CSC301 - Assignment 1
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Application details

Group: assignment-1-81-kaushikmurali01-hyeonjeongbyeon

Important Links Summarized

Assignment Repository:
https://github.com/csc301-fall-2021/assignment-1-81-kaushikmurali01-hyeonjeongbyeon

Environments

(1) Development Environment:
http://checkoutcalculatortesting-env.eba-3imhvu24.us-east-2.elasticbeanstalk.com/

(2) Production Environment:
Checkoutcalculator-env.eba-s2eq4spd.us-east-2.elasticbeanstalk.com

Video rundown explaining functionality of web app:
https://www.youtube.com/watch?v=UjxIrOY6X0A&ab_channel=XOsKeLeToN

Video explaining CICD and deployment:
https://www.youtube.com/watch?v=tJop3hY5gZI&ab_channel=XOsKeLeToN

Application Usage and Functionalities

The page will be divided into 2 panels. The first panel on the left contains:

1. A dropdown menu which says ‘Select Item’. You can select any item that you want to add to your cart.
2. You can change the quantity of the item by clicking the + button if you want to increase the quantity by one or the - button if you want to decrease the quantity by one.
3. You can add a discount for each group of items that you are going to add to your cart.
4. If you want to add the item to your cart, click the button ‘Add Item to Cart’.
5. Once you click the add item to cart button, you should see your item and its details displayed on the second panel on the right.

One the second panel on the right:

1. You will see the items in your cart. You will be able to see for every item, row by row, details such as the product name, product quantity, product price, discount applied and subtotal.
2. You will also see a trash can image for each product in the cart. If you click that image, then the item will be removed from the cart.
3. The overall total can be seen below the details for each item. This total constantly updates when you add items to the cart and remove items from the cart.
4. There is also a label at the top of the panel that shows you how many items you have in your cart.

At the top right of the web page, you will be able to see a button 'Login to Dashboard'. If you click that button it takes you to another page, which shows you the list of products on sale along with their details.

There is a button on the top right of the page called 'Back to Shopping Cart', that takes you back to the previous shopping cart page. There is also another button called 'Add Product' that lets you add a product by removing the list of items and instead showing you a form which you can fill up to add a product of your choice. If you click the 'Product List' button which is above the 'Add product' button, it will display the updated list of products. You can then go back to the shopping cart and see that the product you added is in the dropdown list of items and you can add this item to your cart as well.

Video: https://www.youtube.com/watch?v=UjxIrOY6X0A&ab_channel=XOsKeLeToN

Web Application Local Testing

If you download the project from github, then to run it on your computer, you will need to download the Eclipse IDE and then do the following steps:

1. Download apache tomcat 8.5 or higher
2. Configure tomcat server in eclipse IDE
   Useful video tutorial: https://www.youtube.com/watch?v=PH-bK3g2YmU
3. Download and install Java 11 or higher
   Instructions:
   https://www.codejava.net/java-se/download-and-install-java-11-openjdk-and-oracle-jdk

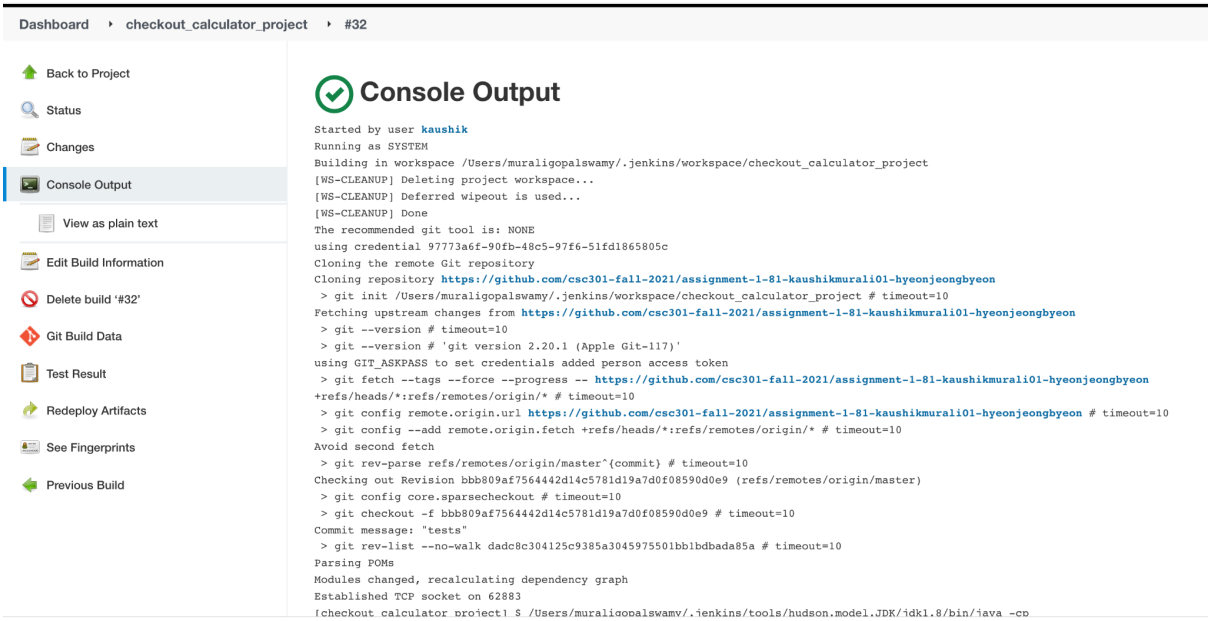
Once you set up everything, you will need to open a maven project and copy all the files into the new maven project you created.

To run on localhost, start the Tomcat server and then go to your browser and go to the URL: localhost:8080/<project-name>

Web Application CI/CD and Deployment

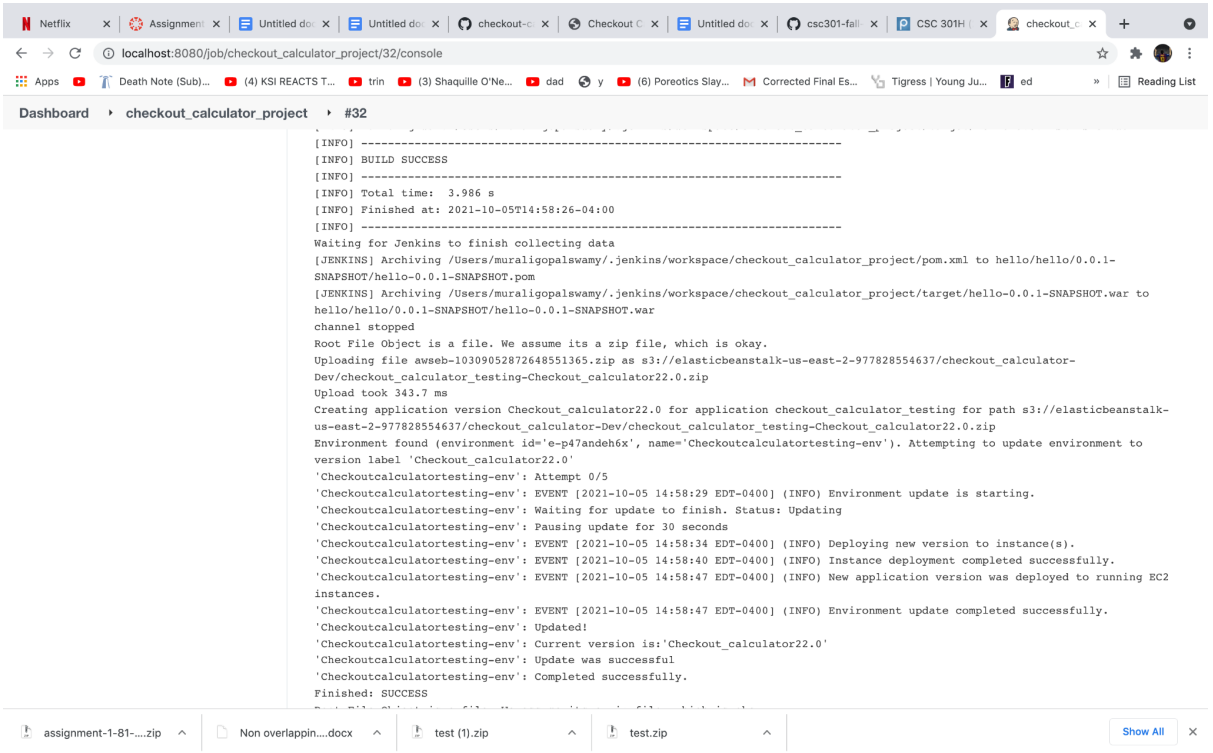
Our web app uses Jenkins to do the CI/CD. All the steps are shown in the video below.
https://www.youtube.com/watch?v=tJop3hY5gZI&ab_channel=XOsKeLeToN

Here are some screenshots of our latest build.

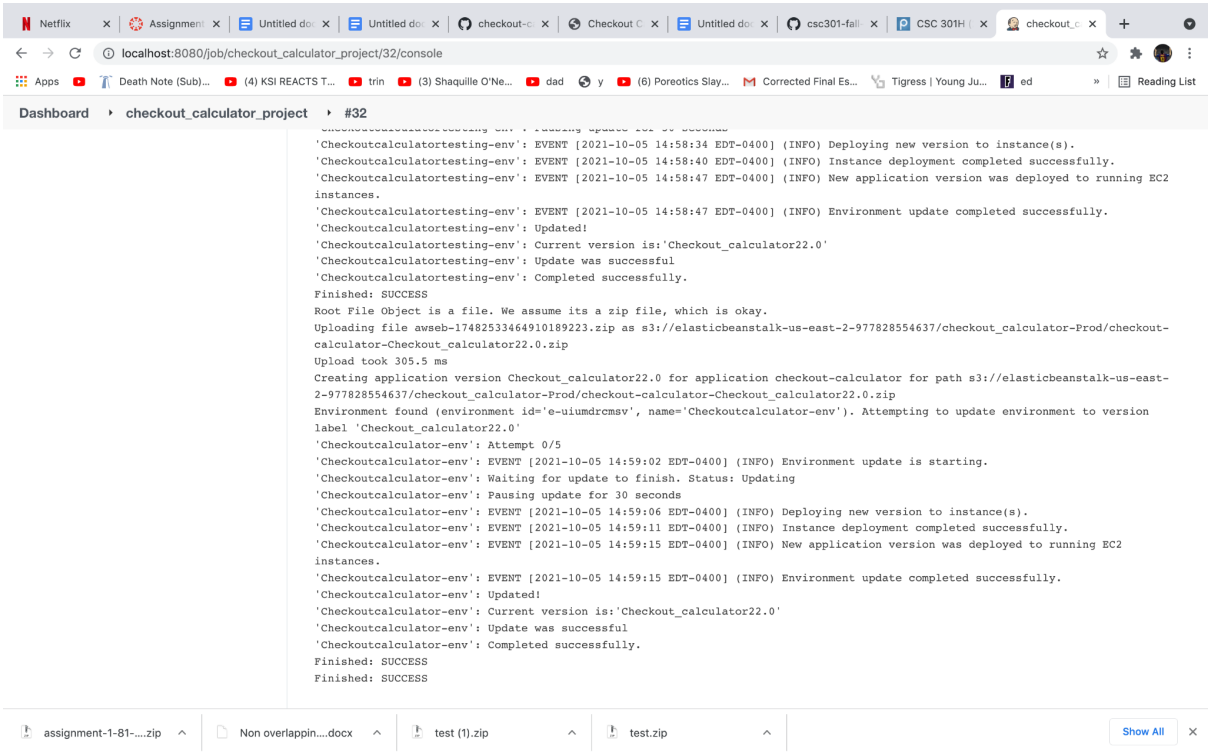


The tick check mark shows that the build was successful. If you zoom in you can see that when we pushed, the build started running and pulled from our git repository.

If you zoom into the screenshot, you can see that the build automatically runs our JUnit test and passes.



After running the tests, it starts to deploy the master branch to the staging server (development environment) called Checkoutcalculatortesting-env.
Development Environment:
http://checkoutcalculatortesting-env.eba-3imhvu24.us-east-2.elasticbeanstalk.com/



Then it deploy the master branch to the production server (production environment) called Checkoutcalculator-env.
Production Environment:

Checkoutcalculator-env.eba-s2eq4spd.us-east-2.elasticbeanstalk.com