**Capstone Project**

**Testing Medicare web application**

**DESCRIPTION**

This project requires end-to-end development of a comprehensive QA and test environment for a healthcare website. This QA and test environment should be inclusive of the following testing layers:

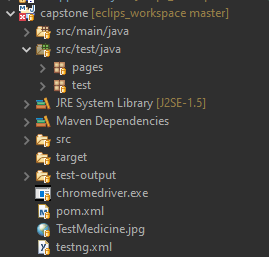
1. Browser-based end user testing using Selenium WebDriver & TestNG
2. API testing with Postman on AWS cloud
3. Automating the whole testing process by a Jenkins job

**Implementation steps:**

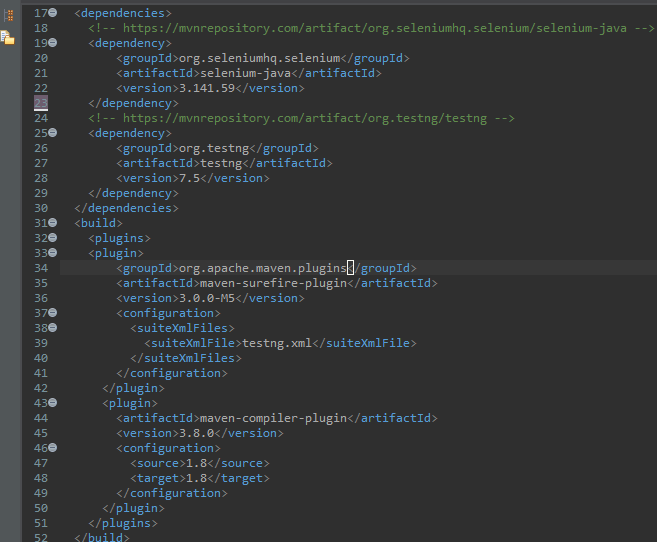
1. Write an automation script using page object design to store the web elements of the home page
2. Create Selenium scripts to test the pages on the website
3. Execute using TestNG
4. Create Postman scripts to test the API endpoints mentioned
5. Create and build Jenkins job for all the automation testing phases performed in the previous steps

# Write an automation script using page object design to store the web elements of the home page

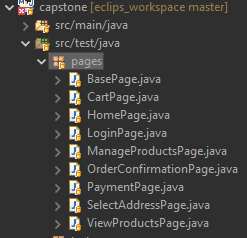
Create maven project



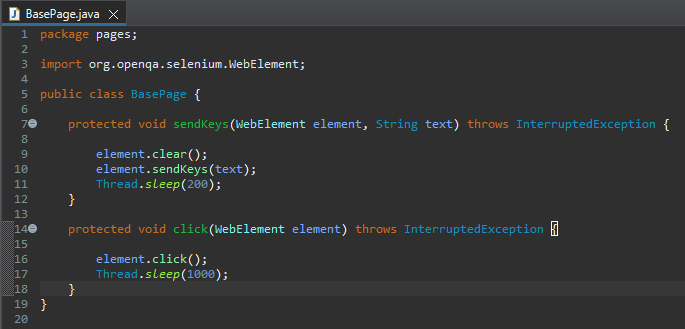
Add all dependencies in pom.xml



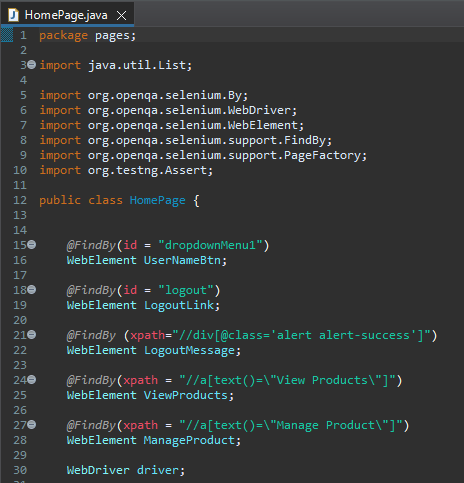
Create pages package and add all necessary page class files



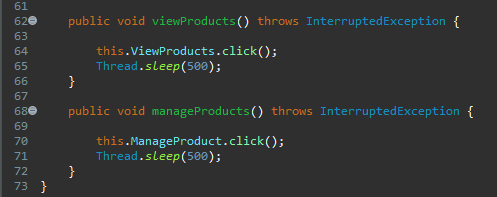
BasePage.java



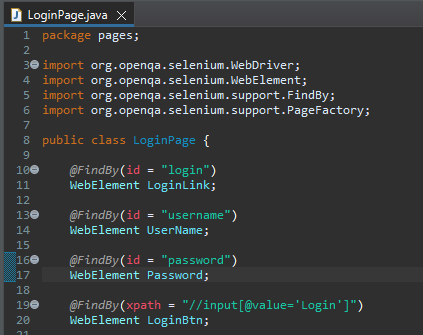
HomePage.java

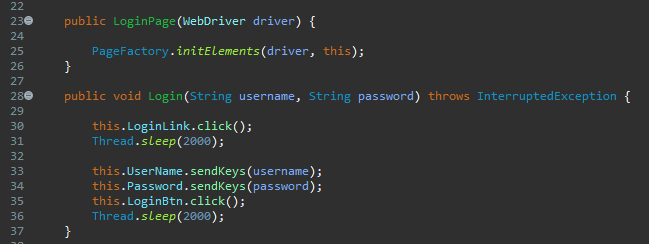




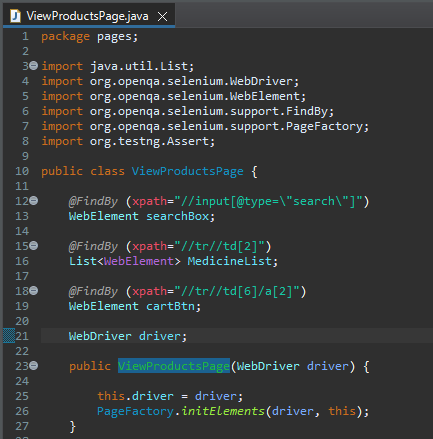


LoginPage.java



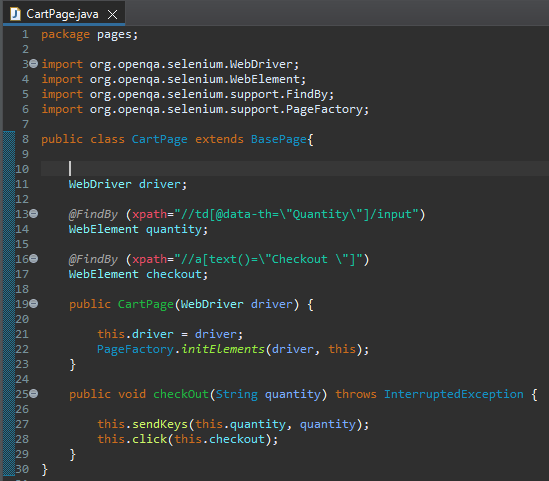


ViewProductsPage.java

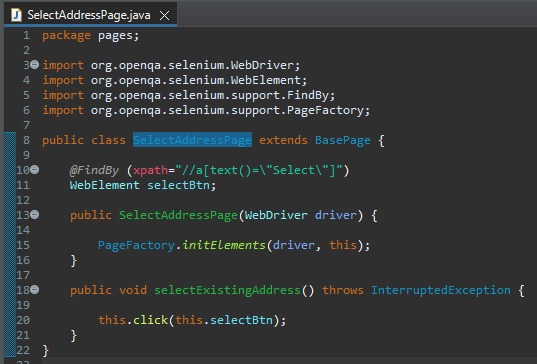




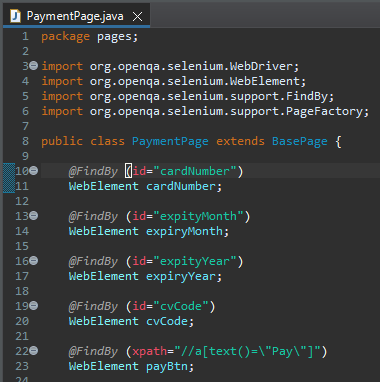
CartPage.java

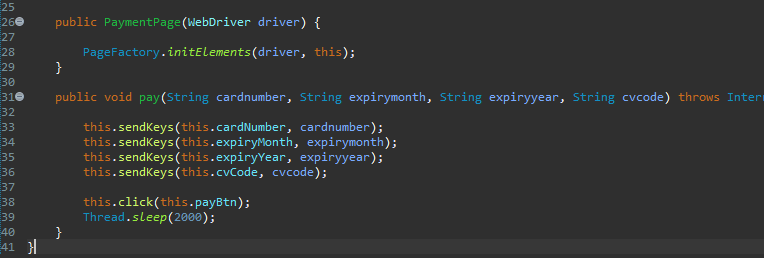


SelectAddressPage.java

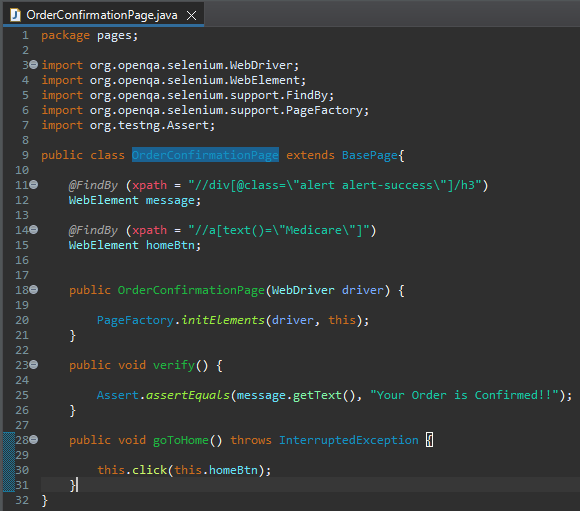


PaymentPage.java





OrderConfirmationPage.java



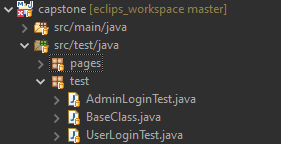
ManageProductsPage.java



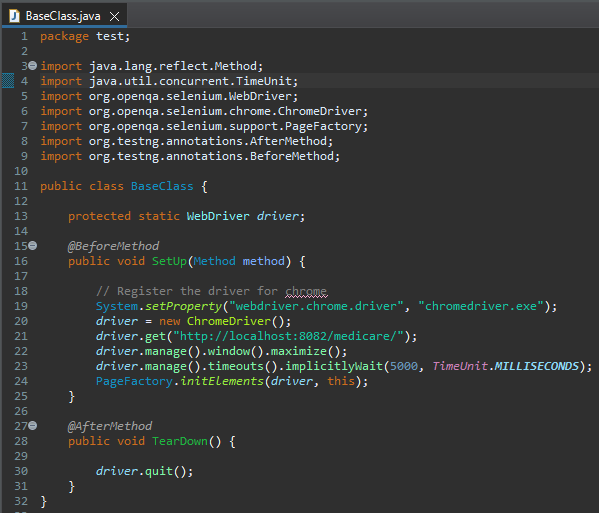
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# Create Selenium scripts to test the pages on the website

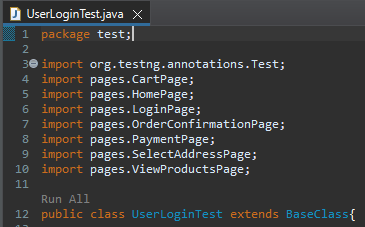
Creating test package with all required test files

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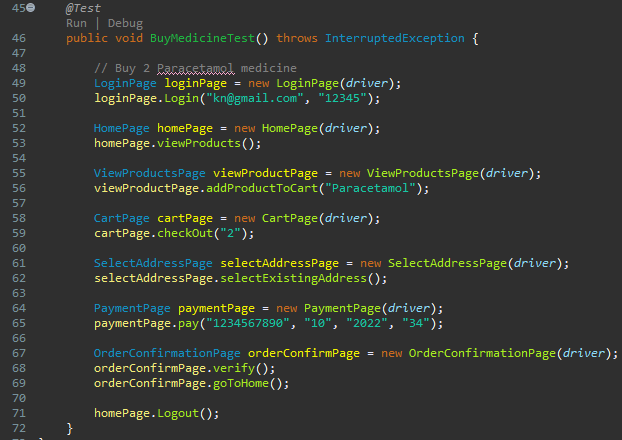
BaseClass.java



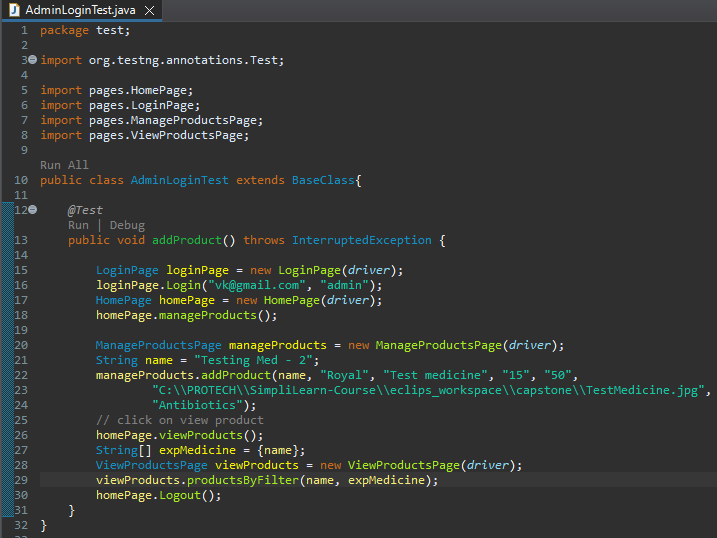
UserLoginTest.java





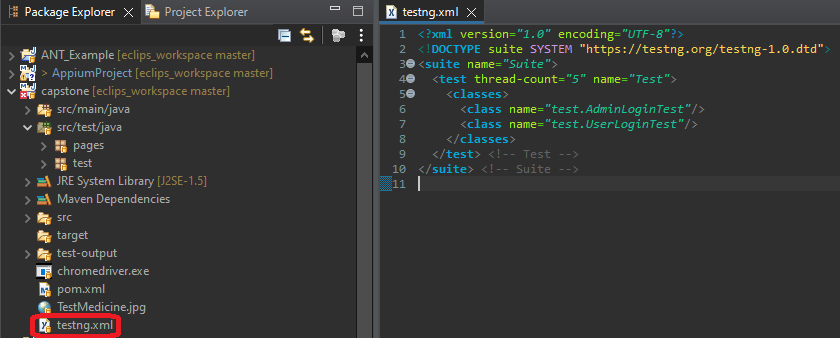


AdminLoginTest.java

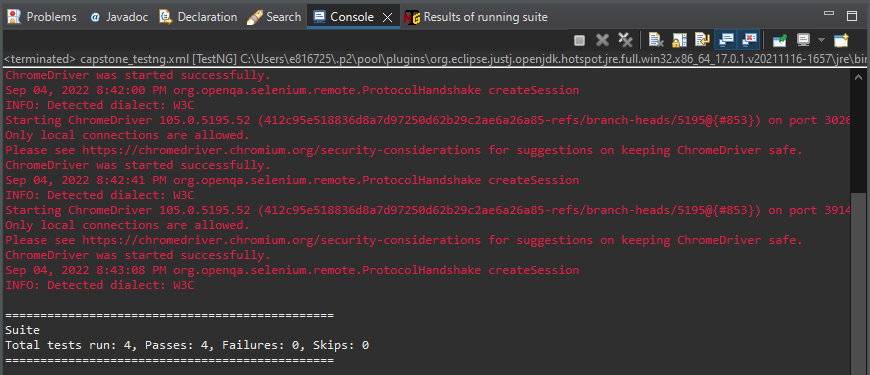


# Execute using TestNG

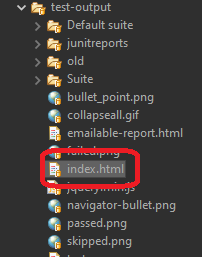
Converting project to TestNG and generating testing.xml file

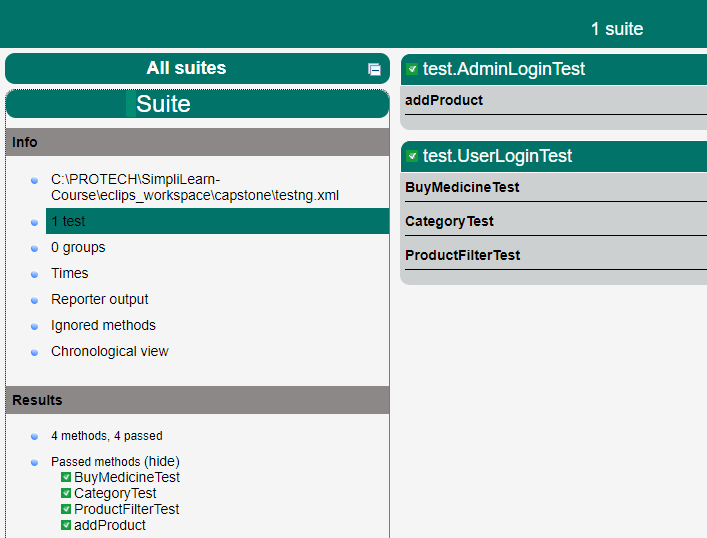


Running this project locally using TestNG



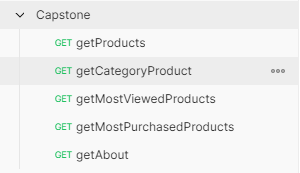
Generated testing report



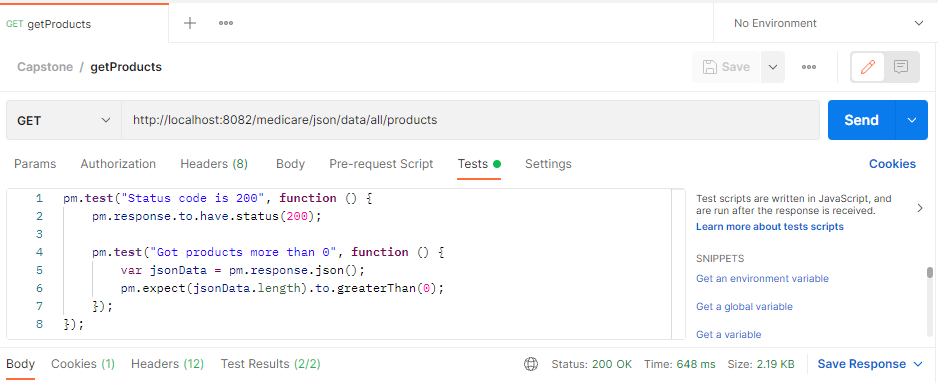


# Create Postman scripts to test the API endpoints mentioned

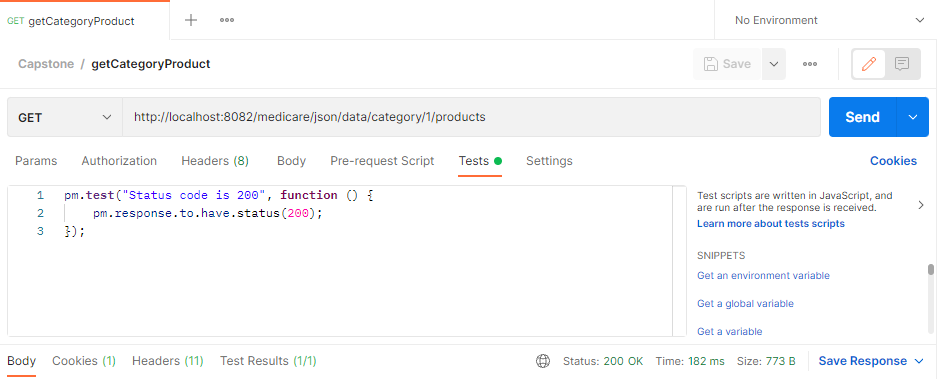
Created below API tests in Postman



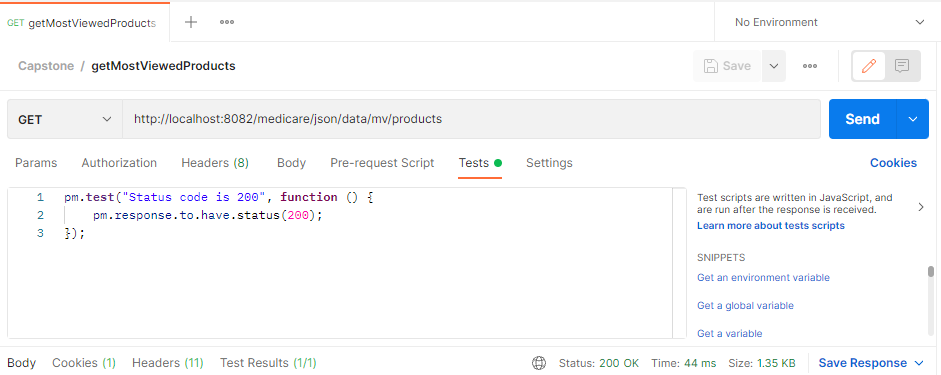
getProducts



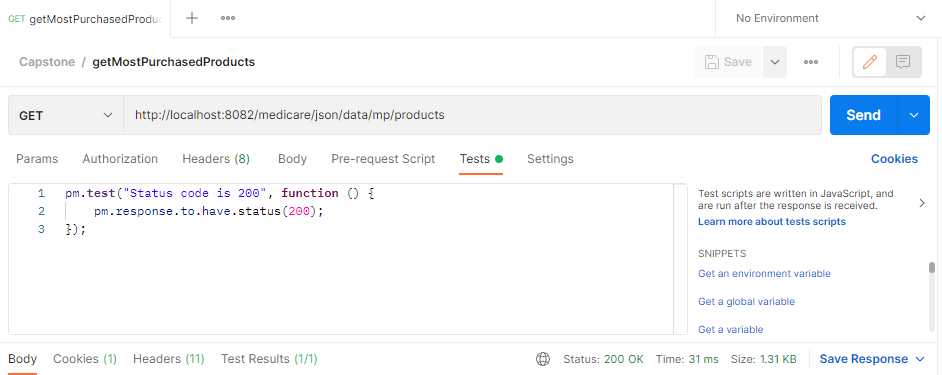
getCategoryProduct



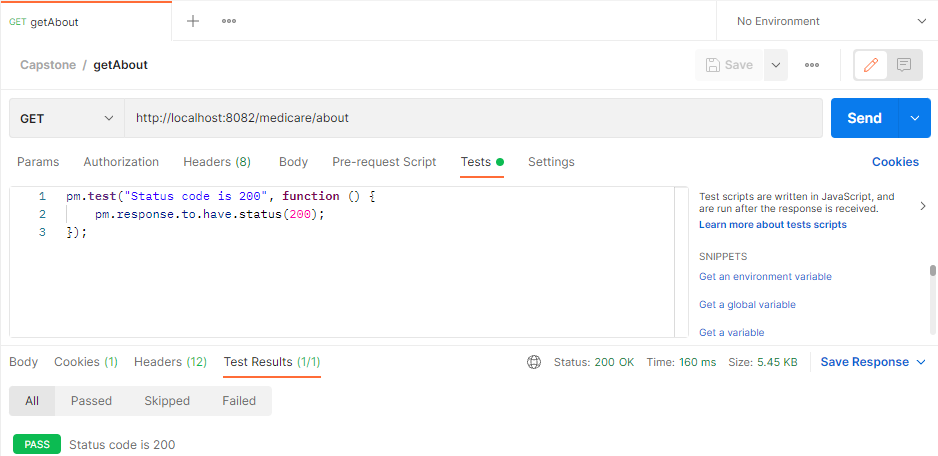
getMostViewedProducts



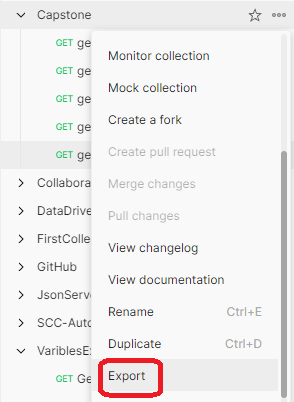
getMostPurchasedProducts

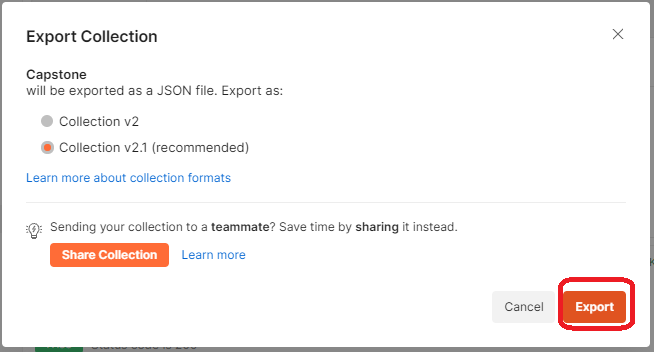


getAbout



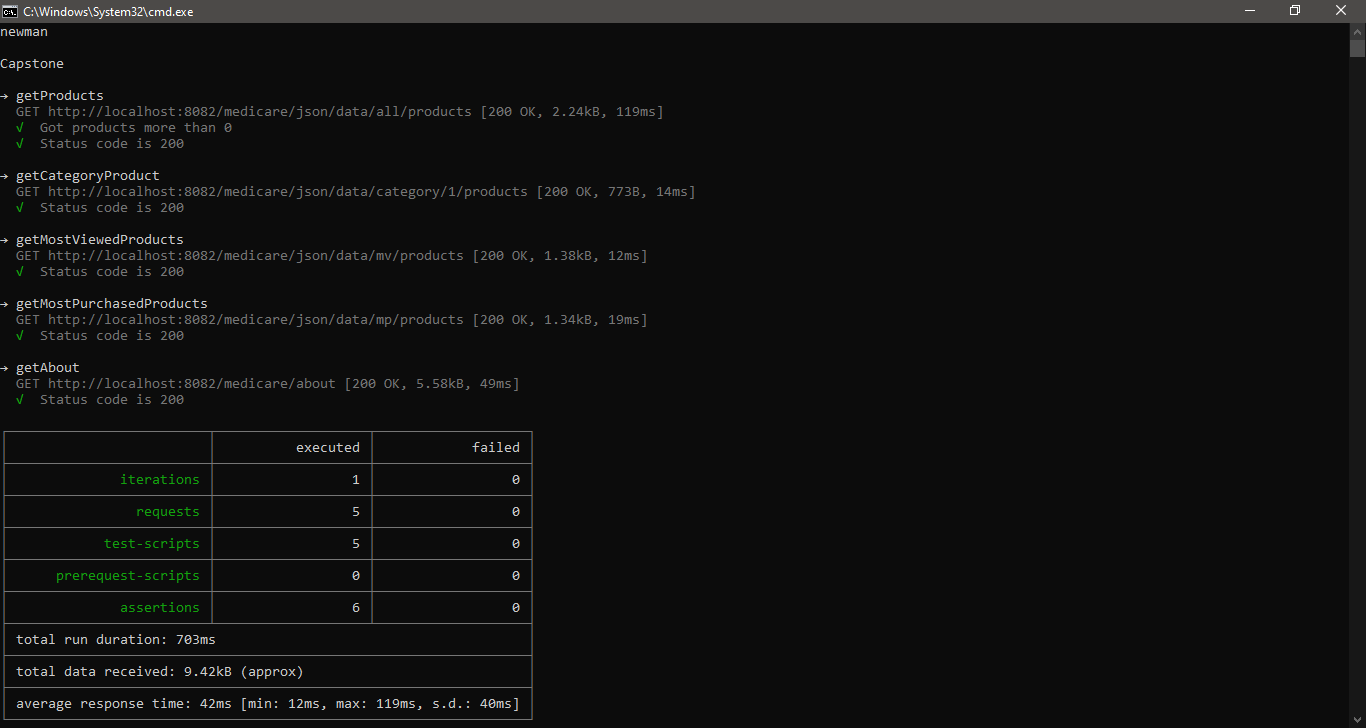
Export this collection as json file





Run this json collection file using newman locally with command

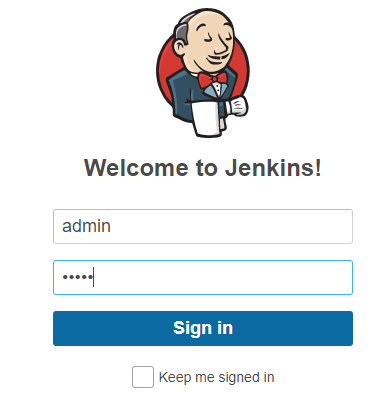
newman run Capstone.postman\_collection.json



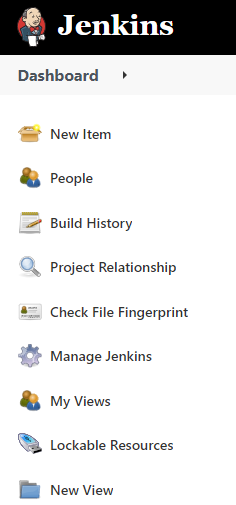
# Create and build Jenkins job for all the automation testing phases

Creating Jenkins job for Web application testing using selenium, TestNG, Maven and Git

Login to Jenkins

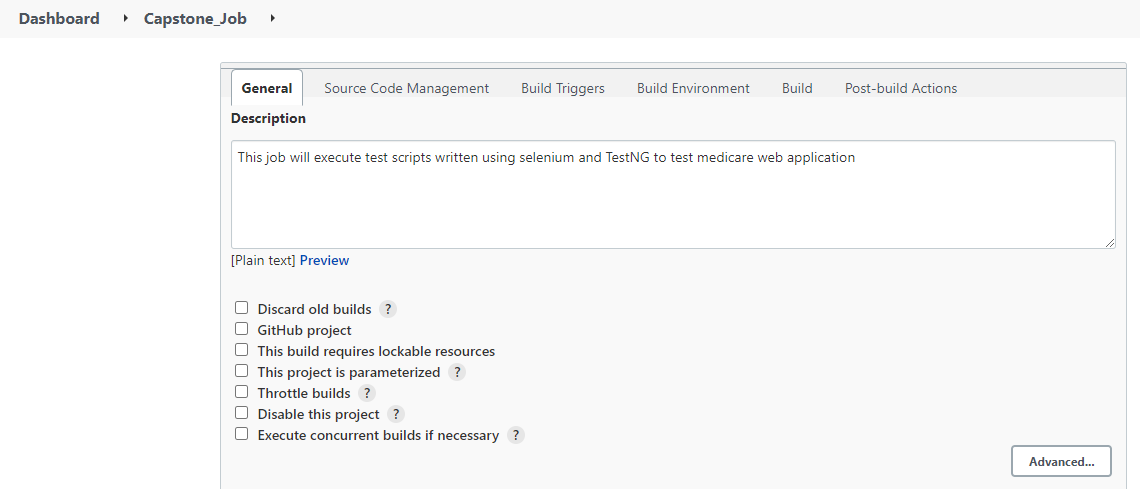


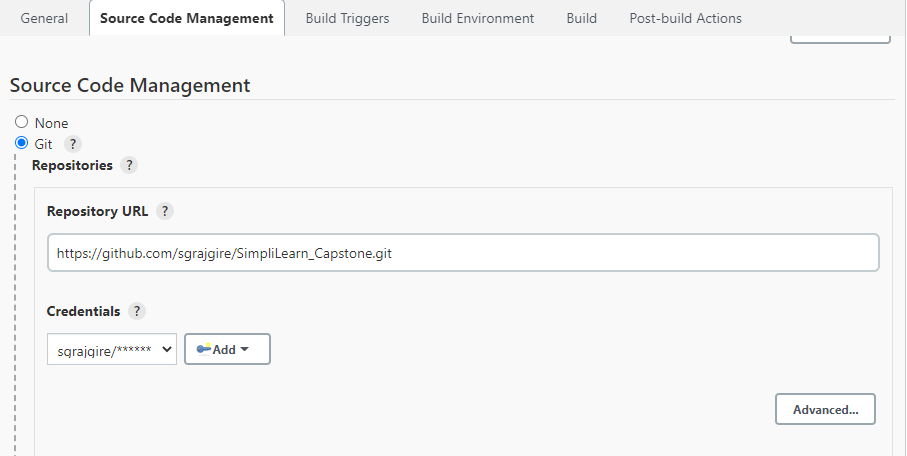
Landing page (Dashboard)

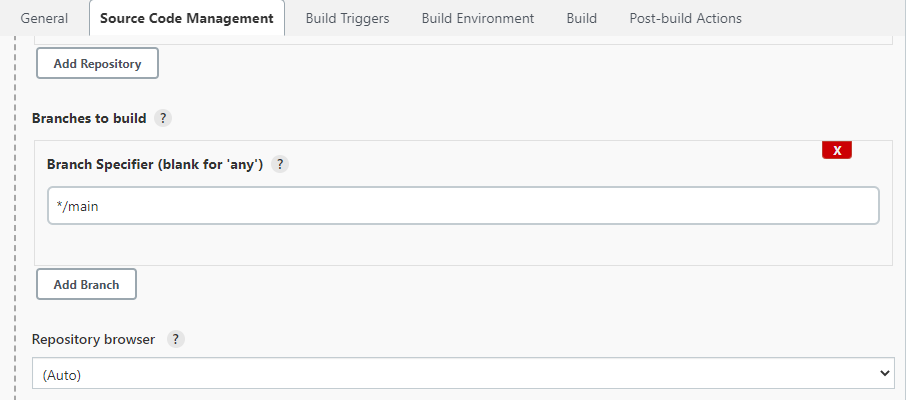


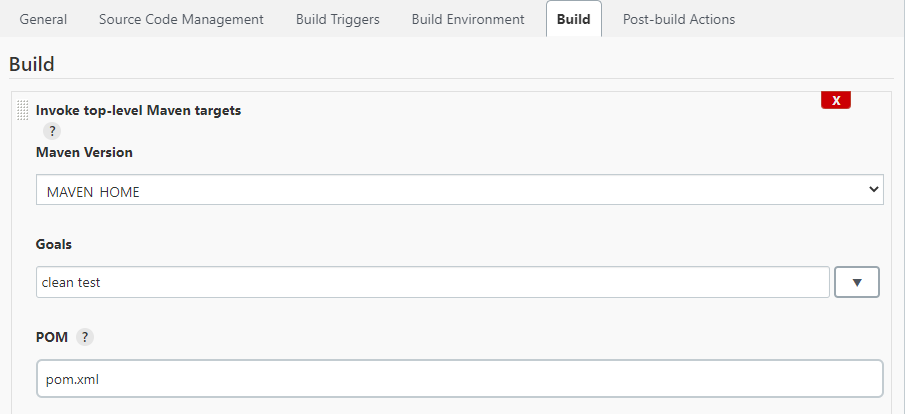
Create new item for this job

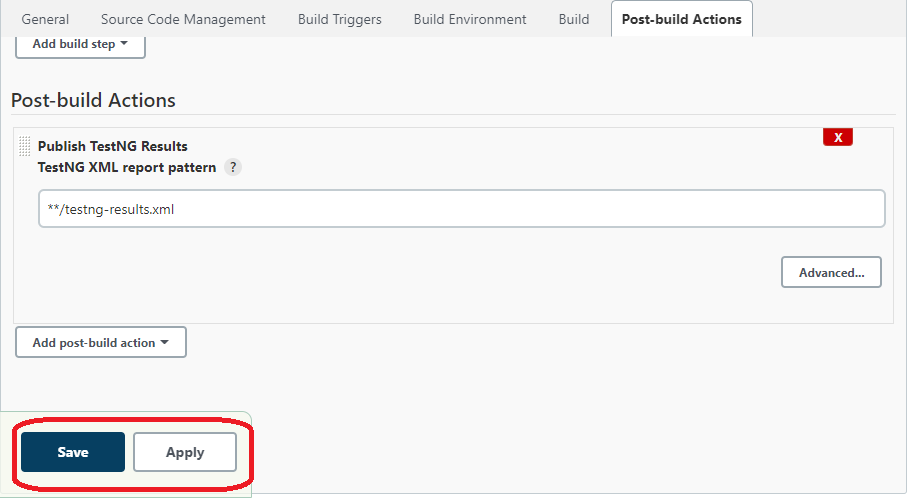
Creating free style project Capstone\_Job





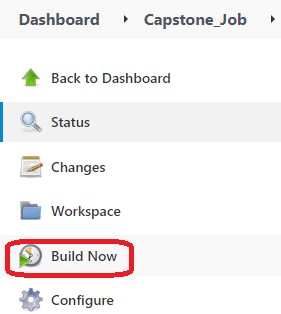




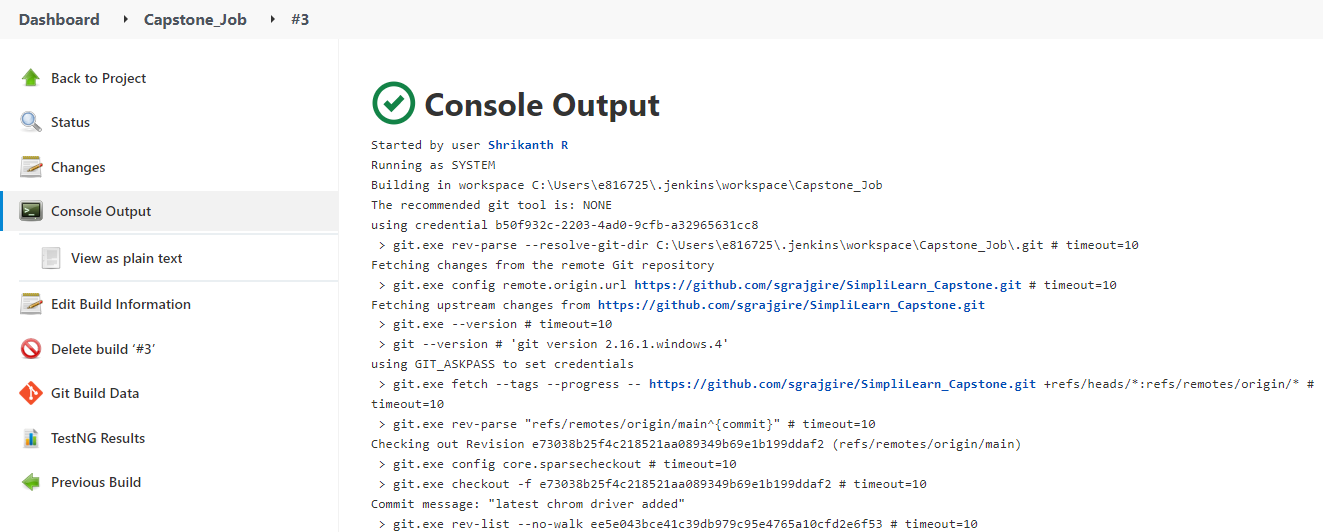


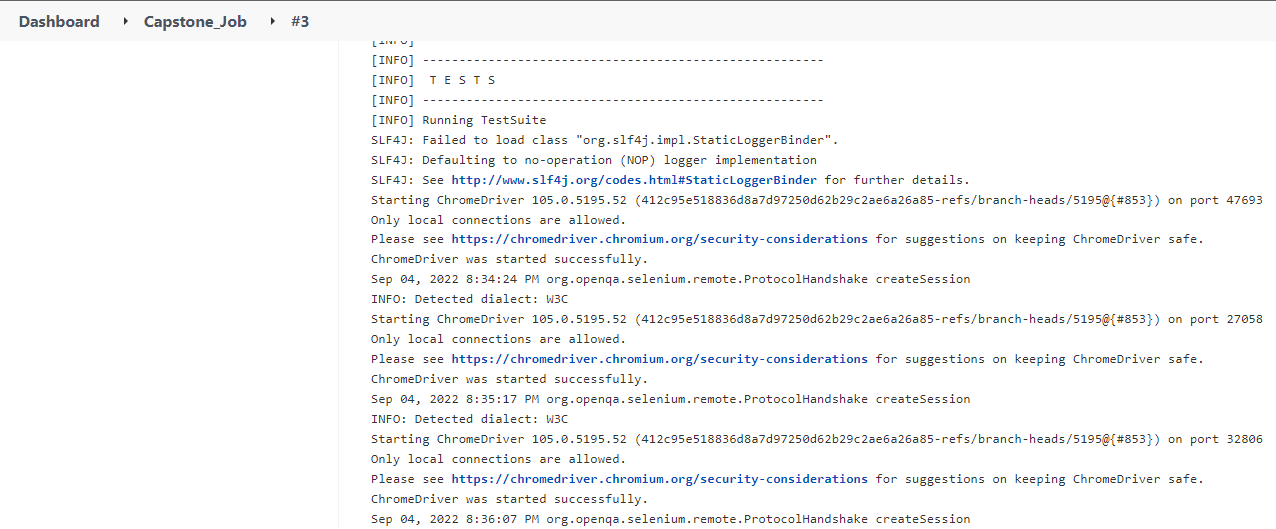
Apply and Save as shown above.

Goto job and click on Build now



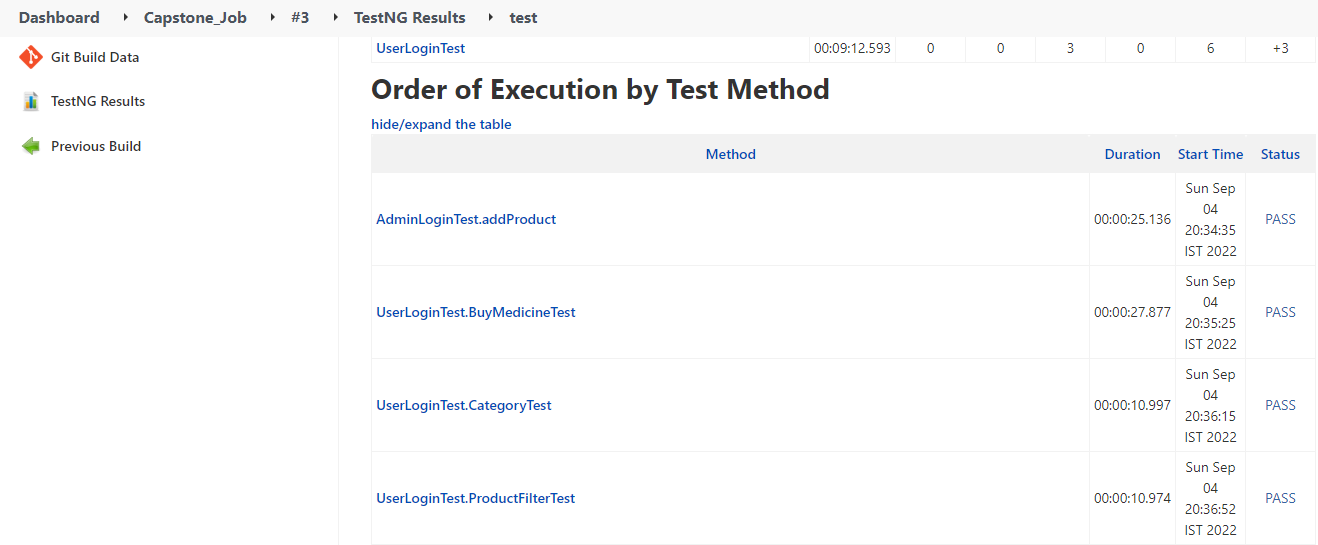
Console output



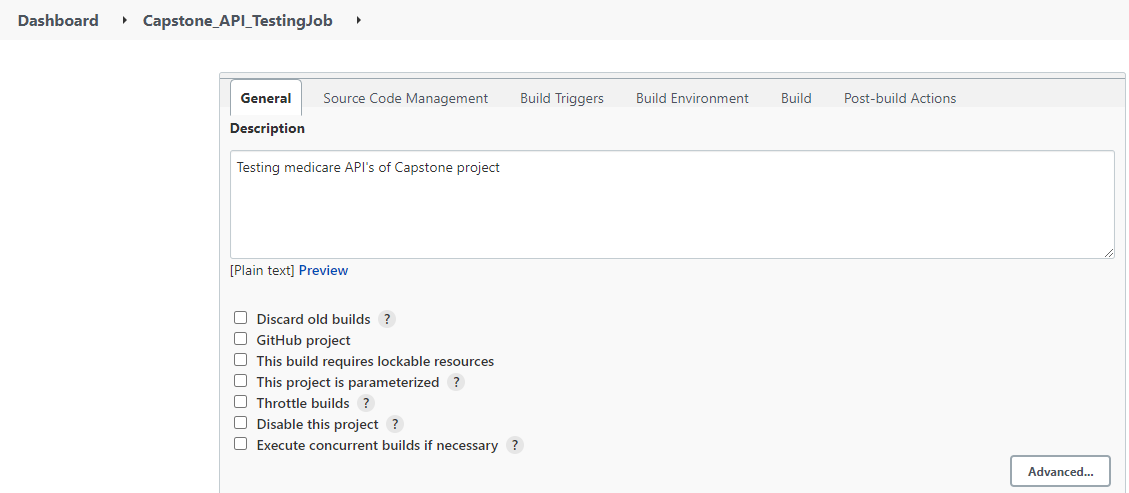


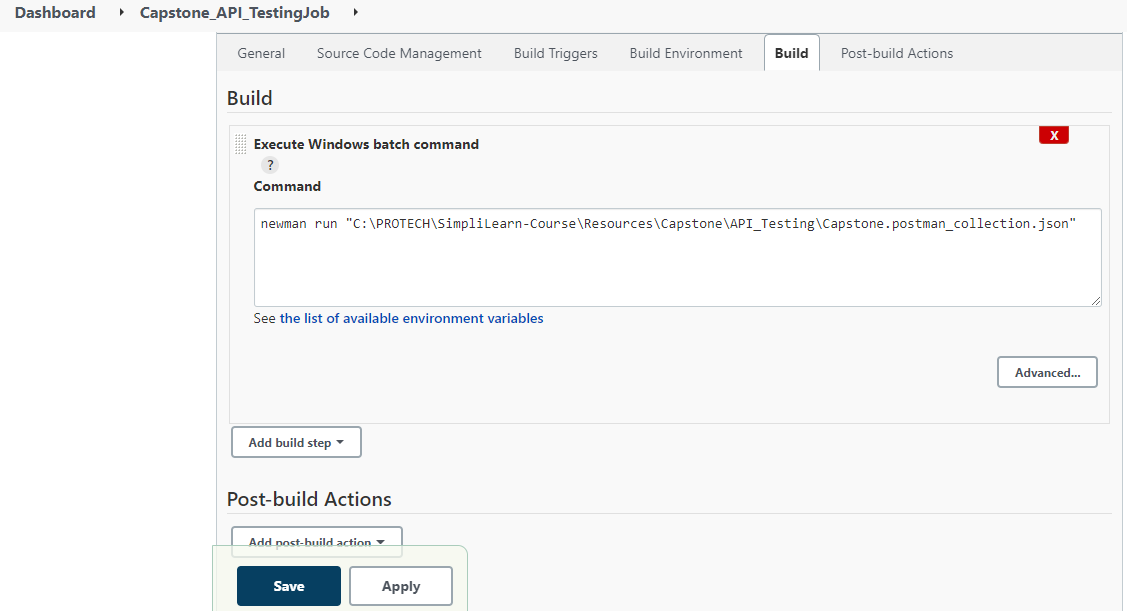


TestNG results in Jenkins

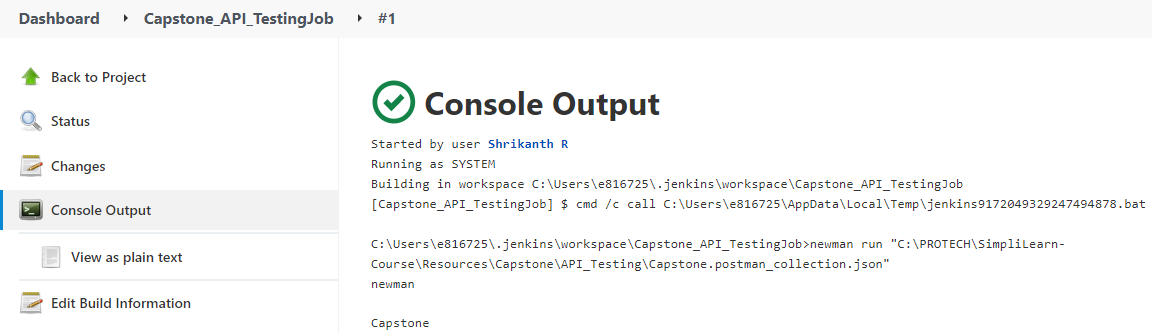


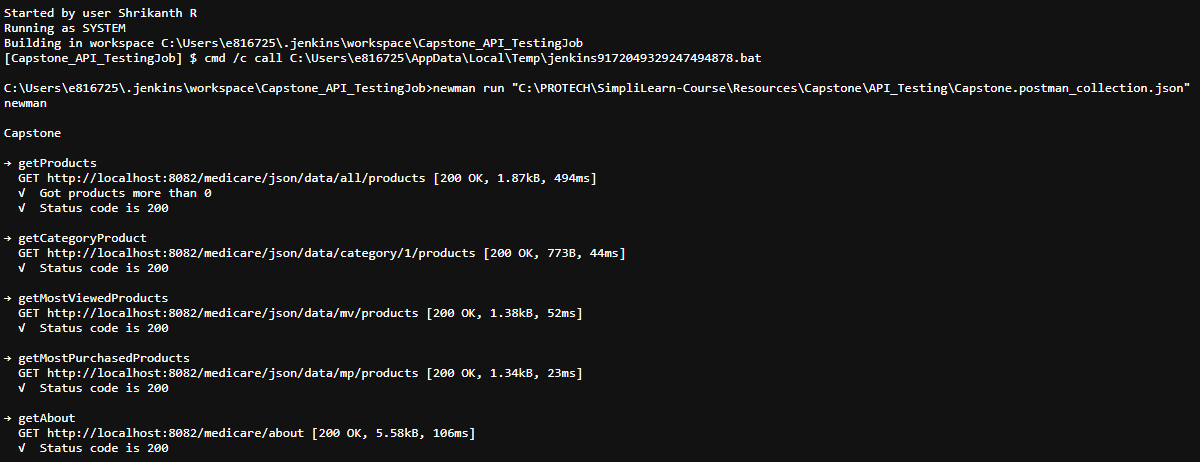
Creating API testing Jenkins job Capstone\_API\_TestingJob

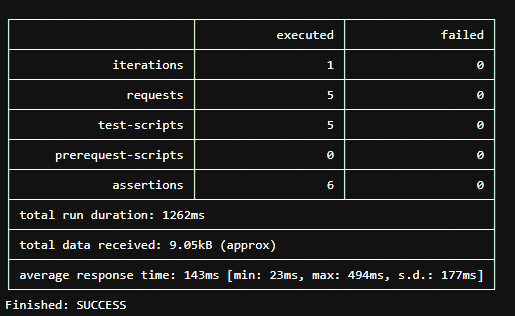




Build now job







Tester Details:

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Concepts used in this project:

* Page object design to store the web elements
* Writing Selenium scripts
* TestNG for running scripts
* Postman to create and run API test cases along with newman
* Jobs creation using Jenkins for CI/CD pipeline

Link to Github repository

<https://github.com/sgrajgire/SimpliLearn_Capstone.git>

Conclusion

Application has good interface where we can purchase medicine online at our convenience

Ease of payment methods and address selection or addition

Application can be improved with more consistent xpath creation. (Spelling mistake in some places with id and name attributes of elements ex: expityMonth instead of expiryMonth)

Admin can be provided with delete medicine option