

MINIPROJECT-1

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Branch: MCA (CC & DEVOPS)

Section/Group: 23MCD-1 /A

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Subject Name: Devops Process Automation

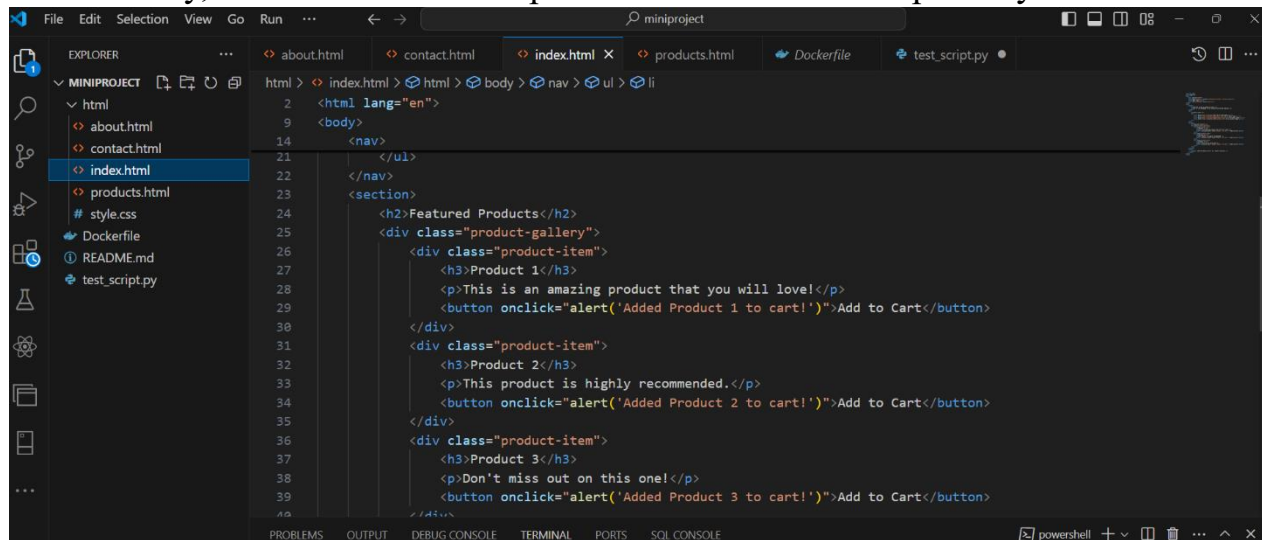
Subject Code: 23CAH-731

1. Aim/Overview of the practical:

- Build and Deploy an E-commerce website Through a Jenkins pipeline.

2. Step for the Practical:

- Firstly, create a website and push it into the GitHub repository.

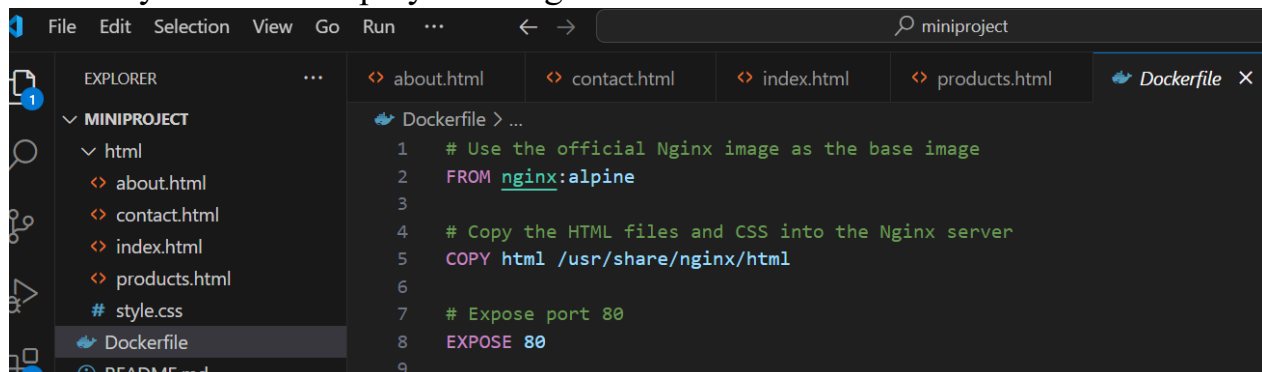


```

1  <html lang="en">
2  <body>
3
4  <nav>
5    <ul>
6      <li><a href="#home">Home</a></li>
7      <li><a href="#about">About</a></li>
8      <li><a href="#products">Products</a></li>
9      <li><a href="#contact">Contact</a></li>
10   </ul>
11 </nav>
12
13 <section>
14   <h2>Featured Products</h2>
15   <div class="product-gallery">
16     <div class="product-item">
17       <h3>Product 1</h3>
18       <p>This is an amazing product that you will love!</p>
19       <button onclick="alert('Added Product 1 to cart!')">Add to Cart</button>
20     </div>
21     <div class="product-item">
22       <h3>Product 2</h3>
23       <p>This product is highly recommended.</p>
24       <button onclick="alert('Added Product 2 to cart!')">Add to Cart</button>
25     </div>
26     <div class="product-item">
27       <h3>Product 3</h3>
28       <p>Don't miss out on this one!</p>
29       <button onclick="alert('Added Product 3 to cart!')">Add to Cart</button>
30     </div>
31   </div>
32 </section>
33 </body>
34 </html>

```

- Similarly create a multiple page for the website.
- If you want to deploy it through the Docker then create a Docker file as well.

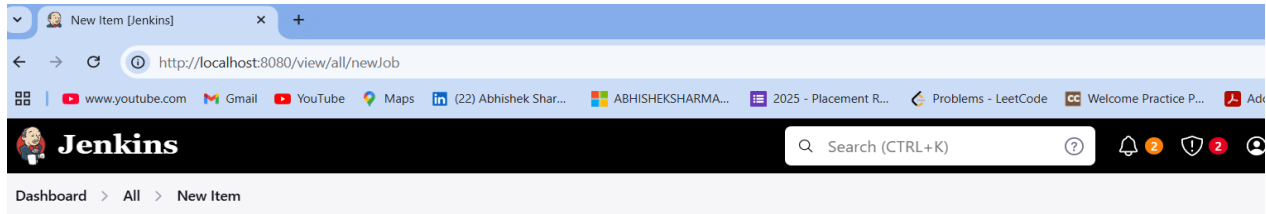


```

1  # Use the official Nginx image as the base image
2  FROM nginx:alpine
3
4  # Copy the HTML files and CSS into the Nginx server
5  COPY html /usr/share/nginx/html
6
7  # Expose port 80
8  EXPOSE 80
9

```

- Now open the github and copy the URL of the repository to use in Jenkins CI/CD pipeline for the Automated process.
- Open the Jenkins through localhost and create a pipeline project



New Item

Enter an item name

Select an item type



Freestyle project

Classic, general-purpose job type that checks out from up to one SCM, executes build steps serially, followed by post-build steps like archiving artifacts and sending email notifications.



Maven project

Build a maven project. Jenkins takes advantage of your POM files and drastically reduces the configuration.



Pipeline

Orchestrates long-running activities that can span multiple build agents. Suitable for building pipelines (formerly known as workflows) and/or organizing complex activities that do not easily fit in free-style job type.



Multi-configuration project

Suitable for projects that need a large number of different configurations, such as testing on multiple environments.

OK

- After that add description about the project and in the github section add repository URL.
- Now below sections add Jenkins script to build and deploy.

Dashboard > MiniProject1 > Configuration

Configure

General

Advanced Project Options

Pipeline

Pipeline

Definition

Pipeline script

Script ?

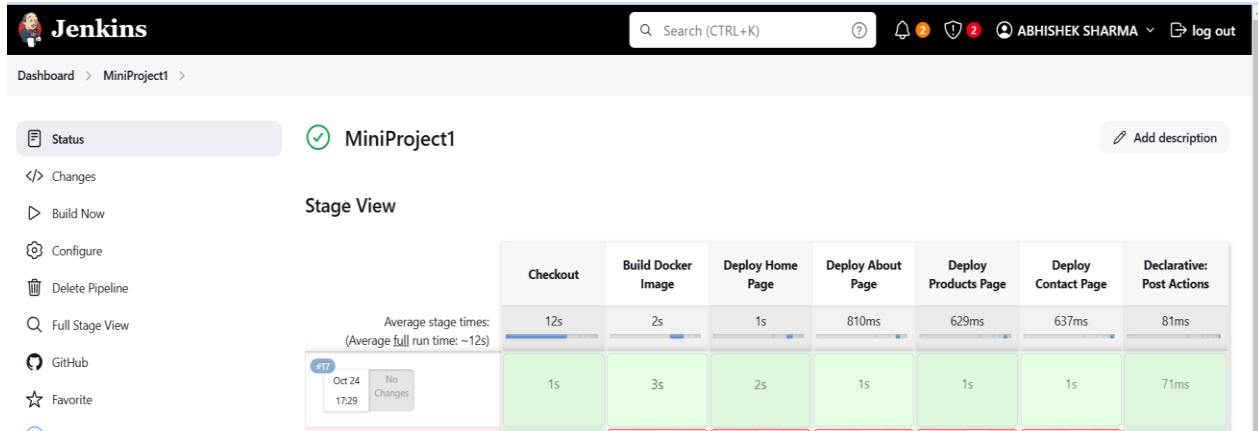
```

14 // Build the Docker image
15 bat 'docker build -t my-ecommerce-website .'
16 }
17 }
18 }
19
20 stage('Deploy Home Page') {
21     steps {
22         script {
23             // Deploy the Home page
24             bat 'docker stop my-ecommerce-home || exit 0'
25             bat 'docker rm my-ecommerce-home || exit 0'
26             bat 'docker run -d --name my-ecommerce-home -p 8081:80 my-ecommerce-website'
27         }
28     }
29 }
30 stage('Deploy About Page') {

```

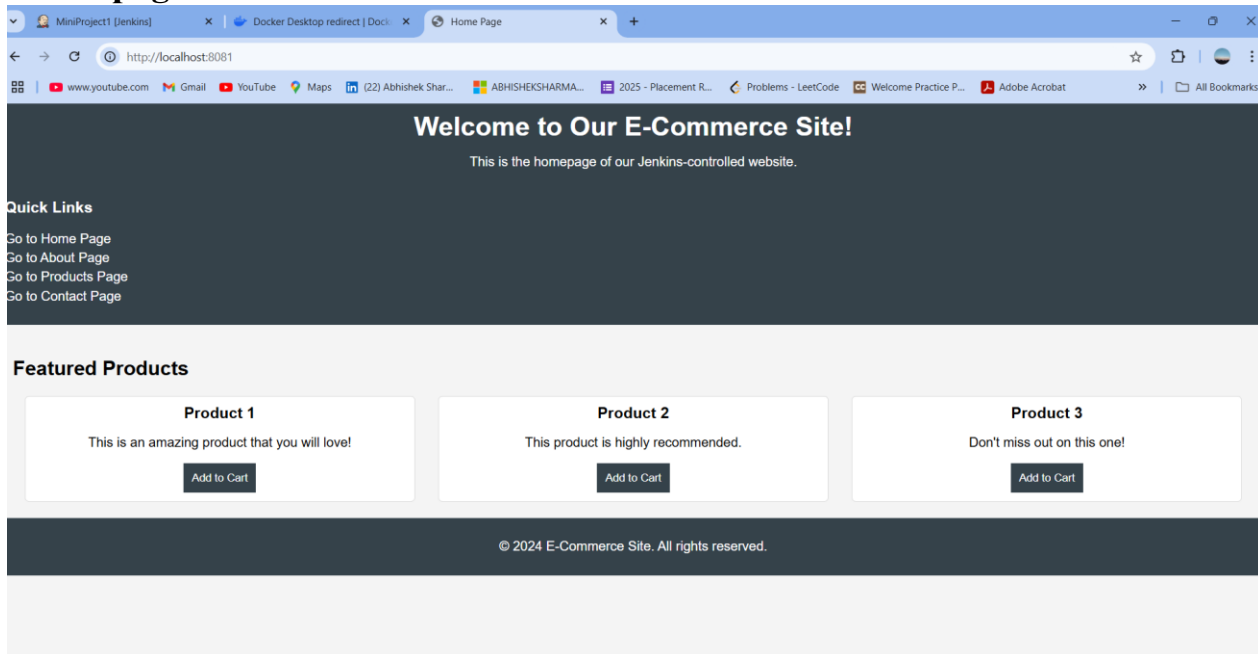
☒ Use Groovy Sandbox ?

- Save and build now the project or in the stage view section we can see the output.



- Now open the browser URL, write localhost and port number and see the output that my E- commerce website is running or not.

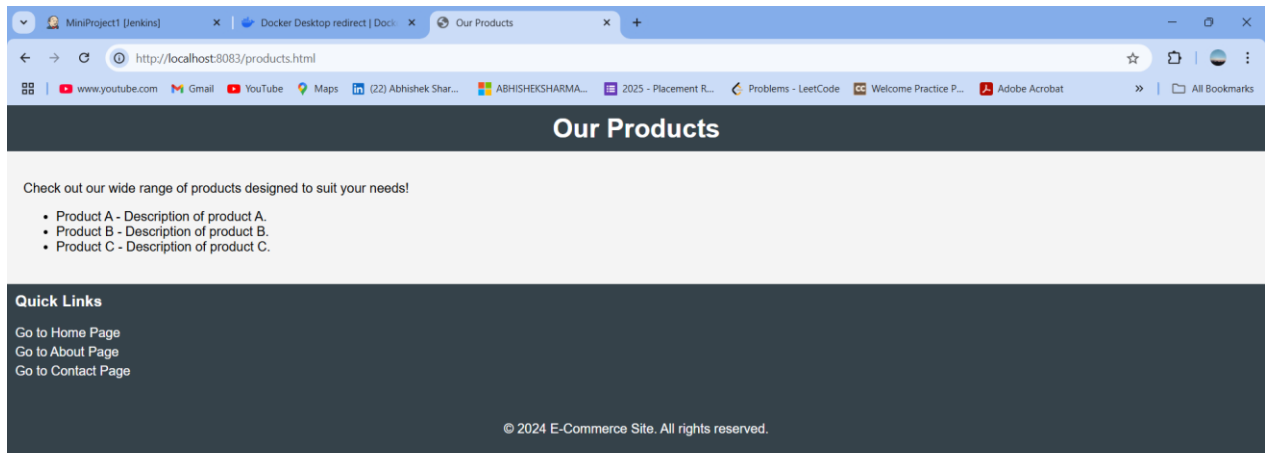
Home page



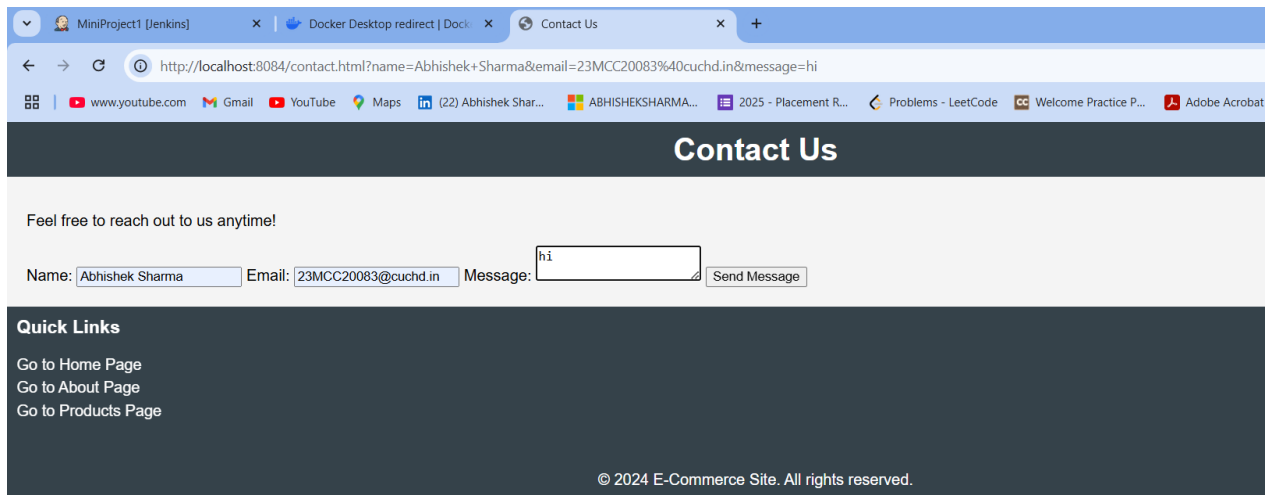
The screenshot shows a web browser displaying the 'Home Page' of an E-commerce site at 'http://localhost:8081'. The page has a dark header with the text 'Welcome to Our E-Commerce Site!' and 'This is the homepage of our Jenkins-controlled website.' Below the header, there is a 'Quick Links' section with links to 'Go to Home Page', 'Go to About Page', 'Go to Products Page', and 'Go to Contact Page'. The main content area features 'Featured Products' with three product cards: 'Product 1' (This is an amazing product that you will love!), 'Product 2' (This product is highly recommended.), and 'Product 3' (Don't miss out on this one!). Each card has an 'Add to Cart' button. The footer contains the copyright notice '© 2024 E-Commerce Site. All rights reserved.'

- if I click on the product page in the quick section, then product webpage will open.
- Similarly in the quick section, we can open other pages and came back to previous pages.

Product page



Contact page



6. Repository Link: <https://github.com/abhishek0083/DevopsMiniProject1>

3.Learning Outcomes (What I have learned)

I Learned to: -

- How to build and deploy the ecommerce website using a Jenkins pipeline.