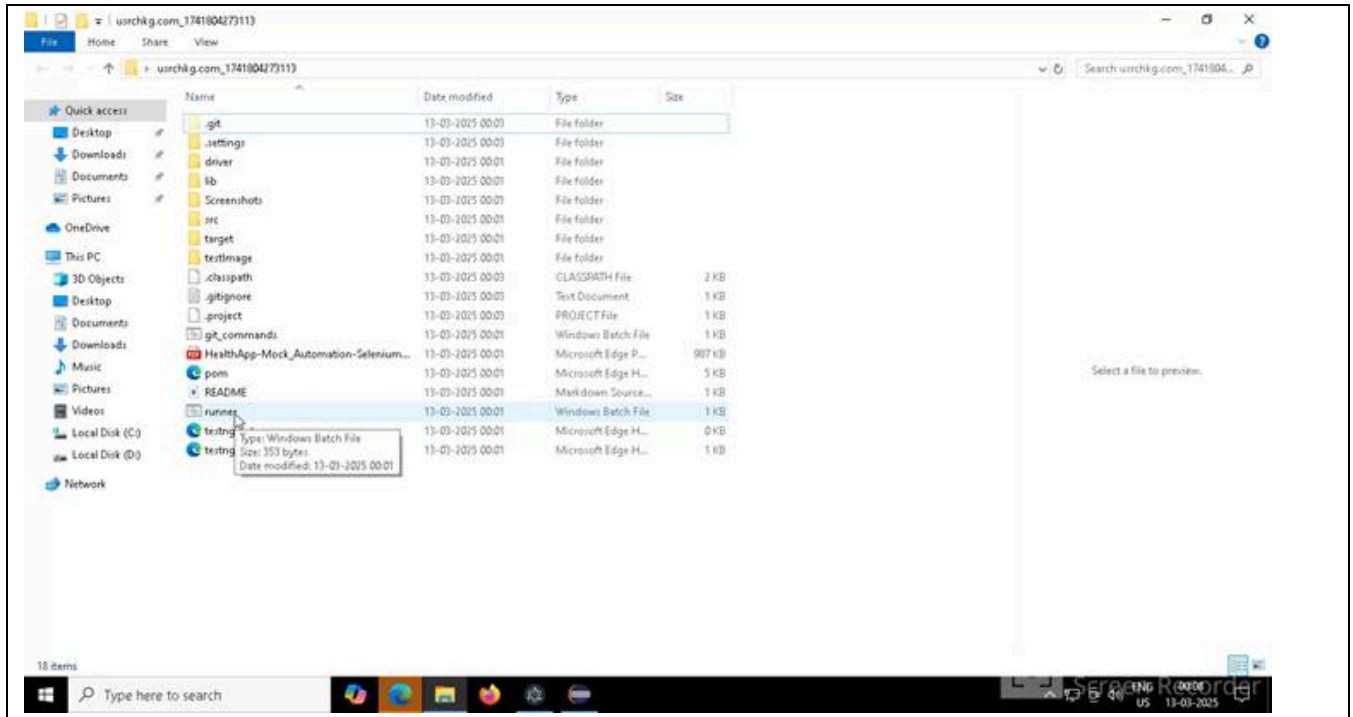


# HealthApp Automation Using C# and Selenium

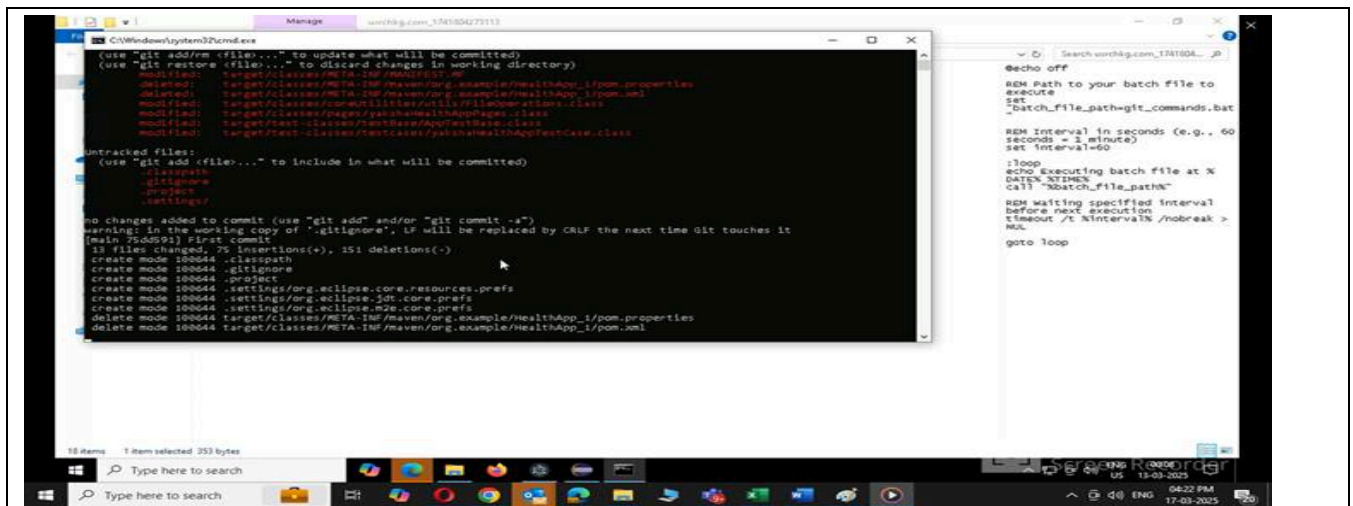
## VM-DotNet\_PL1-1 (15 TCs)

Pre-requisite:

Before you start working on your project, execute the runner file present in your project folder (Simply by double clicking). **This is mandatory.**

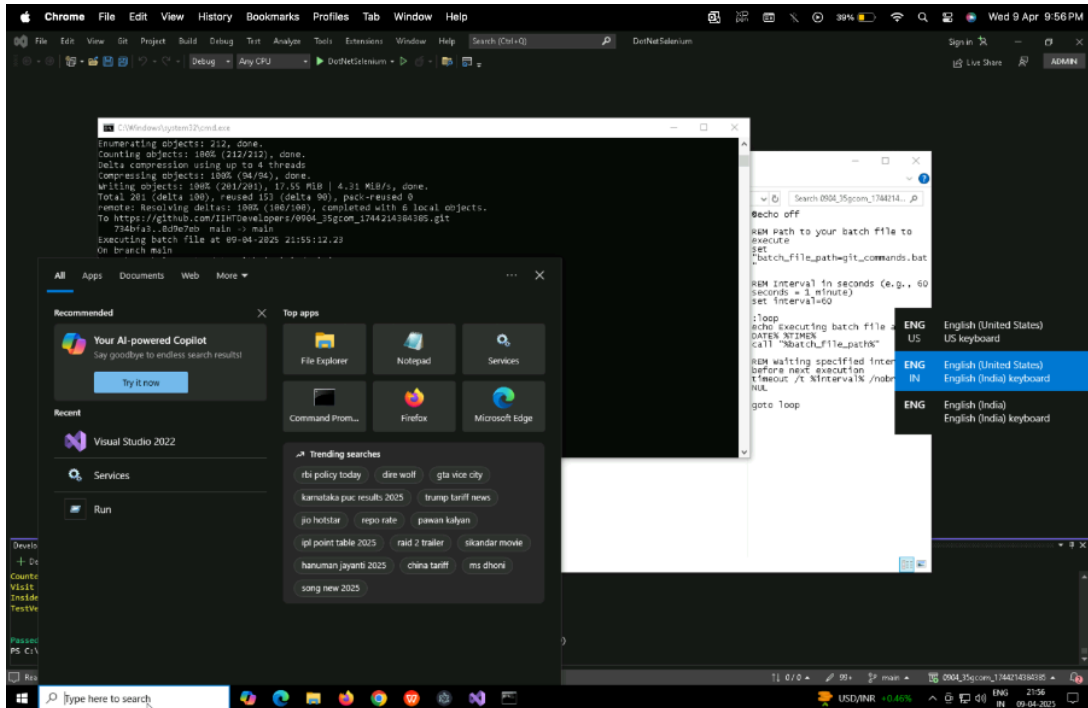


This will launch a command terminal for you where it will keep on pushing your updated code to GIT on regular intervals. Keep that command terminal open at backend and you can continue working on your project.

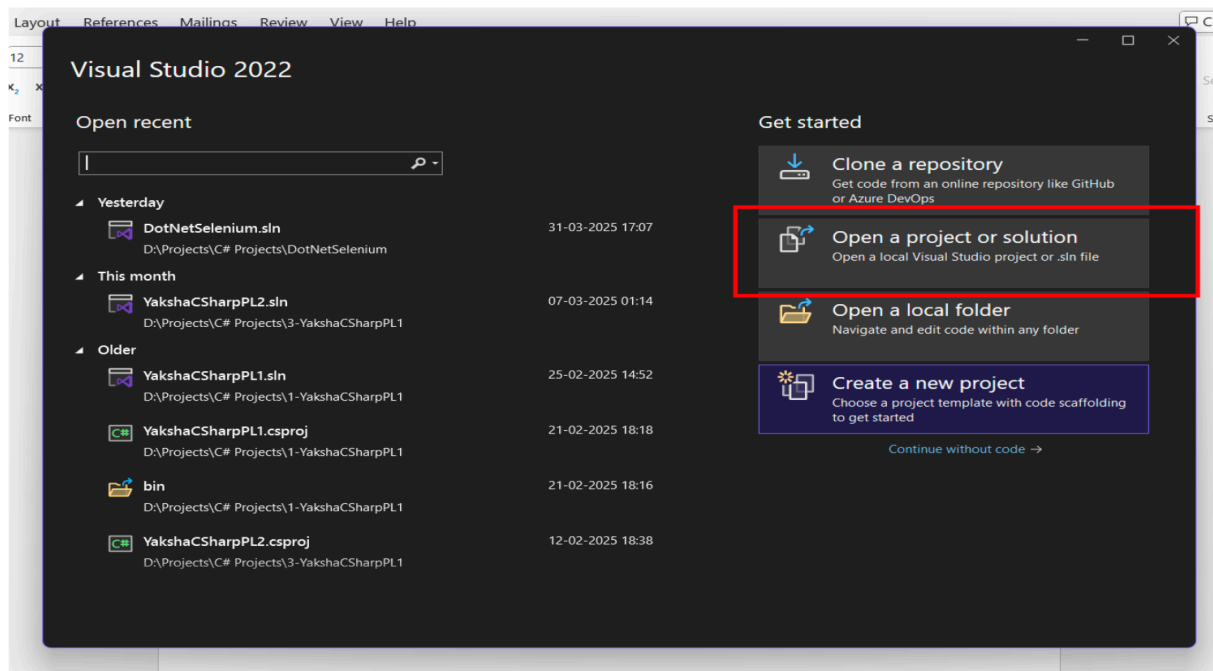


As soon as you import the project into Visual Studio 2022, Please follow the below steps:

1. Open the Visual Studio code.



2. Open Your C# Selenium Project
  - a. Launch Visual Studio.
  - b. Open your Selenium automation project (.sln file).



### Template Code Structure:

- a. The packages and files you will be required to work on are listed in the table below.
- b. Other Files and packages you can ignore.
- c. In other Files and packages do not make any changes. It would affect your evaluation.
- d. You are not required to work in the “TestCases” Folder. Files there are non-editable. Editing those files and trying to save them will throw errors and would affect your evaluation.

Package	Class/File	Description
/DotNetSelenium/Utilities/	JsonReader.cs	<b>The method for reading data as input from an JSON file has already been implemented here.</b> <b>This method is used to fetch the required data from JSON including the URL for navigation.</b>
/DotNetSelenium/PageObjects	AdminPage.cs ADTPage.cs AppointmentPage.cs DoctorPage.cs IncentivePage.cs LoginPage.cs OperationTheatrePage.cs PatientPage.cs ProcurementPage.cs SettingsPage.cs SubstorePage.cs UtilitiesPage.cs  (Each file has the TestCase function in templated form here, You need to write the required logic and xpath into it.)	<ol style="list-style-type: none"> <li>1. All core activities (mentioned in the list above) are to be performed here.</li> <li>2. The comments associated with each templated method here describe the expectation.</li> <li>3. You can define locators and xpath here.</li> <li>4. Declare any variable/object you need to share data/status between different methods.</li> <li>5. Do not modify the signature of methods declared here.</li> <li>6. You can create additional supportive common methods if required.</li> </ol>
/DotNetSelenium/TestData	LoginData.json PatientName.json	Contains data for login and to fill in the form.
	Testng.xml	Execution needs to kick-started from TestNG xml

## PROBLEM STATEMENT

We need to automate the following activities using Selenium + C#.

Before the execution of any test steps, user must be logged in to the health app.

## Key Activities to implement:

#	Summary	Action	Expected Result
1	AppointmentPage.cs =====	Steps: <ul style="list-style-type: none"><li>Clicks on the Appointment link and selects the first available counter item (if present).</li><li>Navigates to the Appointment Booking List page.</li><li>Selects "New Patient" from the Visit Type dropdown.</li><li>Sets the From Date to "01-01-2024" to filter results.</li><li>Clicks the "Show Patient" button to retrieve appointment data.</li><li>Validates that the Visit Type column displays only "New Visit" entries.</li></ul>	returns True if all entries in the Visit Type column contain "New"; otherwise, returns false.
2	OperationTheatrePage.cs =====	Steps: <ul style="list-style-type: none"><li>Navigates to the Operation Theatre module.</li><li>Clicks on the "New OT Booking" button to open the booking modal.</li><li>Validates that the OT booking modal is displayed.</li><li>Clicks the "Add New OT" button without selecting a patient.</li><li>Waits for the browser alert and captures the alert message.</li><li>Accepts the alert to close it.</li></ul>	returns : The text of the alert message shown when no patient is selected during OT booking.
3	DoctorPage.cs =====	Steps: <ul style="list-style-type: none"><li>Reads the patient name from a JSON test data file.</li><li>Clicks on the Doctor module and navigates to the In-Patient tab.</li><li>Locates the appropriate search box and enters the patient name.</li><li>Waits briefly and clicks the preview icon from the Actions column.</li><li>Retrieves and returns the patient name heading from the overview page for validation.</li></ul>	returns The patient name displayed on the overview page, converted to lowercase and trimmed.
4	DoctorPage.cs =====	Steps: <ul style="list-style-type: none"><li>Reads the patient name from the JSON test data file.</li><li>Navigates to the Doctor module and selects the In-Patient tab.</li><li>Searches for the patient by name and opens their preview page.</li><li>Navigates to the Notes section and clicks the Add Notes button.</li></ul>	returns The text of the success confirmation popup after saving the note.

		<ul style="list-style-type: none"> <li>• Selects "Progress Note" as the note type and template.</li> <li>• Enters a sample subjective note in the input field.</li> <li>• Saves the note and verifies the success confirmation message.</li> </ul>	
5	ProcurementPage.cs ===== <p>This method navigates to the Purchase Request page, accesses the Currency Settings, adds a new currency with a unique code and description, and verifies that the new currency is successfully added to the table.</p>	Steps: <ul style="list-style-type: none"> <li>• Click on the "Procurement" link to open the procurement module.</li> <li>• Navigate to the "Settings" tab and then to the "Currency" sub-tab.</li> <li>• Click the "Add Currency" button to open the currency input form.</li> <li>• Enter a unique currency code and a test description.</li> <li>• Click the "Add Currency" button to submit the form.</li> <li>• Use the search bar to find the newly added currency.</li> <li>• Verify that the currency appears in the table with the correct code.</li> </ul>	The new currency should be added successfully and displayed in the table with the correct currency code and description. returns True if the currency is added and visible in the table; otherwise false.
6	UtilitiesPage.cs ===== <p>This method verifies that a warning popup is displayed when attempting to save a new Scheme Refund entry without filling any mandatory fields.</p>	Steps: <ul style="list-style-type: none"> <li>• Click on the "Utilities" link.</li> <li>• Navigate to the "Scheme Refund" tab.</li> <li>• If any counter items are available, select the first one.</li> <li>• Click on "New Scheme Refund Entry".</li> <li>• Click the "Save" button without entering any data.</li> <li>• Capture and return the warning message displayed in the popup.</li> </ul>	A warning message should be displayed indicating that mandatory fields must be filled before submission.
7	AdminPage.cs ===== <p>Navigates to the "User Profile" page via the Admin dropdown and verifies successful navigation.</p>	Steps: <ul style="list-style-type: none"> <li>• Clicks on the Admin dropdown in the header.</li> <li>• Selects the "My Profile" option from the dropdown menu.</li> <li>• Waits for the User Profile page to load.</li> <li>• Retrieves and returns the header text of the User Profile page for validation.</li> </ul>	The header text from the User Profile page, used to assert successful navigation.
8	PatientPage.cs ===== <p>This method uploads a profile picture for a patient by navigating to the "Register Patient" tab and completing the image upload workflow.</p>	Steps: <ul style="list-style-type: none"> <li>• Click on the "Patient" link from the navigation menu.</li> <li>• Select the "Register Patient" tab to open the registration section.</li> <li>• Click on the profile picture icon followed by the "New Photo" button.</li> <li>• Upload a test image from the predefined directory.</li> <li>• Wait for the image to upload and click the "Done" button to finalize.</li> <li>• Verify that the uploaded image is displayed on the UI.</li> </ul>	The uploaded profile image should be visible on the patient registration screen, confirming success. Verify that it returns True if the image is displayed after upload otherwise, throws an exception.
9	IncentivePage.cs ===== <p>Edits the TDS percentage for a specific employee and verifies that the updated value is reflected in the UI.</p>	Steps: <ul style="list-style-type: none"> <li>• Reads the employee name from a JSON test data file.</li> <li>• Navigates to the Incentive module and selects the Settings tab.</li> <li>• Searches for the employee using the search bar.</li> <li>• Clicks the "Edit TDS%" button to open the TDS input modal.</li> <li>• Clears the existing value and enters a new random TDS percentage.</li> </ul>	Returns true if the updated TDS percentage is correctly reflected; otherwise, throws an exception.

		<ul style="list-style-type: none"> <li>• Clicks the "Update TDS" button to save changes.</li> <li>• Repeats the search and retrieves the updated TDS value from the table.</li> <li>• Verifies that the displayed TDS value matches the newly entered value.</li> </ul>	
10	SettingsPage.cs ===== <p>This method disables and then re-enables a price category (e.g., "NHIF-1") via the Price Category tab, verifying that appropriate success messages are displayed for both actions.</p>	Steps: <ul style="list-style-type: none"> <li>• Click on the "Settings" link to navigate to the settings module.</li> <li>• Click on the "More..." dropdown and select the "Price Category" tab.</li> <li>• Click on the "Disable" button for the code "NHIF-1".</li> <li>• Verify that the message "Deactivated." appears after disabling.</li> <li>• Click on the "Enable" button for the same code.</li> <li>• Verify that the message "Activated." appears after enabling.</li> </ul>	Verify that Success messages "Deactivated." and "Activated." should be displayed after each corresponding action.
11	SubstorePage.cs ===== <p>This method verifies that the user is able to successfully navigate through the various submodules under the "Substore" section such as Inventory Requisition, Consumption, Reports, Patient Consumption, and Return.</p>	Steps: <ul style="list-style-type: none"> <li>• Click on the "Substore" link.</li> <li>• Select the appropriate substore.</li> <li>• Navigate to "Inventory Requisition" and verify URL.</li> <li>• Navigate to "Consumption" and verify URL.</li> <li>• Navigate to "Reports" and verify URL.</li> <li>• Navigate to "Patient Consumption" and verify URL.</li> <li>• Navigate to "Return" and verify URL.</li> </ul>	The user should be navigated to the correct URL for each submodule indicating successful navigation. Returns true if navigation to all submodules is successful
12	SubstorePage.cs ===== <p>This method verifies the tooltip text that appears when hovering over the cursor icon in the "Inventory" tab of the Substore module.</p>	Steps: <ul style="list-style-type: none"> <li>• Click on the "Substore" link.</li> <li>• Select a substore.</li> <li>• Navigate to the "Inventory" tab.</li> <li>• Hover over the cursor icon using Actions class.</li> <li>• Capture and verify the tooltip text matches the expected value.</li> </ul>	Tooltip text should display: "To change, you can always click here." Returns the tooltip text if it matches the expected message
13	SubstorePage.cs ===== <p>This method navigates to the Inventory Requisition section under the Substore module, captures a screenshot of the current page, and saves it to the "screenshots" folder with a timestamp in the filename.</p>	Steps: <ul style="list-style-type: none"> <li>• Click on the "Substore" link.</li> <li>• Select a substore from the dropdown.</li> <li>• Click on the "Inventory" tab.</li> <li>• Click on "Inventory Requisition".</li> <li>• Verify successful navigation to the Inventory Requisition page.</li> <li>• Capture and save a screenshot with a timestamped filename.</li> </ul>	A screenshot of the Inventory Requisition page is captured and saved successfully.
14	ADTPage.cs ===== <p>Attempts to update a patient's doctor without selecting one and verifies that the appropriate validation message is shown.</p>	Steps: <ul style="list-style-type: none"> <li>• Reads a test patient name from a JSON file.</li> <li>• Navigates to the ADT section and selects the first available counter item.</li> <li>• Opens the "Admitted Patients" tab and searches for the patient.</li> <li>• Opens the "Change Doctor" modal using the More Options ("...") button.</li> <li>• Clicks the "Update" button without selecting a doctor from the list.</li> <li>• Verifies that the error message "Select doctor from the list." is displayed.</li> </ul>	True if the error message is displayed; otherwise, throws an exception.

15	LoginPage.cs ===== Clicks the logout option from the Admin dropdown and verifies if the user is redirected to the login page.	<b>Steps:</b> <ul style="list-style-type: none"> <li>• Clicks on the Admin dropdown menu.</li> <li>• Selects the "Logout" option to initiate logout.</li> <li>• Waits for the login page to appear by checking the presence of the login button.</li> <li>• Logs the result and handles any exceptions that occur during the process.</li> </ul>	returns : True if the login button is displayed, indicating successful logout; otherwise, throws an exception.
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**NOTE:** "Please do not delete any file in the project folder. But you are free to add any other files if required".

### Expectations:

- 1) Learners should write automation scripts using C# and Selenium to automate all the steps in the above question. In other words, the automation script should perform all the mentioned steps.
- 2) Learners should not use any tools to create the xpath. They should develop the xpath/cssselector on their own.

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## IMPLEMENTATION/FUNCTIONAL REQUIREMENT

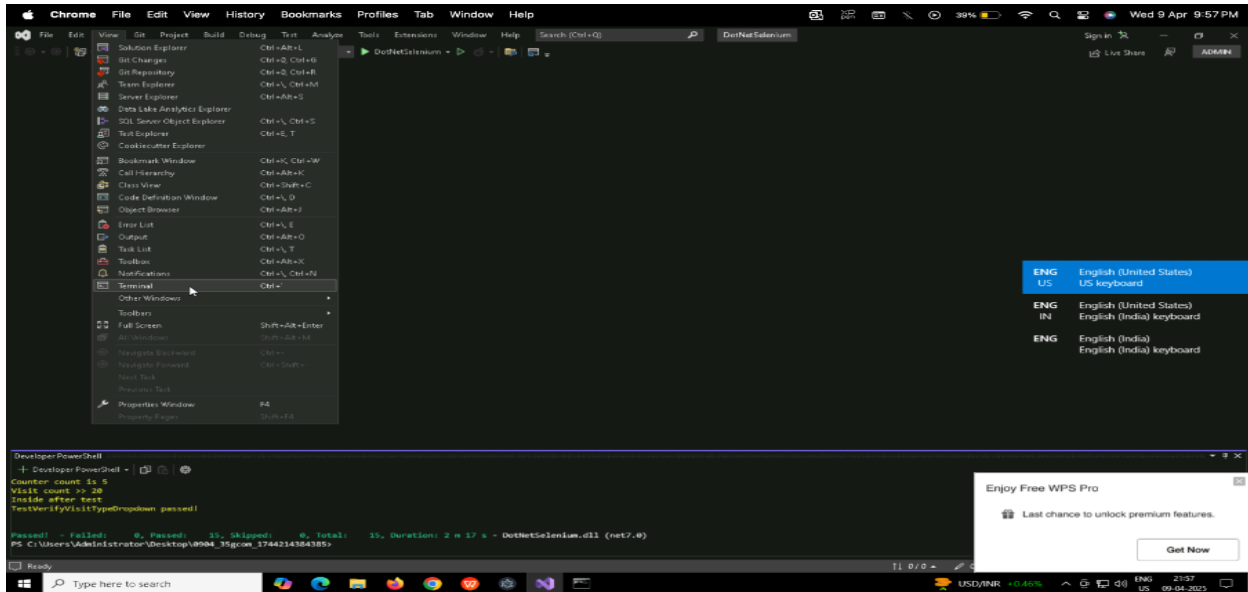
### 1.1 CODE QUALITY/OPTIMIZATIONS

1. Associates should have written clean code that is readable.
2. Associates need to follow SOLID programming principles.

### EXECUTION STEPS TO FOLLOW

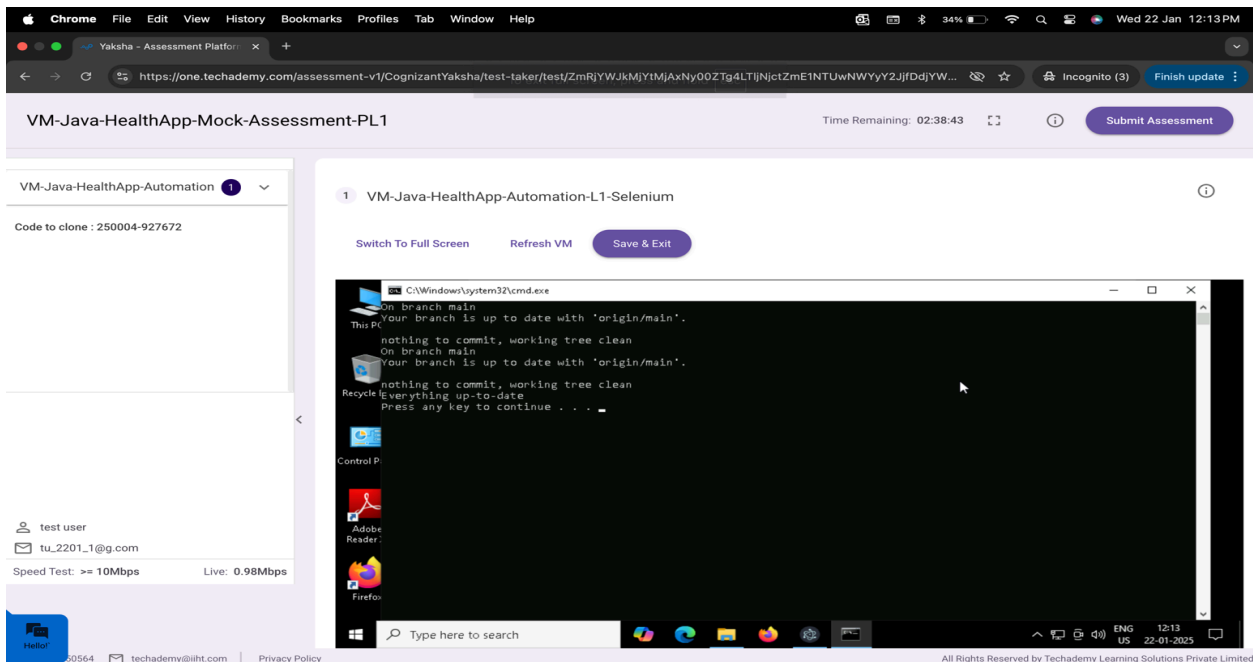
1. You are mandatory required to run test cases for applications before final submission. Without this, the project evaluation will not happen.
2. You can launch test cases any time as follows:go to View menu and open a new terminal window.





3. Use the following commands :
  - a. Dotnet clean ( to clean the project)
  - b. Dotnet build (to build the project with latest changes)
  - c. Dotnet test (to execute the test cases )

4. To do the final submission of the assessment :
  - a. Press escape to come out of Fullscreen mode.
  - b. Submit the assessment.



After the successful submission of the assessment, you will get a confirmation message displayed on

your screen.

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All the Best

