PHASE 4: Create a Prototype for Joe's Pizza Portal Using Selenium, NUnit, and SpecFlow to Develop and Test. Deploy it into Azure VM Using Jenkins

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.

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PROJECT OUTLINE

Create 3. cshtml pages of a Pizza ordering website and perform Unit testing using NUnit and do an automation of ordering a pizza on the Views page, Also Automate the project using Jenkins on a Virtual Machine.

- Create a Details, Order and Checkout Page for viewing and ordering pizzas from the menu using MVC pattern in Visual Studio 2019.
- Install all necessary packages on the VM and run the project.
- Finally publish it on the Azure Platform.

IMPLEMENTED FEATURES

1. Create a VM using Azure and Connect to it and perform the below 7 steps.
2. Open a .Net ASP Project with MVC Pattern under a Solution.
3. Implementing all 3 views and check for the functionality of them.
4. Create another project (NUnit) for testing under the same solution and describe 3 tests (one to see how many elements are in List, to check whether particular Id is returning the same pizza and vice-versa).
5. Create another project(Console Application) under the same solution and install a chrome driver on the machine and perform an automation to order pizza from the views.
6. Push the code to the GitHub from Visual Studio.
7. Install Jenkins along with Java 8 on the VM and create a new Job. Configure it to perform the automation.
8. Switch Back to local Machine, Clone the project on the Visual Studio 2019 and publish it using Azure (Since Company credentials will not get authenticated to publish through VM).

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