soft	to be attac		rating	30000				
13		page.wait_for_selector("//span[3]/span[2]/sp					soft								
14	PRICE		//div[1]/div[		text cont		soft	to be visib		price	30000				
15	FEATURE		#feature-bul		all inner t		soft	to be visib		feature	1000				
16	TECH		#tech		all inner t		soft	to be visib		tech	1000				"iphone" in dictionary ["title"].lower()
17	PRODUCT D		#prodDetails		all inner t		soft	to be visib		product_d	1000				
18	Close the cu				close tab										
19	end loop 2														
20	Click on the		.s-paginatior		click						20000				
21	end loop 1:		.s-paginatior				soft	not to hav	"aria-disab		20000				
		>>>>					>>>>>>							>>>>	>>>>
		This block run the exec() in python. I can run any code and it becomes the responsibility of the user to write the code correctly. Although I use this primarily for wait sequencies, this might help in giving the application extreme flexibility.					soft/hard							This block stores the data in from action function in dictionary: dict. When in a loop, the key refreshes in every run and it becomes the responsibililty of the user to check the correct test row to access it.	This can run any conditional statement. Incase of a false value, the test row won't execute. This can access the dictionary: dict using the conditional key. While in a loop, the conditional

Description	Locator	nth	Action	Value	Assert	Condition	Assert Value	Stored Value Key	Wait(ms)	URL	File Path
start loop			click		Hard	to be attached					
end loop			fill	value	Soft	to be checked					
end loop continous			press	value	hard	to be disabled					
			double click		soft	to be editable					
			focus			to be empty					
			hover			to be enabled					
			select option	value		to be focused					
			select options	"value1","value2"		to be hidden					
			text content			to be in viewport		key			
			inner text			to be visible		key			
			get attribute			to contain text	partial_text	key			
			is checked			to have accessible description	value	key			
			is disabled			to have accessible name	value	key			
			is visible			to have attribute	"attribute", "expected_value"	key			
			is hidden			to have class	class	key			
			is enabled			to have count	count	key			
			count	value		to have css	css	key			
			all inner texts			to have id	id	key			
			all text contents			to have js property	"property", "expected_value"	key			
			open in new tab			to have role	role			url	
			parent tab			to have text	text				
			close tab			to have value	value				
			loop new tab			to have values	"value1","value2"				
			open link			to have title	title			url	
			page screenshot			to have url	url				screenshot.png
			element screenshot			to be ok					screenshot.png
			get page url			not to be attached		key			
			master url			not to be checked					
			fresh browser			not to be disabled					
			create html	key(which has the urls fi		not to be editable					url.html
			all			not to be empty					
			store			not to be enabled					
			set Input Files			not to be focused					
			inner HTML			not to be hidden					
			wait for			not to be in viewport					
			wait for element state			not to be visible					
			screenshot			not to contain text	partial_text				
			bounding box			not to have accessible descripti	value				
			and			not to have accessible name	value				
			filter			not to have attribute	"attribute", "expected_value"				
			first			not to have class	class				
			last			not to have count	count				
			nth			not to have css	css				
			with text			not to have id	id				
			check			not to have js property	"property", "expected_value"				
						not to have role	role				
						not to have text	text				
						not to have value	value				
						not to have values	"value1", "value2"				
						not to have title	title				
						not to have url	url				
						not to be ok					