SIMPLI LEARN

“PHASE-4 PROJECT REPORT”

.NET Application Testing and Deployment

“JOE’S PIZZA”

Submitted by

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Dover India Private Limited

OCT 19, 2021

ACKNOWLEDGEMENT

I express my sincere thanks and gratitude to the **SIMPLILEARN** platform for providing us an opportunity to learn all the required technologies, also grateful to our guide **Kiran** for the valuable guidance, encouragement and for extending all the possible help the learning phase.

DECLARATION

I Tejaswi.B employee of Dover India hereby declare that project is an original work done by me and not related to any other external works.

Tejaswi.B

19th October 2021

REPORT CONTENTS:

1. Problem Statement
2. Problem Logic
3. Results

1. PROBLEM STATEMENT

Build an ASP.NET website comprising of the following three pages:

Pizza selection page

Order checkout page

Order confirmation page

Create test suites to test the pages for end-user testing.

Background of the problem statement:

Joe's Pizza has created the UI for an online ordering portal. They want the pages to be properly tested with a testing framework using NUnit, Selenium and Specflow. The prototype will then be deployed via Jenkins to an Azure VM at scheduled intervals.

You must use the following:

Visual Studio ASP.NET Core Project, NUnit, Selenium, SpecFlow, Jenkins, Windows Azure

You have been hired to perform the following tasks:

Create an ASP.NET Core web application containing three cshtml pages:

A Pizza selection page which will allow users to choose which type of pizza they want to order.

An Order Checkout page which will show the selected pizza with quantity and pricing. Clicking on Checkout will take them to the confirmation page.

Order Confirmation page which will display a message with an order id, amount and the type of pizza that is ordered.

Create a Windows Class Library project.

Add a project reference to the first project.

Configure NUnit, Selenium and Specflow.

Write test cases to test the web app.

Run the test cases using Test Runner.

Create an Azure VM for hosting the prototype app.

Set up Jenkins to create a build at scheduled intervals in the day and deploy it to Azure.

2. PROBLEM LOGIC

1. Using MVC Pattern, Create a Model Class, describe the parameters of the Pizza such as ID, Name,Size,Description and Price. Create a Business Object Class named PizzaBO and create a List of some Pizzas with reference to the Model Class. Also describe methods to return all pizzas in the list, to return pizza with Id and Name.

2. Create a Controller Class with 3 Views corresponding to Order, Details, Index methods .

3. After Testing the above Logic, select another project with NUnit Testing Template and Here declaring some random 3 tests to check with the results, I have intentionally made 1 test to fail and other 2 tests succeed and view the test results on the test explorer.

4. Using Chrome driver to work with Selenium, create another project (ConsoleApp) under the same solution and install dependencies such as Selenium driver. Use threading operation to visualize the flow and see the output on the console window with exit code 0.

5. Install the Java 8 ,Dotnet ,Git and Jenkins on the VM created using Azure pass provided by the SimpliLearn.Install all the plugins on Jenkins and create a new job and configure it through git. Set environment variables(java,git) on the local machine and verify before starting the configuration of the job ,Observe the Console Output with Status message :Success

6. Create a RG, App Service and select the appropriate subscription on the Visual Studio or through Azure Login and integrate the project to publish it online.

3. RESULTS WITH SCREENSHOTS

Snapshots of the working with explanation

3.1 Dashboard page

Page that contain products.

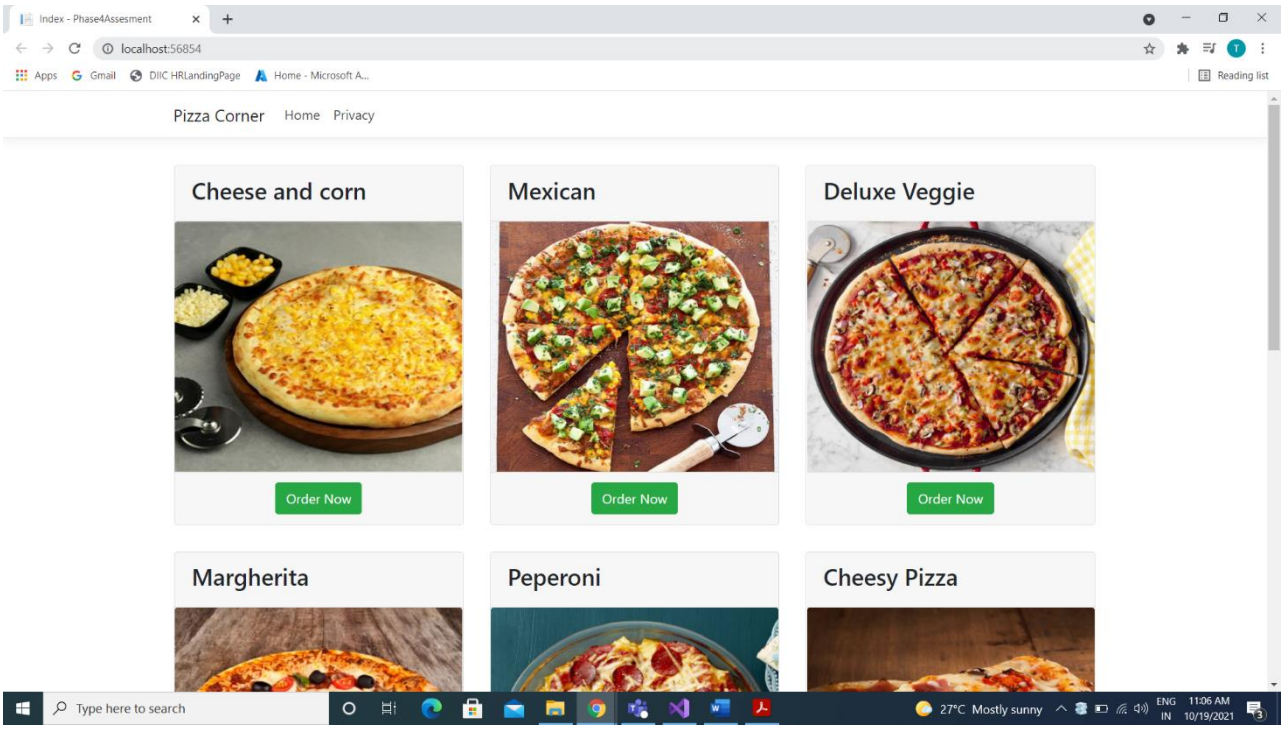


Figure 1: Dashboard page

3.3. Details Page

Displaying product details

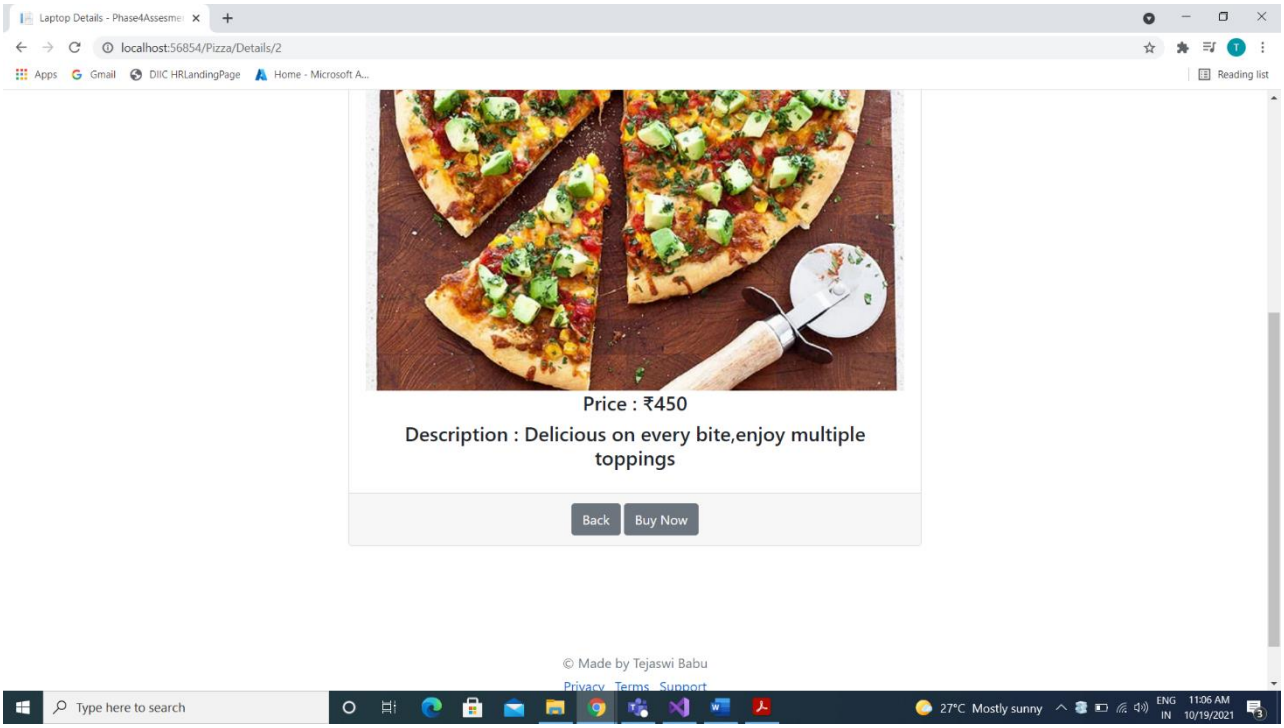


Figure 2: Details page

3.3. Success Page

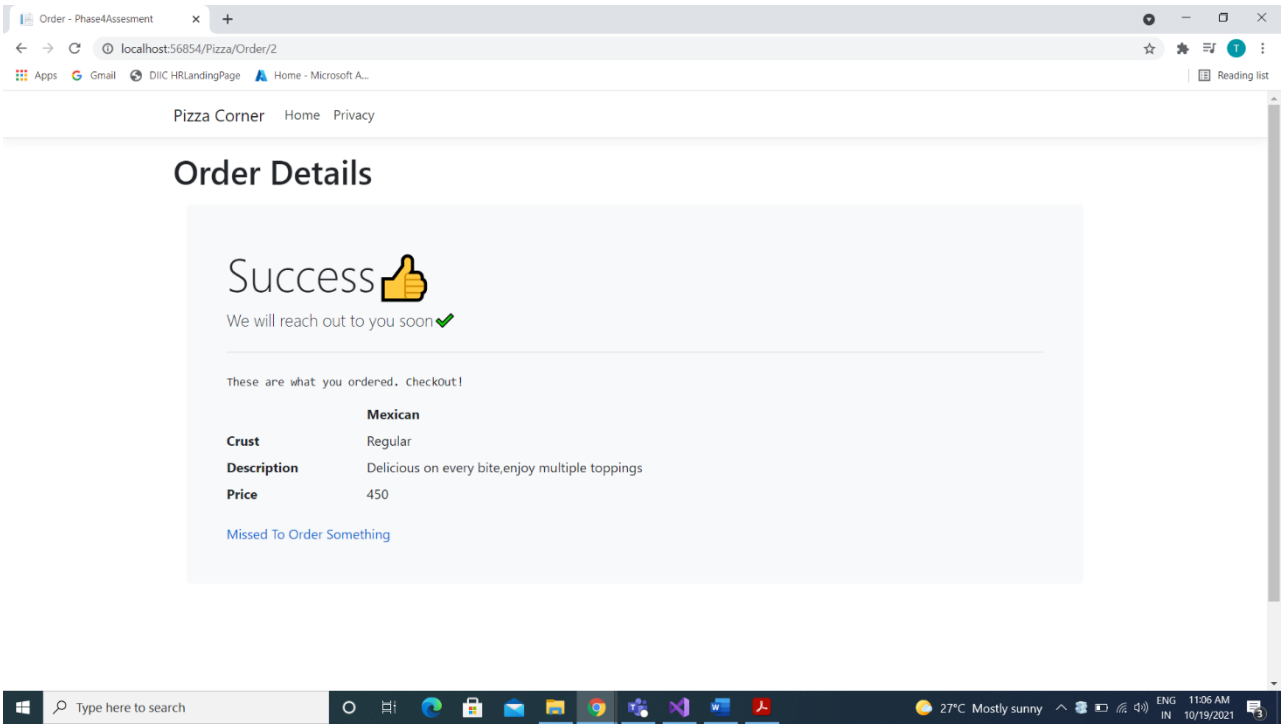
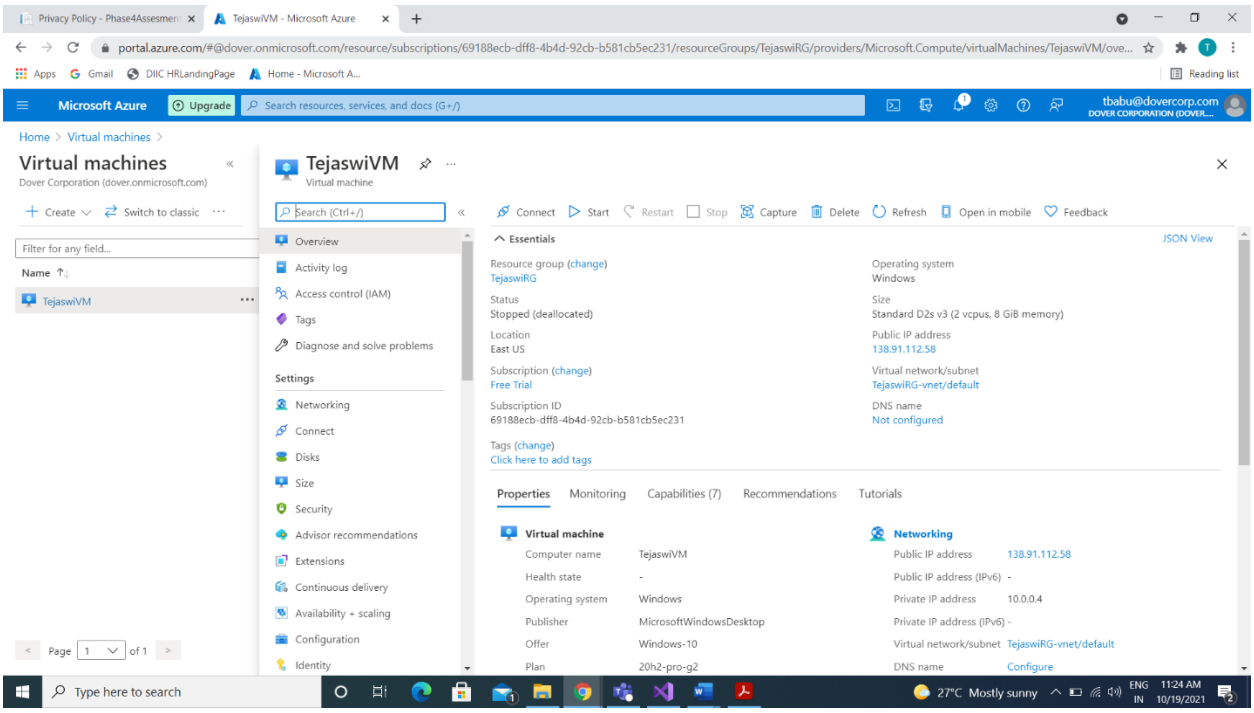
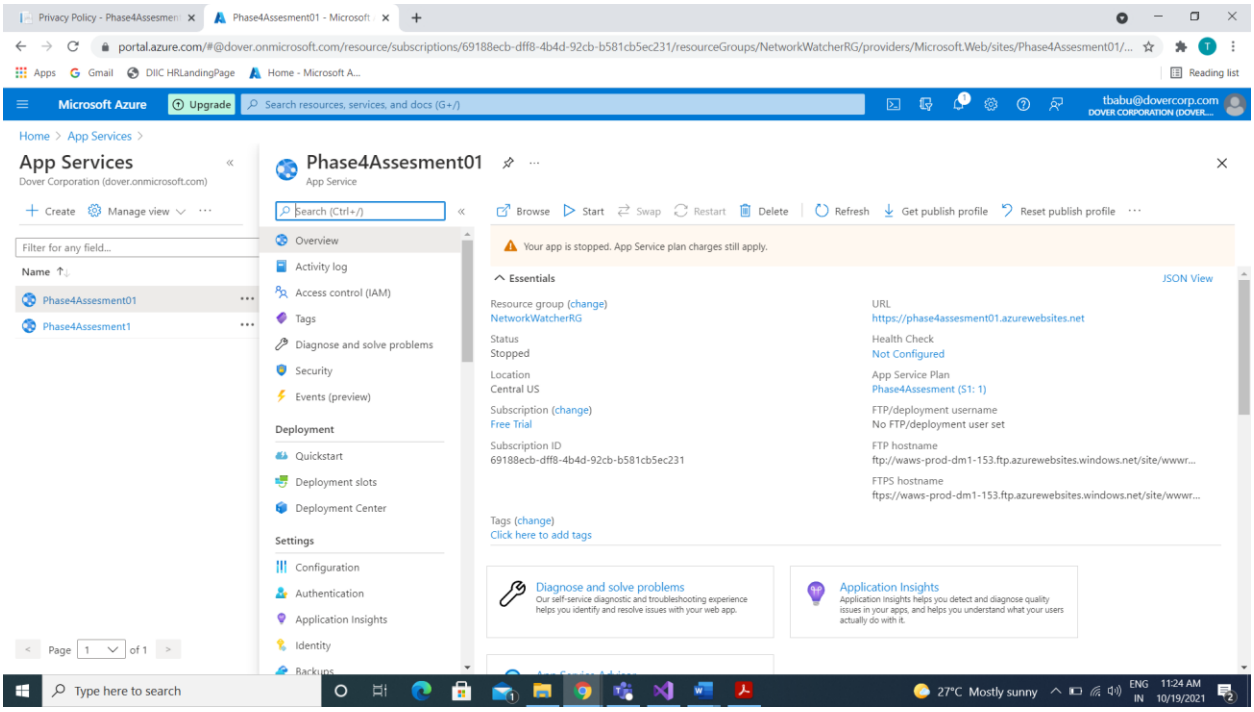


Figure 3: Success page

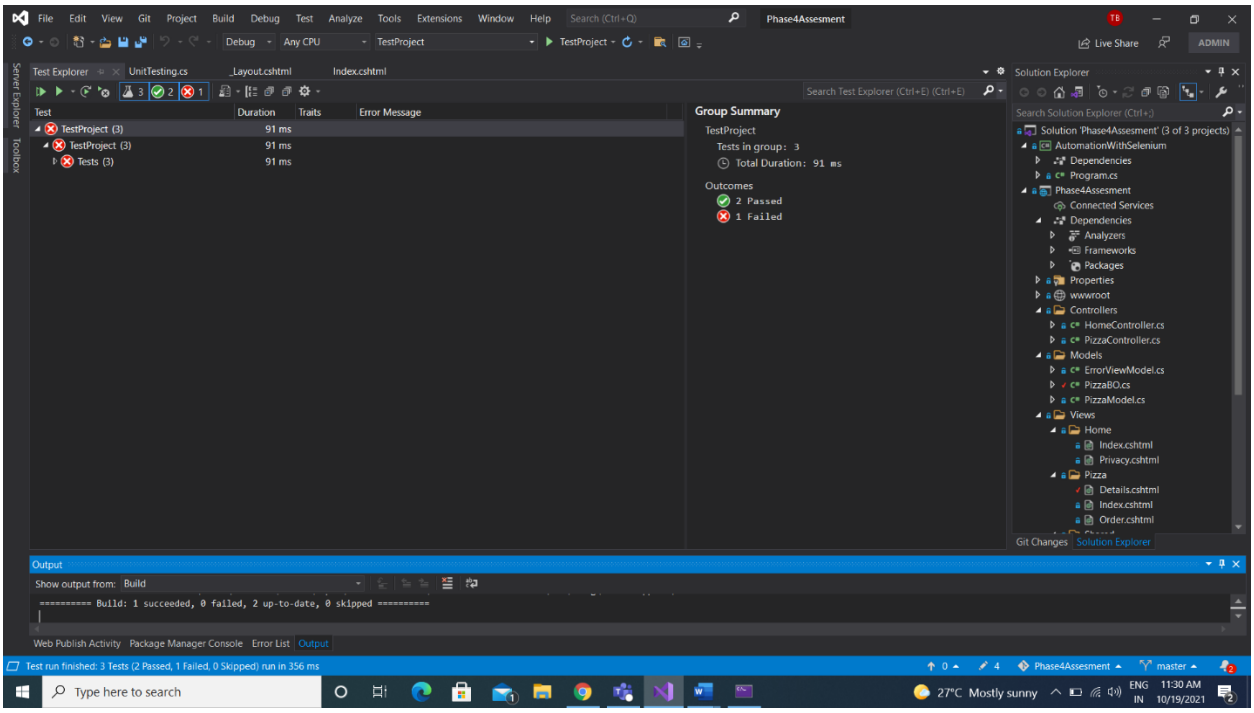
3.4. VM Configuration on Azure



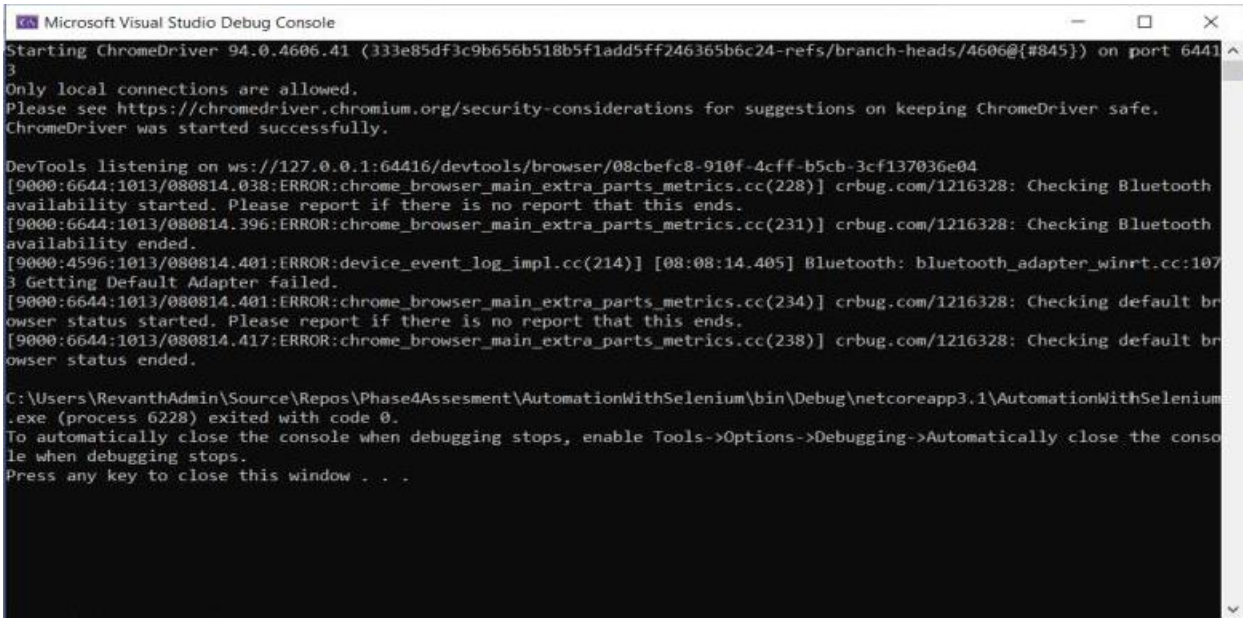
3.5. App service on Azure



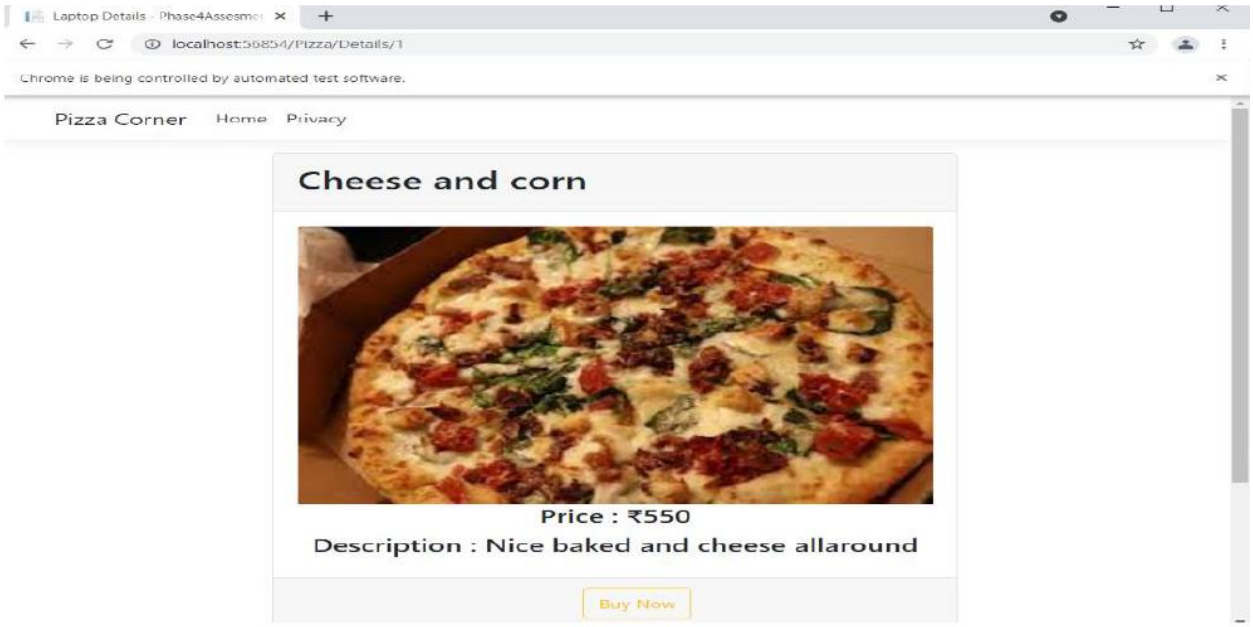
3.6. Testing Output



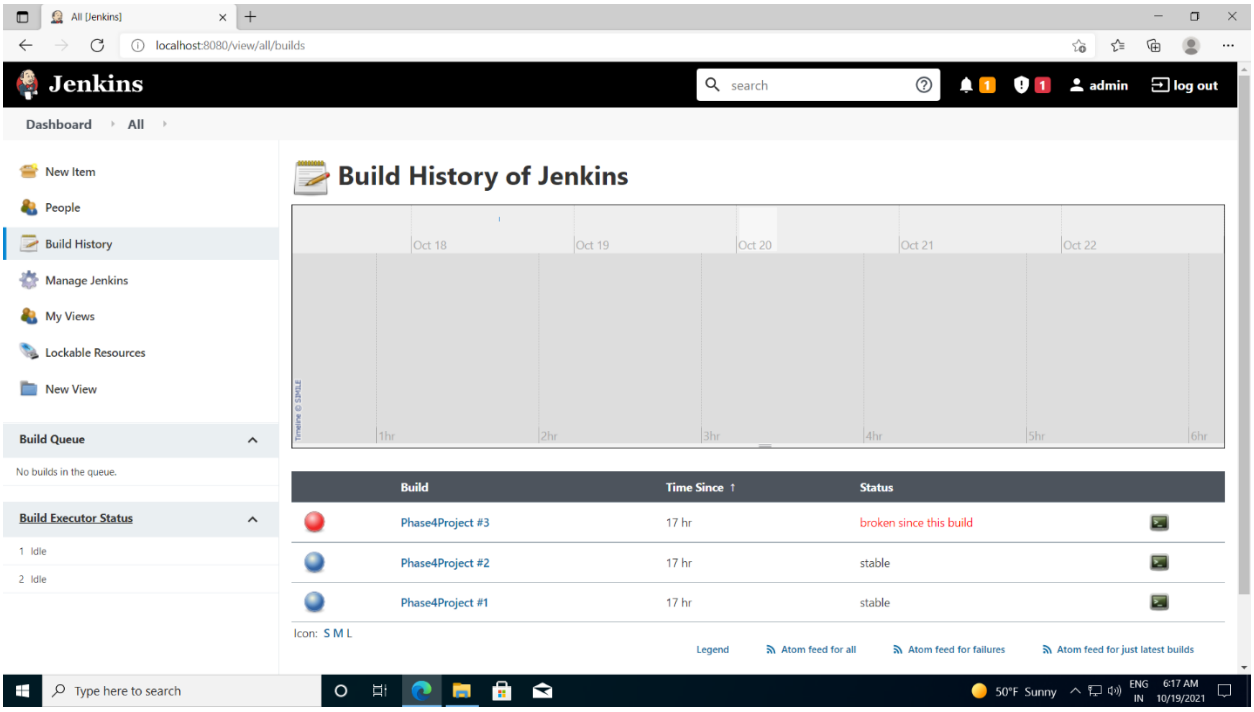
3.7. Selenium Output



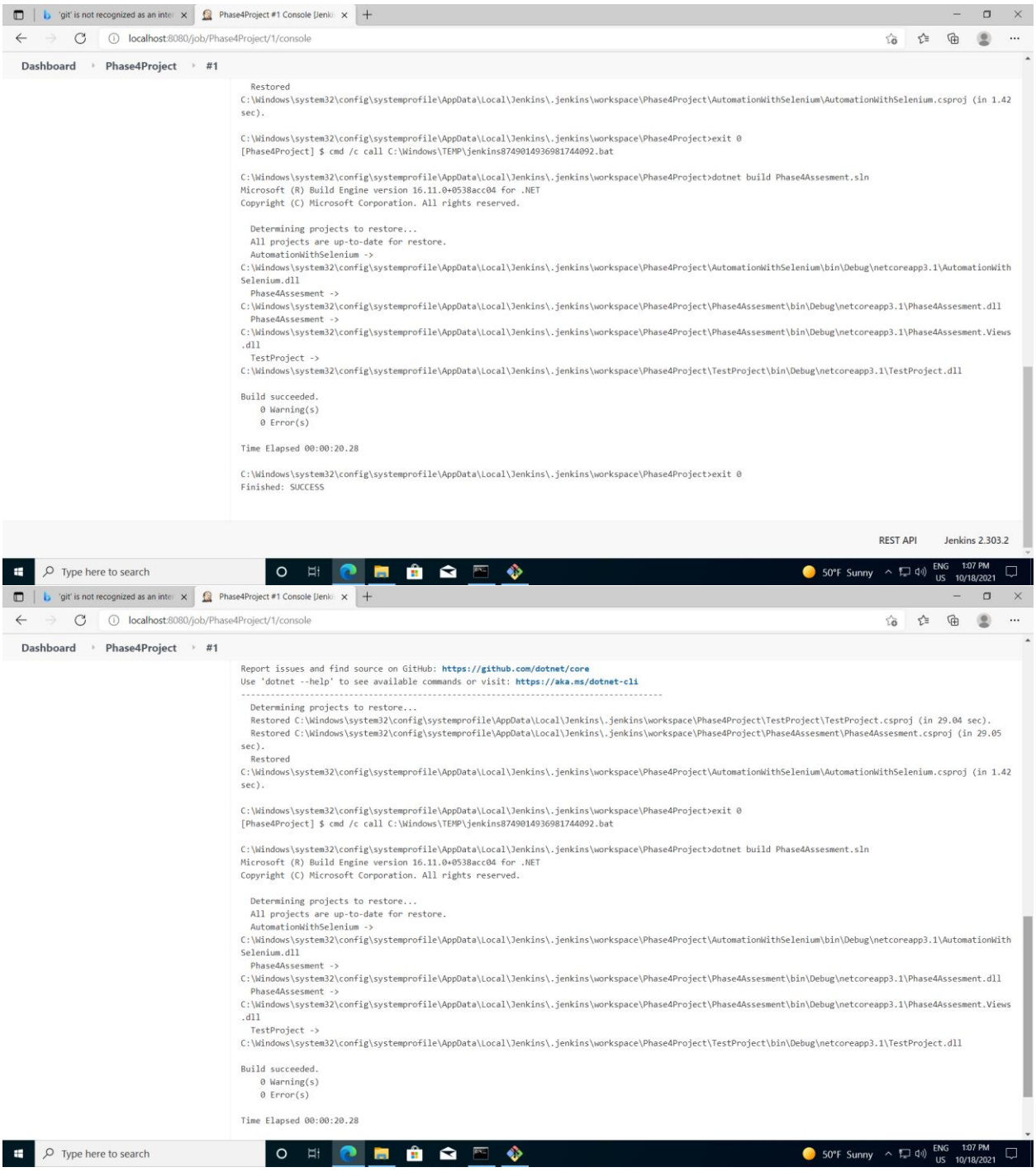
3.8. Chrome Browser controlled through selenium

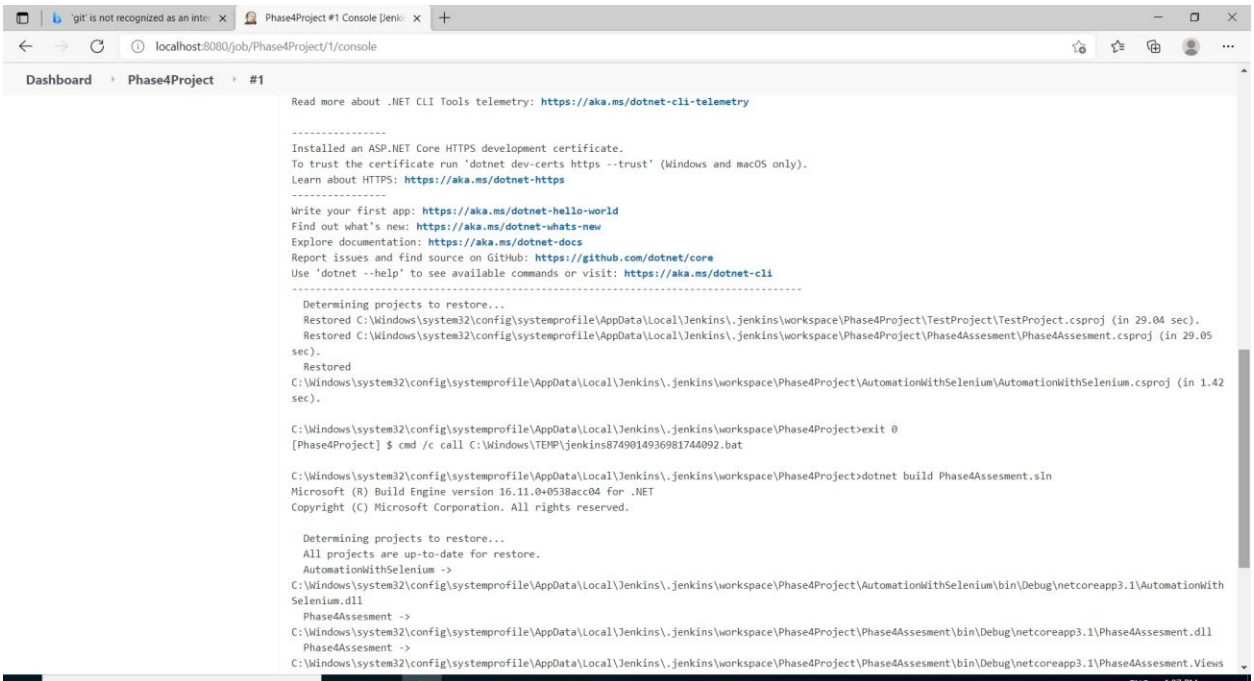


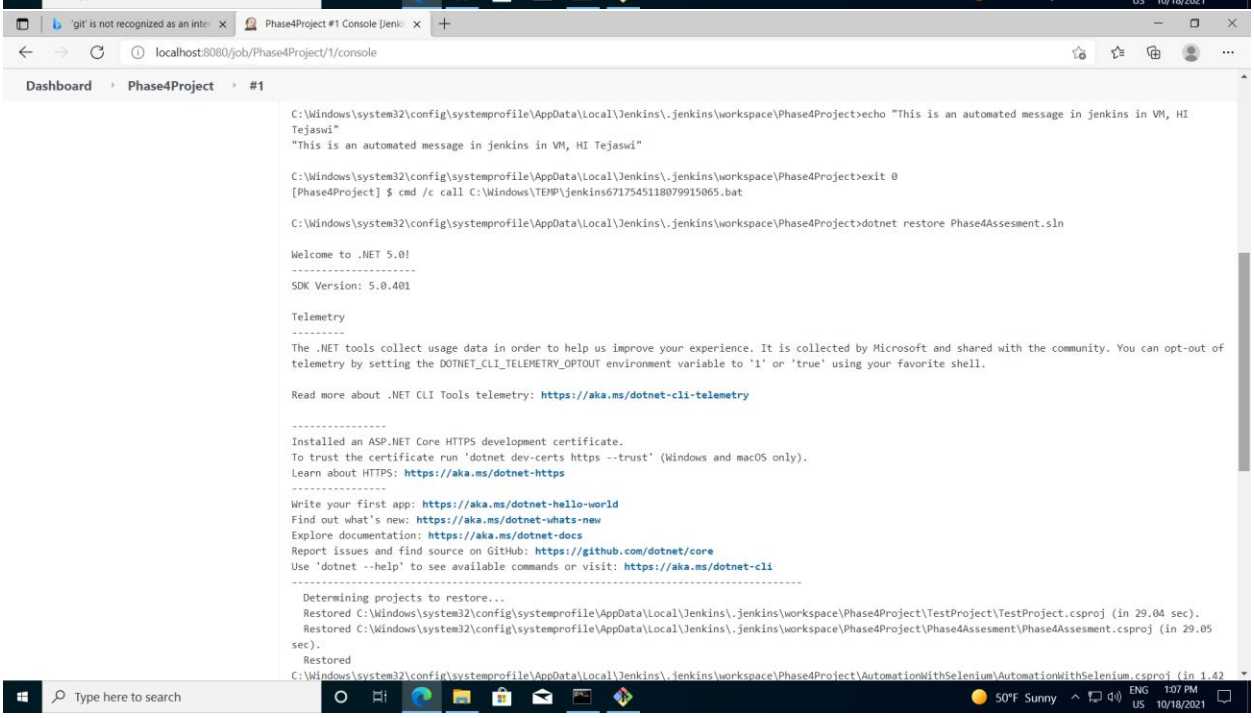
3.9. Build on Jenkins

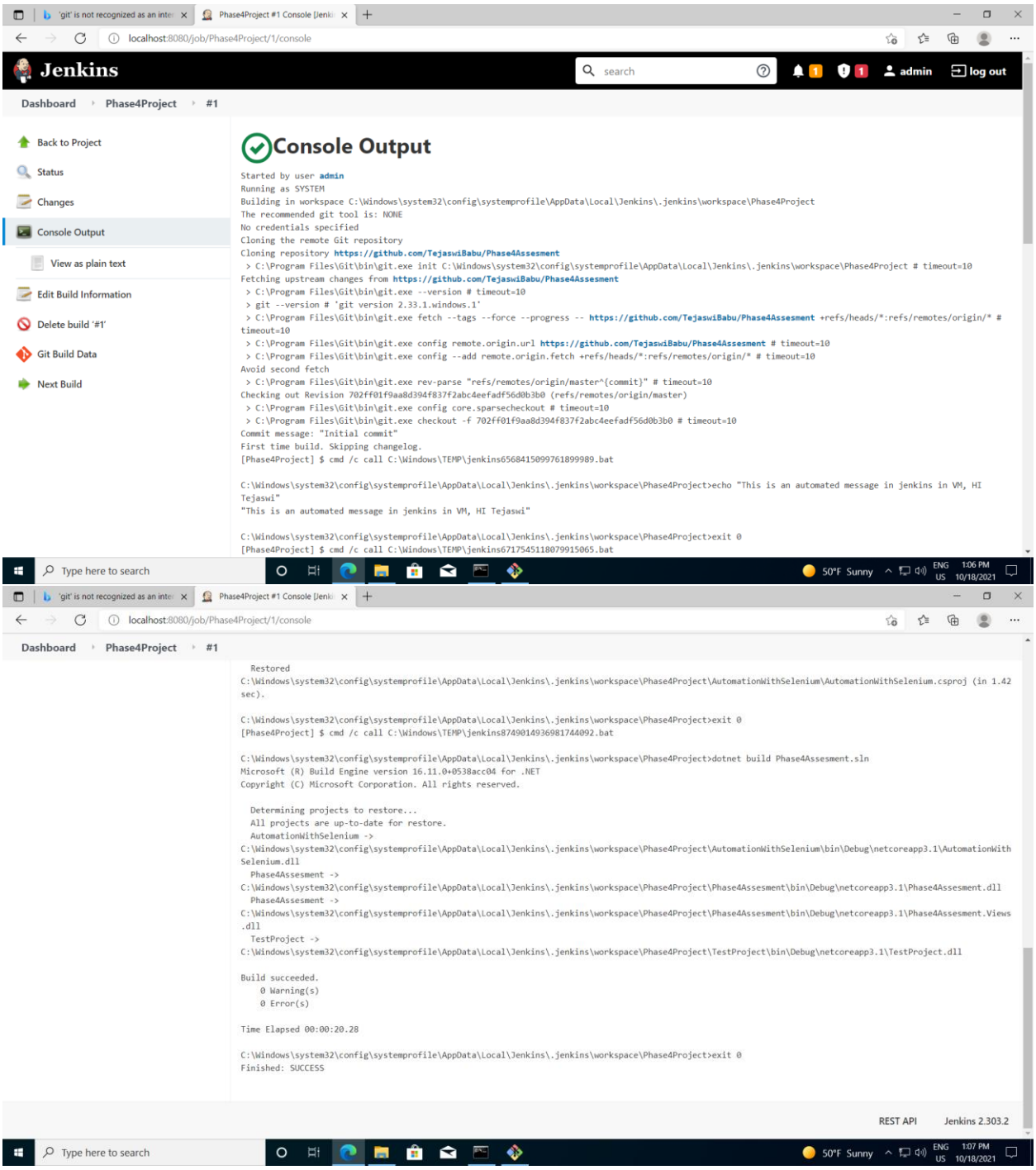


3.10. Jenkins Console Output

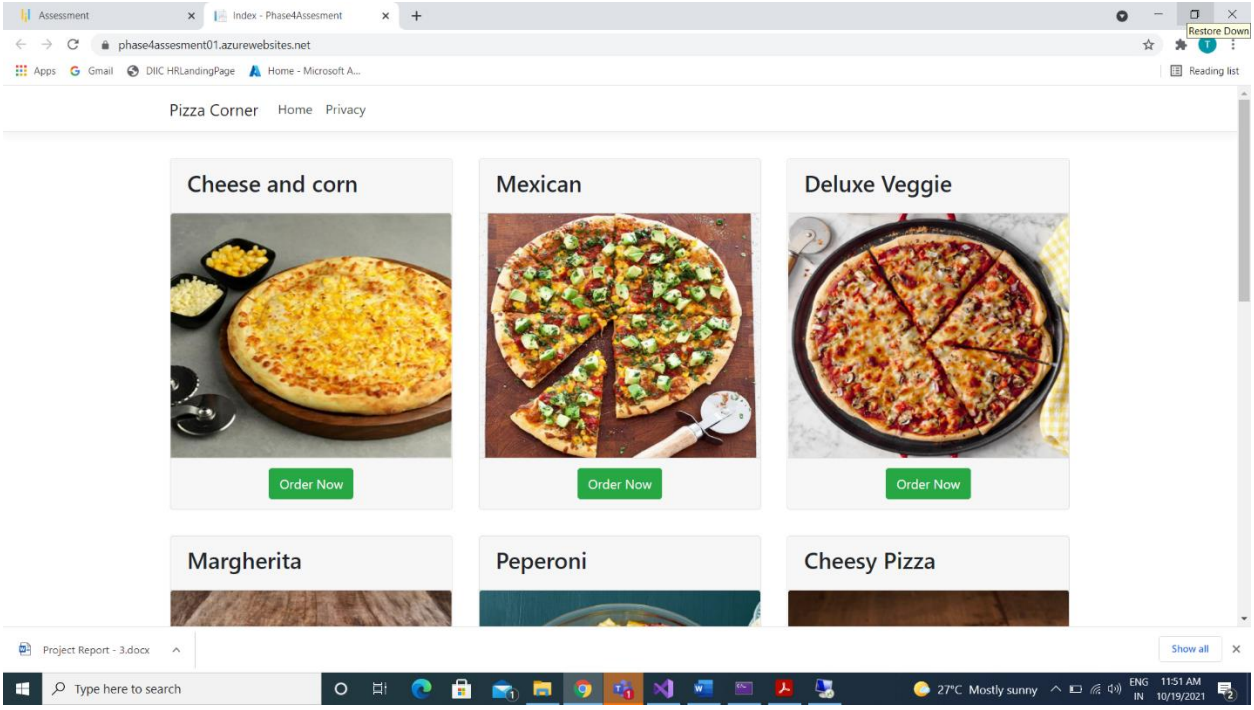



'git' is not recognized as an inter
Phase4Project #1 Console [Jenki
localhost:8080/job/Phase4Project/1/console
Dashboard
Phase4Project
#1
Read more about .NET CLI Tools telemetry: https://aka.ms/dotnet-cli-telemetry
Installed an ASP.NET Core HTTPS development certificate.
To trust the certificate run 'dotnet dev-certs https --trust' (Windows and macOS only).
Learn about HTTPS: https://aka.ms/dotnet-https
Write your first app: https://aka.ms/dotnet-hello-world
Find out what's new: https://aka.ms/dotnet-whats-new
Explore documentation: https://aka.ms/dotnet-docs
Report issues and find source on GitHub: https://github.com/dotnet/core
Use 'dotnet --help' to see available commands or visit: https://aka.ms/dotnet-cli
Determining projects to restore...
Restored C:\Windows\system32\config\systemprofile\AppData\Local\Jenkins\.jenkins\workspace\Phase4Project\TestProject\TestProject.csproj (in 29.04 sec).
Restored C:\Windows\system32\config\systemprofile\AppData\Local\Jenkins\.jenkins\workspace\Phase4Project\Phase4Assesment\Phase4Assesment.csproj (in 29.05 sec).
Restored C:\Windows\system32\config\systemprofile\AppData\Local\Jenkins\.jenkins\workspace\Phase4Project\AutomationWithSelenium\AutomationWithSelenium.csproj (in 1.42 sec).
C:\Windows\system32\config\systemprofile\AppData\Local\Jenkins\.jenkins\workspace\Phase4Project>exit 0
[Phase4Project] $ cmd /c call C:\Windows\TEMP\jenkins8749014936981744092.bat
C:\Windows\system32\config\systemprofile\AppData\Local\Jenkins\.jenkins\workspace\Phase4Project>dotnet build Phase4Assesment.sln
Microsoft (R) Build Engine version 16.11.0+0538acc04 for .NET
Copyright (C) Microsoft Corporation. All rights reserved.
Determining projects to restore...
All projects are up-to-date for restore.
AutomationWithSelenium ->
C:\Windows\system32\config\systemprofile\AppData\Local\Jenkins\.jenkins\workspace\Phase4Project\AutomationWithSelenium\bin\Debug\netcoreapp3.1\AutomationWithSelenium.dll
Phase4Assesment ->
C:\Windows\system32\config\systemprofile\AppData\Local\Jenkins\.jenkins\workspace\Phase4Project\Phase4Assesment\bin\Debug\netcoreapp3.1\Phase4Assesment.dll
Phase4Assesment ->
C:\Windows\system32\config\systemprofile\AppData\Local\Jenkins\.jenkins\workspace\Phase4Project\Phase4Assesment\bin\Debug\netcoreapp3.1\Phase4Assesment.Views
Type here to search
50°F Sunny
ENG US
1:07 PM 10/18/2021


'git' is not recognized as an inter
Phase4Project #1 Console [Jenki
localhost:8080/job/Phase4Project/1/console
Dashboard
Phase4Project
#1
C:\Windows\system32\config\systemprofile\AppData\Local\Jenkins\.jenkins\workspace\Phase4Project>echo "This is an automated message in jenkins in VM, HI Tejaswi"
"This is an automated message in jenkins in VM, HI Tejaswi"
C:\Windows\system32\config\systemprofile\AppData\Local\Jenkins\.jenkins\workspace\Phase4Project>exit 0
[Phase4Project] $ cmd /c call C:\Windows\TEMP\jenkins6717545118079915065.bat
C:\Windows\system32\config\systemprofile\AppData\Local\Jenkins\.jenkins\workspace\Phase4Project>dotnet restore Phase4Assesment.sln
Welcome to .NET 5.0!
SDK Version: 5.0.401
Telemetry
The .NET tools collect usage data in order to help us improve your experience. It is collected by Microsoft and shared with the community. You can opt-out of telemetry by setting the DOTNET_CLI_TELEMETRY_OPTOUT environment variable to '1' or 'true' using your favorite shell.
Read more about .NET CLI Tools telemetry: https://aka.ms/dotnet-cli-telemetry
Installed an ASP.NET Core HTTPS development certificate.
To trust the certificate run 'dotnet dev-certs https --trust' (Windows and macOS only).
Learn about HTTPS: https://aka.ms/dotnet-https
Write your first app: https://aka.ms/dotnet-hello-world
Find out what's new: https://aka.ms/dotnet-whats-new
Explore documentation: https://aka.ms/dotnet-docs
Report issues and find source on GitHub: https://github.com/dotnet/core
Use 'dotnet --help' to see available commands or visit: https://aka.ms/dotnet-cli
Determining projects to restore...
Restored C:\Windows\system32\config\systemprofile\AppData\Local\Jenkins\.jenkins\workspace\Phase4Project\TestProject\TestProject.csproj (in 29.04 sec).
Restored C:\Windows\system32\config\systemprofile\AppData\Local\Jenkins\.jenkins\workspace\Phase4Project\Phase4Assesment\Phase4Assesment.csproj (in 29.05 sec).
Restored
Type here to search
50°F Sunny
ENG US
1:07 PM 10/18/2021


Jenkins
search
admin
log out
Dashboard
Phase4Project
#1
Back to Project
Status
Changes
Console Output
View as plain text
Edit Build Information
Delete build '#1'
Git Build Data
Next Build
Console Output
Started by user admin
Running as SYSTEM
Building in workspace C:\Windows\system32\config\systemprofile\AppData\Local\Jenkins\.jenkins\workspace\Phase4Project
The recommended git tool is: NONE
No credentials specified
Cloning the remote Git repository
Cloning repository https://github.com/TejaswiBabu/Phase4Assesment
> C:\Program Files\Git\bin\git.exe init C:\Windows\system32\config\systemprofile\AppData\Local\Jenkins\.jenkins\workspace\Phase4Project # timeout=10
Fetching upstream changes from https://github.com/TejaswiBabu/Phase4Assesment
> C:\Program Files\Git\bin\git.exe --version # timeout=10
> git --version # 'git version 2.33.1.windows.1'
> C:\Program Files\Git\bin\git.exe fetch --tags --force --progress -- https://github.com/TejaswiBabu/Phase4Assesment +refs/heads/*:refs/remotes/origin/* # timeout=10
> C:\Program Files\Git\bin\git.exe config remote.origin.url https://github.com/TejaswiBabu/Phase4Assesment # timeout=10
> C:\Program Files\Git\bin\git.exe config --add remote.origin.fetch +refs/heads/*:refs/remotes/origin/* # timeout=10
Avoid second fetch
> C:\Program Files\Git\bin\git.exe rev-parse "refs/remotes/origin/master^{commit}" # timeout=10
Checking out Revision 702ff01f9aa8d394f837f2abc4eefadf56d0b3b0 (refs/remotes/origin/master)
> C:\Program Files\Git\bin\git.exe config core.sparsecheckout # timeout=10
> C:\Program Files\Git\bin\git.exe checkout -f 702ff01f9aa8d394f837f2abc4eefadf56d0b3b0 # timeout=10
Commit message: "Initial commit"
First time build. Skipping changelog.
[Phase4Project] $ cmd /c call C:\Windows\TEMP\jenkins6568415099761899989.bat
C:\Windows\system32\config\systemprofile\AppData\Local\Jenkins\.jenkins\workspace\Phase4Project>echo "This is an automated message in jenkins in VM, HI Tejaswi"
"This is an automated message in jenkins in VM, HI Tejaswi"
C:\Windows\system32\config\systemprofile\AppData\Local\Jenkins\.jenkins\workspace\Phase4Project>exit 0
[Phase4Project] $ cmd /c call C:\Windows\TEMP\jenkins6717545118079915065.bat
Type here to search
50°F Sunny
ENG US
1:06 PM 10/18/2021
Restored C:\Windows\system32\config\systemprofile\AppData\Local\Jenkins\.jenkins\workspace\Phase4Project\AutomationWithSelenium\AutomationWithSelenium.csproj (in 1.42 sec).
C:\Windows\system32\config\systemprofile\AppData\Local\Jenkins\.jenkins\workspace\Phase4Project>exit 0
[Phase4Project] $ cmd /c call C:\Windows\TEMP\jenkins8749014936981744092.bat
C:\Windows\system32\config\systemprofile\AppData\Local\Jenkins\.jenkins\workspace\Phase4Project>dotnet build Phase4Assesment.sln
Microsoft (R) Build Engine version 16.11.0+0538acc04 for .NET
Copyright (C) Microsoft Corporation. All rights reserved.
Determining projects to restore...
All projects are up-to-date for restore.
AutomationWithSelenium -> C:\Windows\system32\config\systemprofile\AppData\Local\Jenkins\.jenkins\workspace\Phase4Project\AutomationWithSelenium\bin\Debug\netcoreapp3.1\AutomationWithSelenium.dll
Phase4Assesment -> C:\Windows\system32\config\systemprofile\AppData\Local\Jenkins\.jenkins\workspace\Phase4Project\Phase4Assesment\bin\Debug\netcoreapp3.1\Phase4Assesment.dll
Phase4Assesment -> C:\Windows\system32\config\systemprofile\AppData\Local\Jenkins\.jenkins\workspace\Phase4Project\Phase4Assesment\bin\Debug\netcoreapp3.1\Phase4Assesment.Views.dll
TestProject -> C:\Windows\system32\config\systemprofile\AppData\Local\Jenkins\.jenkins\workspace\Phase4Project\TestProject\bin\Debug\netcoreapp3.1\TestProject.dll
Build succeeded.
0 Warning(s)
0 Error(s)
Time Elapsed 00:00:20.28
C:\Windows\system32\config\systemprofile\AppData\Local\Jenkins\.jenkins\workspace\Phase4Project>exit 0
Finished: SUCCESS
REST API
Jenkins 2.303.2
Type here to search
50°F Sunny
ENG US
1:07 PM 10/18/2021

3.11.Deploying website on azure



END OF PROJECT

THANKING YOU

Tejaswi.B

19th October 2021