

# **CAPSTONE PROJECT**

## **SHOP FOR HOME**

### **TEAM MEMBERS**

**Atyam Bindu sri  
Valmeekam Navya  
Bonala Navya Sree  
Saurav Rajput  
Shaik Razia Sultana  
Chetan Borate**

**Supervised By: -**

**Mr. Neeraj Kumar Kheria**

**Mentor**

## **ACKNOWLEDGEMENT**

We have taken a lot of effort into this project. However, completing this project wouldn't have been possible without the support and guidance of a lot of individuals. We would like to extend our sincere thanks to all of them.

We are highly indebted to Mr. KiranKumar Kurra for their guidance and supervision. We would like to thank him for providing the necessary information and resources for this project.

We would like to express our gratitude towards our parents & our friends for their kind-cooperation and encouragement which helped us a lot in completing this project.

Our thanks and appreciation also go to our colleague in developing the project. Thank you to all the people who have willingly helped us out with their abilities.

### **Team members**

**Atyam Bindu sri  
Valmeekam Navya  
Bonala Navya Sree  
Saurav Rajput  
Shaik Razia Sultana  
Chetan Borate**

## **Table of Contents**

- Abstract
- Introduction
- Project definition
- Design and development environment
  - Front-end
  - Back-end
  - Database
- Database Design
- Design and Implementation of the Site
- Installation Steps
- Conclusion

## **Abstract:**

E-commerce is a business process over a computer network. A person sitting in a chair in front of a computer can access all the features of the Internet to buy and sell products. Unlike traditional commerce, which is physically done by human effort to obtain a product, e-commerce has made it easier for people to reduce manual labor and save time.

Although e-commerce, which began in the early 1990s, has made great strides in the computer world, it has been security that has hindered the growth of e-commerce. Security is a challenge facing e-commerce today, and there are still many advances in security. The main advantage of e-commerce over traditional commerce is the user can browse online shops, compare prices and order merchandise sitting at home on their PC.

An online shopping system that permits a customer to submit online orders for items and/or services from a store that serves both walk-in customers and online customers. The online shopping system presents an online display of an order cut off time and an associated delivery window for items selected by the customer. The system accepts the customer's submission of a purchase order for the item in response to a time of submission being before the order cut off time. The online shopping system does not settle with a credit supplier of the customer until the item selected by the customer is picked from inventory but before it is delivered. Therefore, customers can go online and change their orders.

## **Introduction:**

Online shopping is a form of e-commerce that allows consumers to purchase goods and services directly from sellers over the Internet using a web browser or mobile app. Consumers are interested in products by visiting the retailer's website directly or by browsing alternative suppliers using a shopping search engine that displays the availability and price of the same product at different e-retailers.

As of 2020, customers will be able to shop online using a variety of computers and devices, including desktop computers, laptops, tablets and smartphones. Online stores are reminiscent of the physical analogy of buying a product or service at a regular retail store or mall. This process is known as B2C (Business-to-Consumer) online shopping. If an online store is set up so that a company can make purchases from other companies, the process is called business-to-business (B2B) online shopping. In a typical online store, customers can browse the company's various products and services, and view product photos and images along with information about product specifications, features, and prices.

Online stores usually allow buyers to use the "search feature" to find a particular model, brand, or item. Online customers must have internet access and a valid payment method to complete the transaction. Services such as credit cards, Interact-enabled debit cards, or PayPal. For physical items (such as paperbacks and clothing), the retailer ships the item to the customer. For digital products such as digital audio files for songs and software, retailers typically send the files to customers over the Internet. The largest of these online retailers are Alibaba, Amazon.com and eBay.

# Capstone Project

## Project Name - ShopForHome

**Problem Statement:** ShopForHome is a popular Store in the market for shopping the home décor stuff .Due to Covid 19 all the offline shopping stopped. So, the store wants to move to the online platforms and wants their own web application.

There are 2 users on the application: -

1. User
2. Admin

### User Stories –

1. As a user I should be able to login, Logout and Register into the application.
2. As a user I should be able to see the products in different categories.
3. As a user I should be able to sort the products.
4. As a user I should be able to add the products into the shopping cart.
5. As a user I should be able to increase or decrease the quantity added in the cart.
6. As a user I should be able to add “n” number of products in the cart.
7. As a user I should be able to get the Wishlist option where I can add those products which I want but don’t want to order now
8. As a user I should get different discount coupons.

### Admin Stories –

1. As an Admin I should be able to login, Logout and Register into the application.
2. As an Admin I should be able to perform CRUD on Users.
3. As an Admin I should be able to Perform CRUD on the products.
4. As an Admin I should be able to get bulk upload option to upload a csv for products details
5. As an Admin I should be able to get the stocks.
6. As an Admin I should be able to mail if any stock is less than 10.
7. As an Admin I should be able to get the sales report of a specific duration.
8. As an Admin I should be able to set the discount coupons for the specific set of users 1. Please use a folder on server to upload the images

### Instructions –

1. Please use a folder on server to upload the images
2. Please share the database structure in the .sql file.
3. Please create a separate microservice for reports and discount coupons.
4. Please use separate port to deploy the Angular UI and Spring Boot Microservice
5. Please use the UI designing tool like (Bootstrap or Material) to make your UI better
6. Please use Material UI to create the UI.

# **Design and development environment:**

## **Front-end**

The frontend of a website describes the part that the visitor can see. It includes all displayed content that is visible to public or logged-in users.

The frontend is often called the GUI (Graphical User Interface) because it is the interface that the visitors can see and use. The frontend is mainly used to display various types of content and make the user's input available to the backend. The displayed content includes the basic structure of the website, such as the navigation. The frontend includes texts, graphics, videos, and other media.

## **Html 5**

The Hypertext Markup Language or HTML is the standard markup language for documents designed to be displayed in a web browser. It can be assisted by technologies such as Cascading Style Sheets (CSS) and scripting languages such as JavaScript.

Web browsers receive HTML documents from a web server or from local storage and render the documents into multimedia web pages. HTML describes the structure of a web page semantically and originally included cues for the appearance of the document.

HTML elements are the building blocks of HTML pages. With HTML constructs, images and other objects such as interactive forms may be embedded into the rendered page. HTML provides a means to create structured documents by denoting structural semantics for text such as headings, paragraphs, lists, links, quotes and other items. HTML elements are delineated by tags, written using angle brackets. Tags such as `<img />` and `<input />` directly introduce content into the page. Other tags such as `<p>` surround and provide information about document text and may include other tags as sub-elements. Browsers do not display the HTML tags but use them to interpret the content of the page.

## CSS

Cascading Style Sheets (CSS) is a style sheet language used for describing the presentation of a document written in a markup language such as HTML or XML (including XML dialects such as SVG, MathML or XHTML). CSS is a cornerstone technology of the World Wide Web, alongside HTML and JavaScript.

CSS is designed to enable the separation of presentation and content, including layout, colours, and fonts. This separation can improve content accessibility; provide more flexibility and control in the specification of presentation characteristics; enable multiple web pages to share formatting by specifying the relevant CSS in a separate

.CSS file, which reduces complexity and repetition in the structural content; and enable the .CSS file to be cached to improve the page load speed between the pages that share the file and its formatting.

## **Angular JS:**

AngularJS was a JavaScript-based open-source front-end web framework for developing single-page applications. It was maintained mainly by Google and a community of individuals and corporations. It aimed to simplify both the development and testing of such applications by providing a framework for client-side model–view– controller (MVC) and model–view–view model (MVVM) architectures, along with components commonly used in web applications and progressive web applications.

AngularJS was used as the frontend of the MEAN stack, that consisted of MongoDB database, Express.js web application server framework, AngularJS itself (or Angular), and Node.js server runtime environment.

## **Back-end**

The backend to a website is pretty much everything the user can't see. Generally, this means the programming that generates pages that the user views, creating the "server-side" content of the site. This could be scripts, directives, databases, and other automated functions the server performs.

Back-end development includes the server implementation and it more on the logical interaction of data, how it is stored, and transmitted.

## **Java**

Java is a high-level, class-based, object-oriented programming language that is designed to have as few implementation dependencies as possible. It is a general-purpose programming language intended to let programmers write once, run anywhere (WORA), meaning that compiled Java code can run on all platforms that support Java without the need to recompile. Java applications are typically compiled to bytecode that can run on any Java virtual machine (JVM) regardless of the underlying computer architecture. The syntax of Java is similar to C and C++, but has fewer low-level facilities than either of them. The Java runtime provides dynamic capabilities (such as reflection and runtime code modification) that are typically not available in traditional compiled languages. As of 2019, Java was one of the most popular programming languages in use according to GitHub, particularly for client–server web applications, with a reported 9 million developers.

Java was originally developed by James Gosling at Sun Microsystems and released in May 1995 as a core component of Sun Microsystems' Java platform. The original and reference implementation Java compilers, virtual machines, and class libraries were originally released by Sun under proprietary licenses. As of May 2007, in compliance with the specifications of the Java Community Process, Sun had relicensed most of its Java technologies under the GPL-2.0-only license. Oracle offers its own HotSpot Java Virtual Machine, however the official reference implementation is the OpenJDK JVM which is free open-source software and used by most developers and is the default JVM for almost all Linux distributions

## **Database:**

In computing, a database is an organized collection of data stored and accessed electronically. Small databases can be stored on a file system, while large databases are hosted on computer clusters or cloud storage. The design of databases spans formal techniques and practical considerations including data modeling, efficient data representation and storage, query languages, security and privacy of sensitive data, and distributed computing issues including supporting concurrent access and fault tolerance.

A database management system (DBMS) is the software that interacts with end users, applications, and the database itself to capture and analyze the data. The DBMS software additionally encompasses the core facilities provided to administer the database. The sum total of the database, the DBMS and the associated applications can be referred to as a database system. Often the term "database" is also used loosely to refer to any of the DBMS, the database system or an application associated with the database.

## **MySQL:**

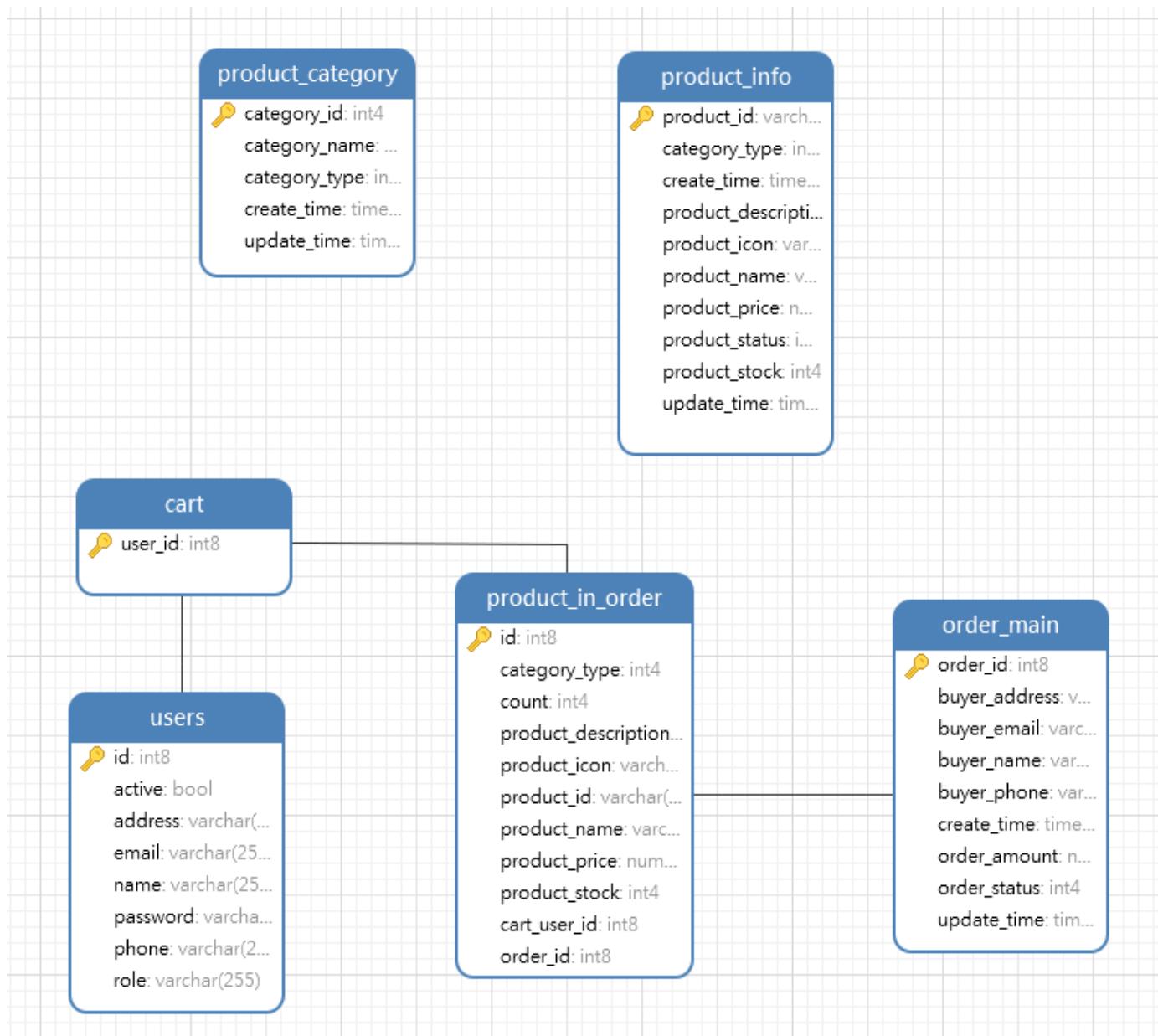
MySQL is an open-source relational database management system (RDBMS). Its name is a combination of "My", the name of co-founder Michael Widenius's daughter, and "SQL", the abbreviation for Structured Query Language. A relational database organizes data into one or more data tables in which data may be related to each other; these relations help structure the data. SQL is a language programmers use to create, modify and extract data from the relational database, as well as control user access to the database. In addition to relational databases and SQL, an RDBMS like MySQL works with an operating system to implement a relational database in a computer's storage system, manages users, allows for network access and facilitates testing database integrity and creation of backups.

## **AWS**

Amazon Web Services (AWS) is the world's most comprehensive and broadly adopted cloud platform, offering over 200 fully featured services from data centers globally. Millions of customers—including the fastest-growing startups, largest enterprises, and leading government agencies—are using AWS to lower costs, become more agile, and innovate faster. AWS is designed to allow application providers, ISVs, and vendors to quickly and securely host your applications.

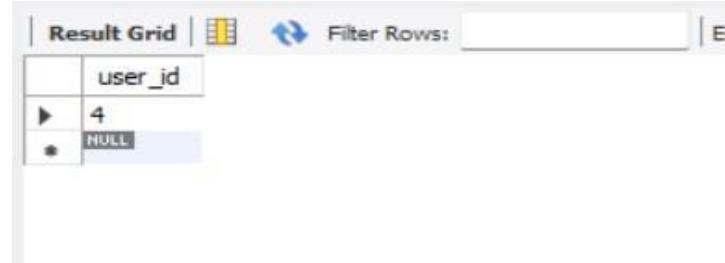
# Database Design:

## Database Schema:



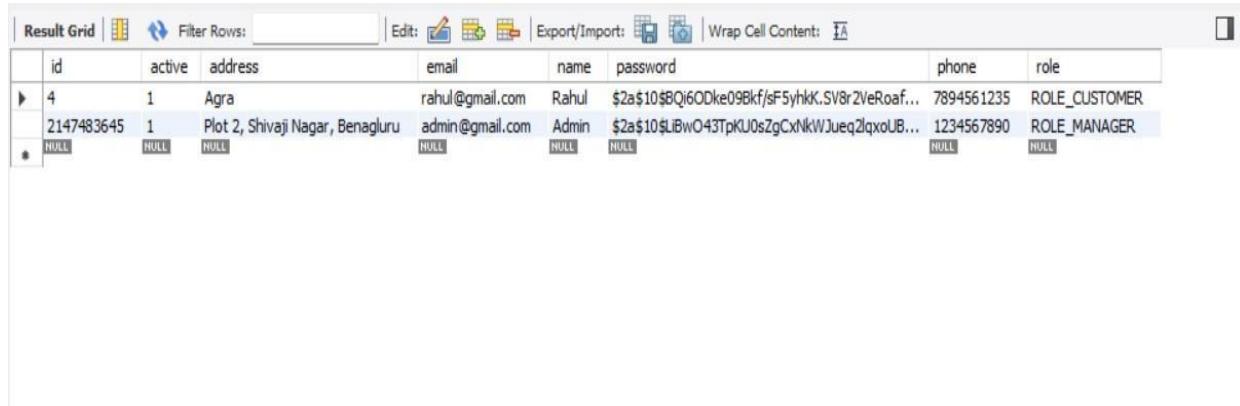
## **Database Tables:**

### **Cart Table:**



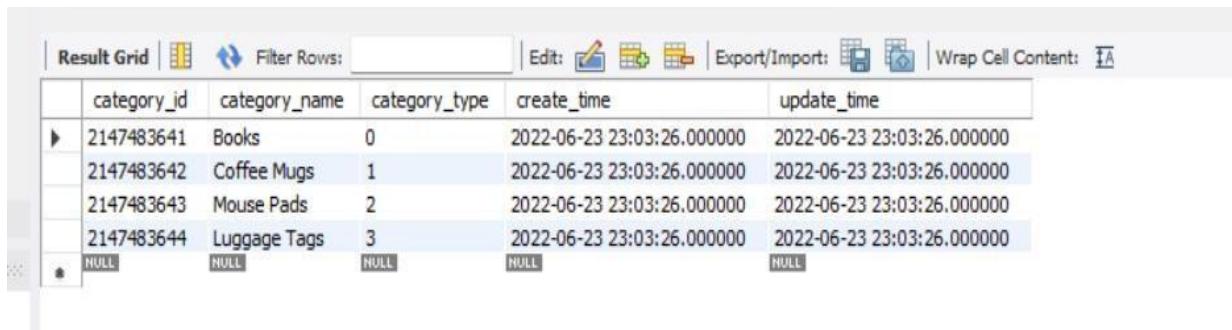
	user_id
▶	4
*	NULL

### **Users Table:**



	id	active	address	email	name	password	phone	role
▶	4	1	Agra	rahul@gmail.com	Rahul	\$2a\$10\$BQj6ODke09Bkf/sF5yhkK.SV8r2VeRoaf...	7894561235	ROLE_CUSTOMER
	2147483645	1	Plot 2, Shivaji Nagar, Benagluru	admin@gmail.com	Admin	\$2a\$10\$LBwO43TpKU0sZgCxNkWJueq2lqxoUB...	1234567890	ROLE_MANAGER
*	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL

### **Product Category Table:**



	category_id	category_name	category_type	create_time	update_time
▶	2147483641	Books	0	2022-06-23 23:03:26.000000	2022-06-23 23:03:26.000000
	2147483642	Coffee Mugs	1	2022-06-23 23:03:26.000000	2022-06-23 23:03:26.000000
	2147483643	Mouse Pads	2	2022-06-23 23:03:26.000000	2022-06-23 23:03:26.000000
	2147483644	Luggage Tags	3	2022-06-23 23:03:26.000000	2022-06-23 23:03:26.000000
*	NULL	NULL	NULL	NULL	NULL

## Product Info Table:

Result Grid		Filter Rows:	Edit:	Export/Import:	Wrap Cell Content:	
product_id	category_type	create_time	product_description	product_icon	product_name	
BOOK-TECH-1000	0	2022-07-08 10:19:05.000000	Learn Python at your own pace. The author ex...	assets/images/products/books/book-luv2code-1...	Crash Course	
BOOK-TECH-1001	0	2022-07-08 10:19:05.000000	Learn JavaScript at your own pace. The author ...	assets/images/products/books/book-luv2code-1...	Become a Gui	
BOOK-TECH-1002	0	2022-07-08 10:19:05.000000	Learn Vue.js at your own pace. The author expl...	assets/images/products/books/book-luv2code-1...	Exploring Vue	
BOOK-TECH-1003	0	2022-07-08 10:19:05.000000	Learn Big Data at your own pace. The author e...	assets/images/products/books/book-luv2code-1...	Advanced Te	
BOOK-TECH-1004	0	2022-07-08 10:19:05.000000	Learn Big Data at your own pace. The author e...	assets/images/products/books/book-luv2code-1...	Crash Course	
BOOK-TECH-1005	0	2022-07-08 10:19:05.000000	Learn JavaScript at your own pace. The author ...	assets/images/products/books/book-luv2code-1...	JavaScript C	
BOOK-TECH-1006	0	2022-07-08 10:19:05.000000	Learn SQL at your own pace. The author explai...	assets/images/products/books/book-luv2code-1...	Beginners Gu	
BOOK-TECH-1007	0	2022-07-08 10:19:05.000000	Learn JavaScript at your own pace. The author ...	assets/images/products/books/book-luv2code-1...	Advanced Te	
BOOK-TECH-1008	0	2022-07-08 10:19:05.000000	Learn Spring Boot at your own pace. The autho...	assets/images/products/books/book-luv2code-1...	Introduction	
BOOK-TECH-1009	0	2022-07-08 10:19:05.000000	Learn React.js at your own pace. The author e...	assets/images/products/books/book-luv2code-1...	Become a Gui	
BOOK-TECH-1010	0	2022-07-08 10:19:05.000000	Learn Data Science at your own pace. The autho...	assets/images/products/books/book-luv2code-1...	Beginners Gu	

## **Product\_in\_order Table:**

Result Grid				Filter Rows:	Edit:	Export/Import:	Wrap Cell Content:
	id	category_type	count	product_description	product_icon	product_id	product_name
▶	5	0	1	Learn JavaScript at your own pace. The author ...	assets/images/products/books/book-luv2code-1...	BOOK-TECH-1001	Become a Guru in JavaScript
	7	0	1	Learn JavaScript at your own pace. The author ...	assets/images/products/books/book-luv2code-1...	BOOK-TECH-1001	Become a Guru in JavaScript
	10	3	1	This luggage tag will help you identify your lugg...	assets/images/products/luggagetags/luggageta...	LUGGAGETAG-1008	Luggage Tag - Water Fall
	11	0	1	Learn JavaScript at your own pace. The author ...	assets/images/products/books/book-luv2code-1...	BOOK-TECH-1007	Advanced Techniques in JavaScript
	24	3	1	This luggage tag will help you identify your lugg...	assets/images/products/luggagetags/luggageta...	LUGGAGETAG-1008	Luggage Tag - Water Fall
	25	1	1	Do you love mathematics? If so, then you need ...	assets/images/products/coffeemugs/coffeemug...	COFFEEMUG-1008	Coffee Mug - Tachyon
	26	2	1	Fractal images are amazing! You can now own a ...	assets/images/products/mousepads/mousepad...	MOUSEPAD-1007	Mouse Pad - Oak Cliff
	27	3	1	This luggage tag will help you identify your lugg...	assets/images/products/luggagetags/luggageta...	LUGGAGETAG-1007	Luggage Tag - Beauty
	28	1	1	Do you love mathematics? If so, then you need ...	assets/images/products/coffeemugs/coffeemug...	COFFEEMUG-1008	Coffee Mug - Tachyon
	29	3	1	This luggage tag will help you identify your lugg...	assets/images/products/luggagetags/luggageta...	LUGGAGETAG-1008	Luggage Tag - Water Fall
	31	0	1	Learn Spring Boot at your own pace. The autho...	assets/images/products/books/book-luv2code-1...	BOOK-TECH-1008	Introduction to Spring Boot

## Order main Table:

## Discount Table:

Result Grid | Filter Rows:

	id	status
▶	DEALS	0
	HOLIDAY	0
	NEWYEAR	0
	SAVE	0
*	NULL	NULL

## Wish list Table:

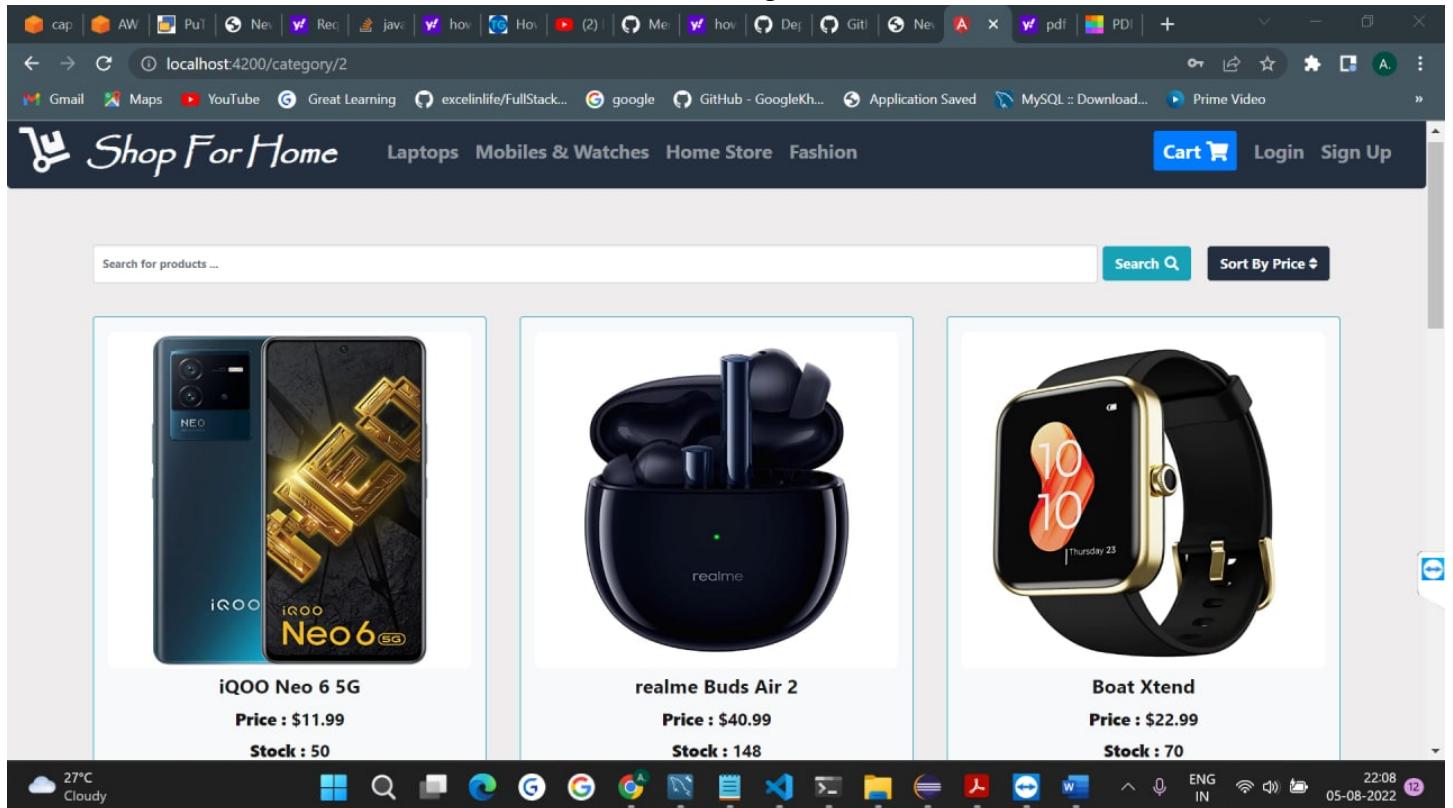
Result Grid | Filter Rows:  | Edit: | Export/Import: | Wrap Cell Content:

	id	created_date	user_id	product_id
▶	47	2022-07-09 21:12:05.211000	4	BOOK-TECH-1007
	59	2022-07-10 12:29:10.568000	4	LUGGAGETAG-1007
	60	2022-07-10 12:29:15.176000	4	MOUSEPAD-1007
	61	2022-07-10 12:29:20.010000	4	COFFEEMUG-1005
*	NULL	NULL	NULL	NULL

# Design and Implementation of the Site:

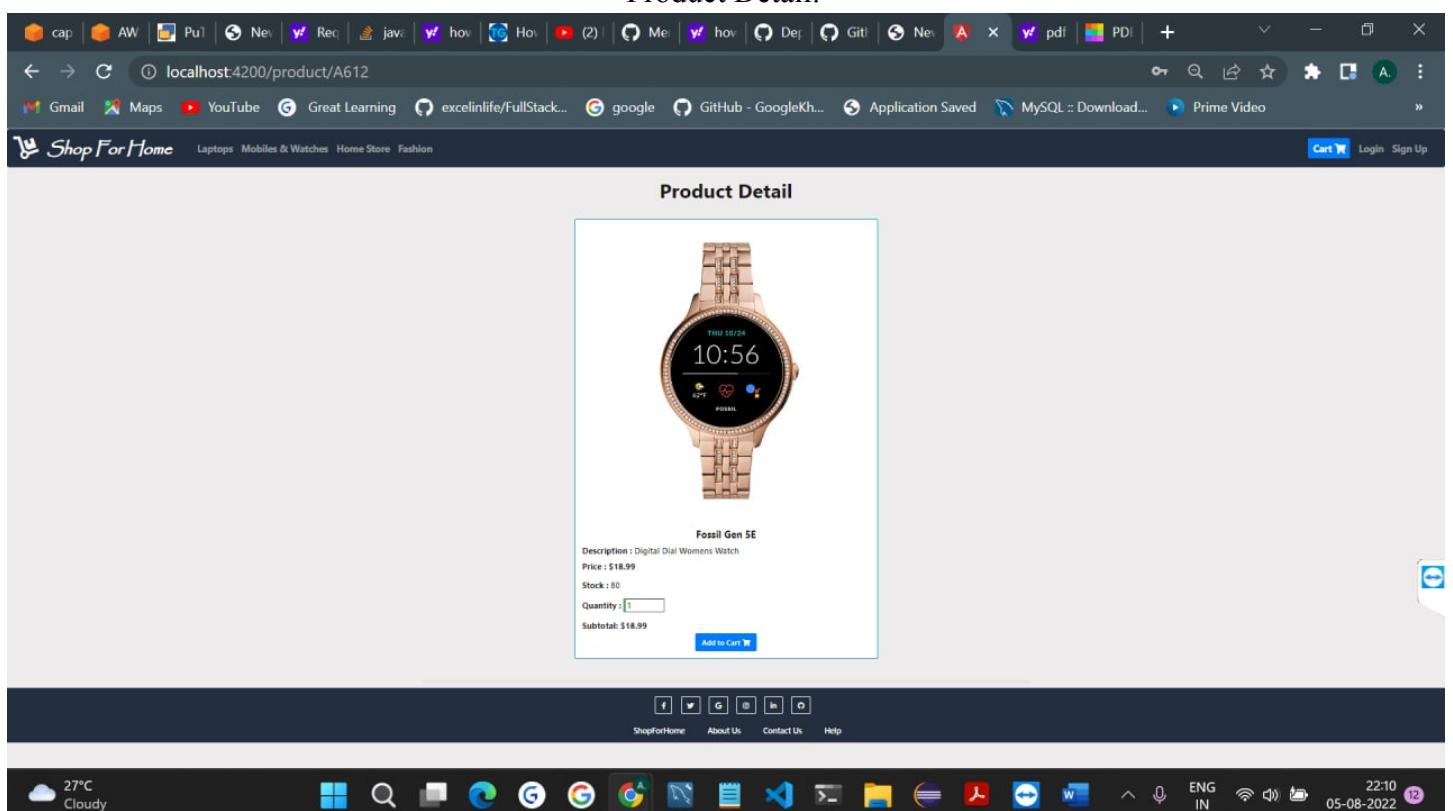
## User Pages:

### Home Page:



The screenshot shows the home page of the 'Shop For Home' website. At the top, there is a navigation bar with links for 'Laptops', 'Mobiles & Watches', 'Home Store', and 'Fashion'. Below the navigation bar is a search bar with the placeholder 'Search for products ...' and a 'Search' button. To the right of the search bar is a 'Sort By Price' button. The main content area displays a grid of three products: 'iQOO Neo 6 5G' (Price: \$11.99, Stock: 50), 'realme Buds Air 2' (Price: \$40.99, Stock: 148), and 'Boat Xtend' (Price: \$22.99, Stock: 70). Each product card includes an image, the product name, price, and stock level. The bottom of the screen shows a Windows taskbar with various icons and system status information.

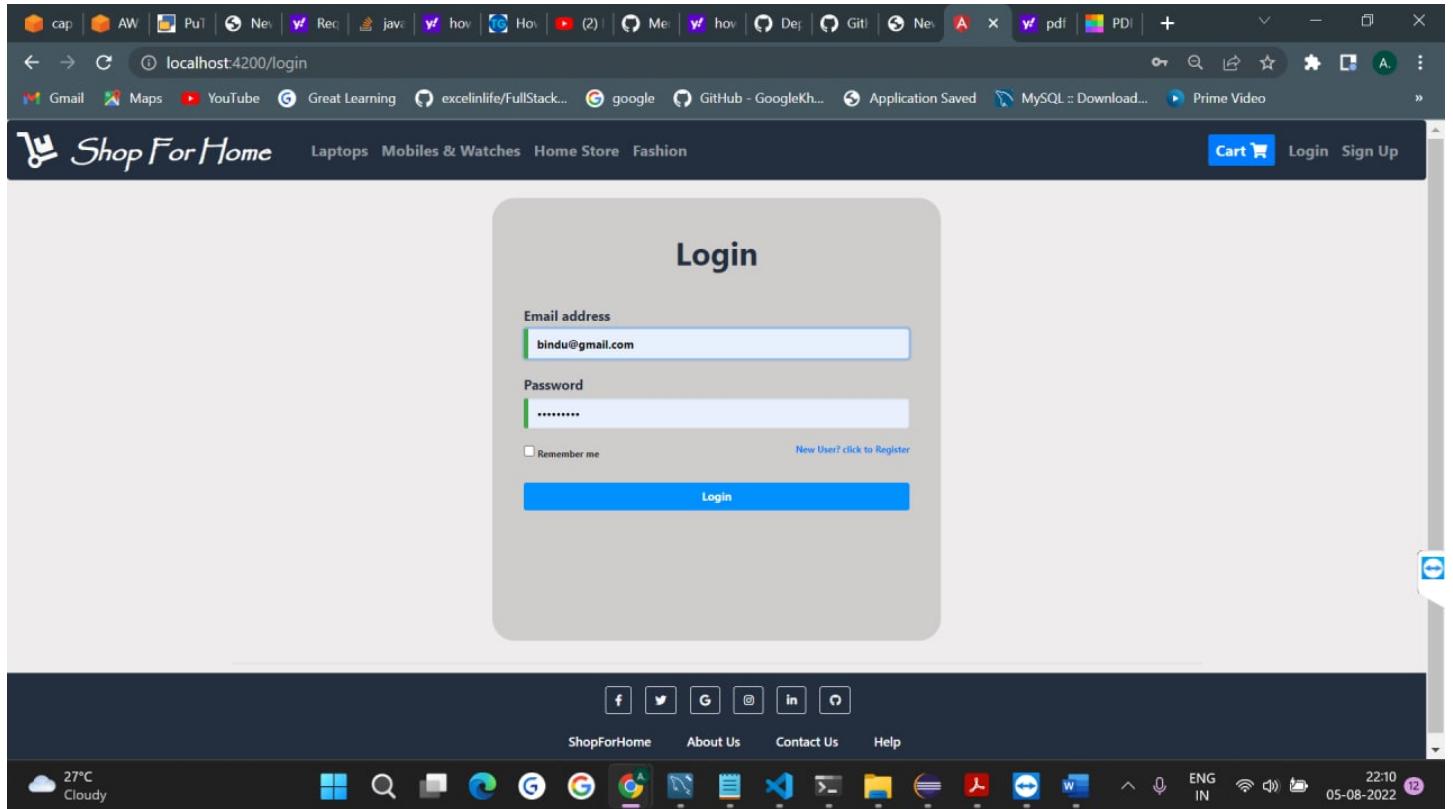
### Product Detail:



The screenshot shows the product detail page for a 'Fossil Gen 5E' smartwatch. The page title is 'Product Detail'. The product image shows a rose gold smartwatch with a round face and a metal bracelet. Below the image, the product name 'Fossil Gen 5E' is displayed, along with a description: 'Digital Dial Womens Watch'. The price is listed as \$18.99, and the stock level is 80. A quantity input field shows the value '1', and the subtotal is \$18.99. An 'Add to Cart' button is located at the bottom right. At the very bottom of the page, there is a footer with links for 'About Us', 'Contact Us', and 'Help', along with social media icons for Facebook, Twitter, Google+, LinkedIn, and YouTube. The bottom of the screen shows a Windows taskbar with various icons and system status information.

## Login Page: (for both user and admin)

### USER



localhost:4200/login

ShopForHome Laptops Mobiles & Watches Home Store Fashion Cart Login Sign Up

**Login**

Email address: bindu@gmail.com

Password: \*\*\*\*\*

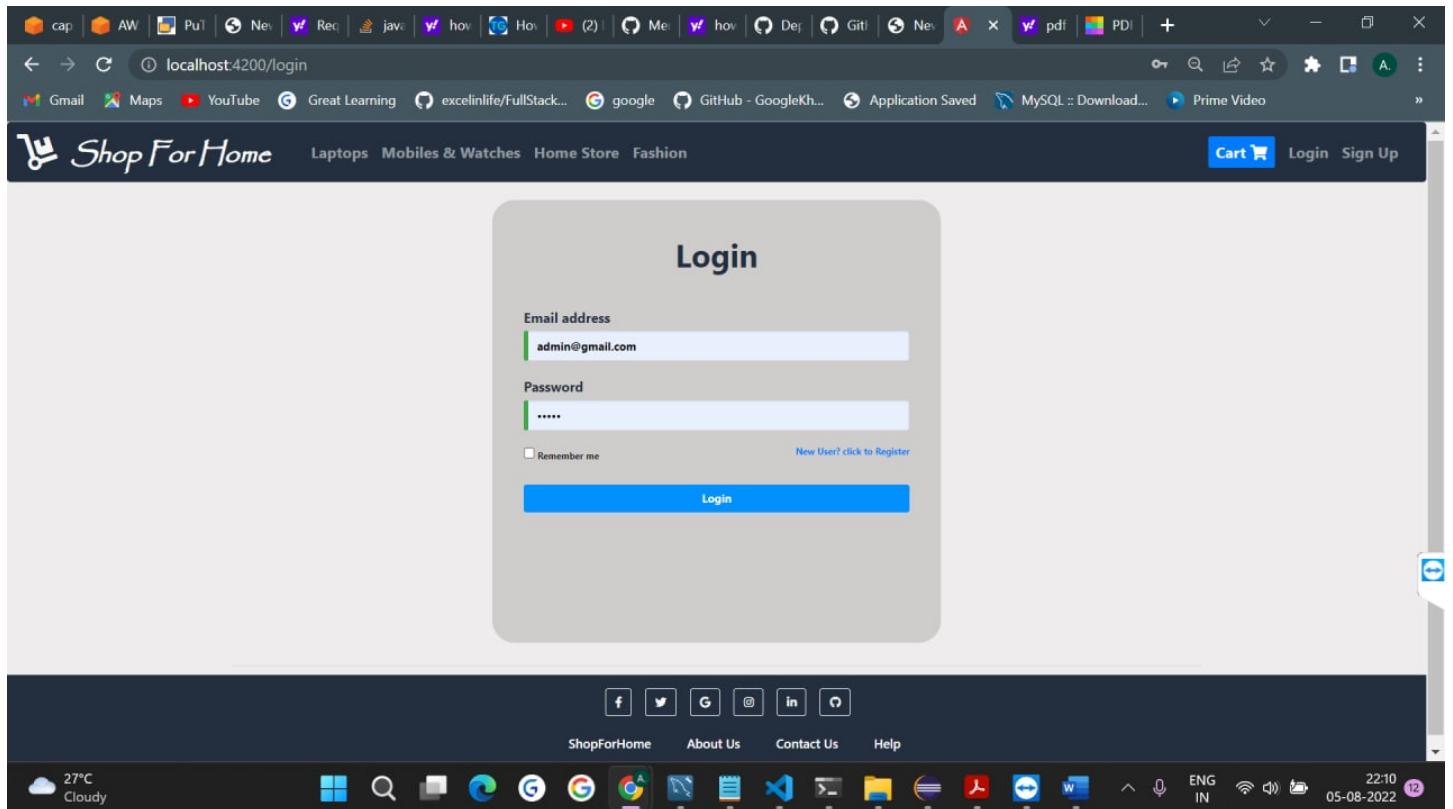
Remember me [New User? click to Register](#)

**Login**

ShopForHome About Us Contact Us Help

Cloudy 27°C 22:10 05-08-2022

### ADMIN



localhost:4200/login

ShopForHome Laptops Mobiles & Watches Home Store Fashion Cart Login Sign Up

**Login**

Email address: admin@gmail.com

Password: \*\*\*\*\*

Remember me [New User? click to Register](#)

**Login**

ShopForHome About Us Contact Us Help

Cloudy 27°C 22:10 05-08-2022

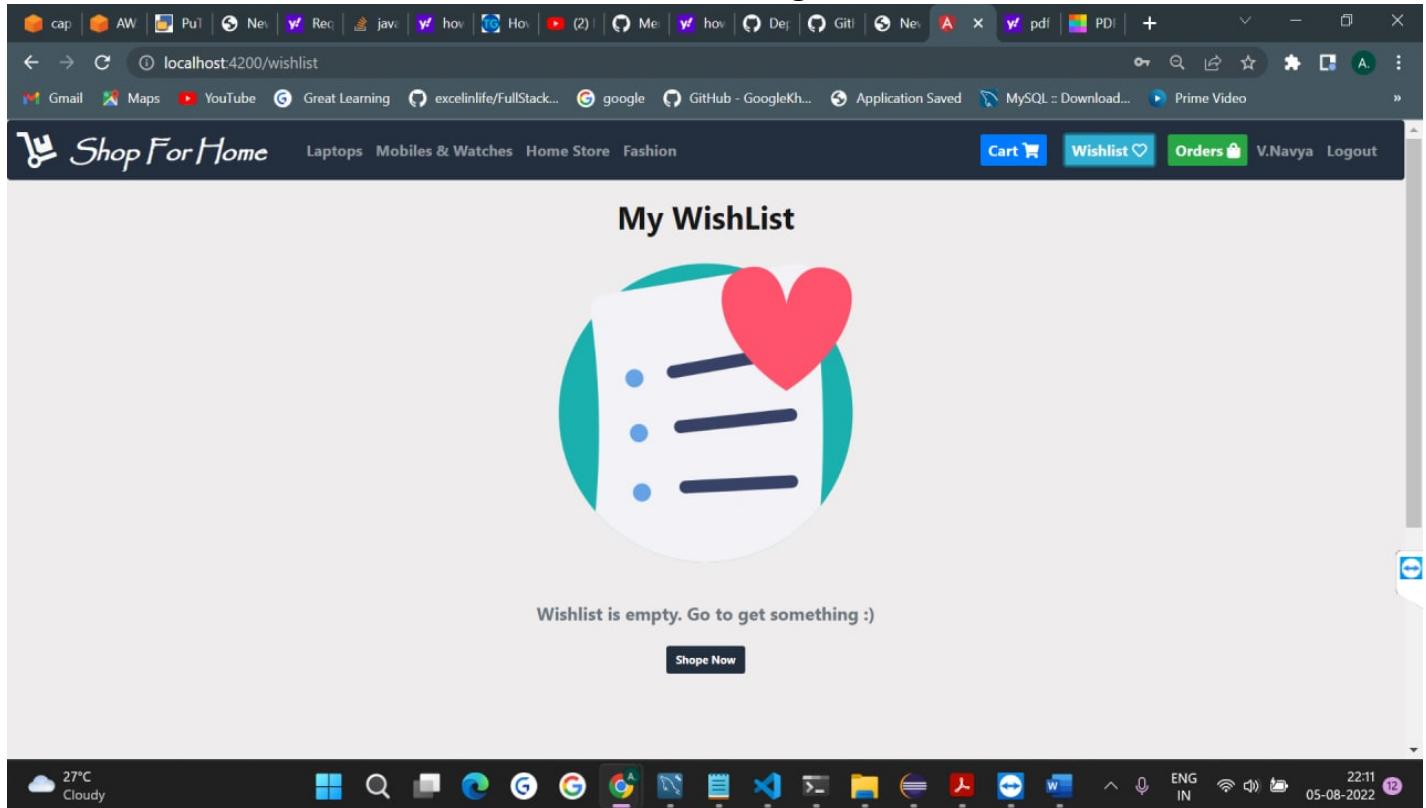
## Register Page:

The screenshot shows a web browser window with the URL `localhost:4200/register` in the address bar. The page title is "Register Page:". The main content is a "Sign Up" form for the "ShopForHome" website. The form fields are as follows:

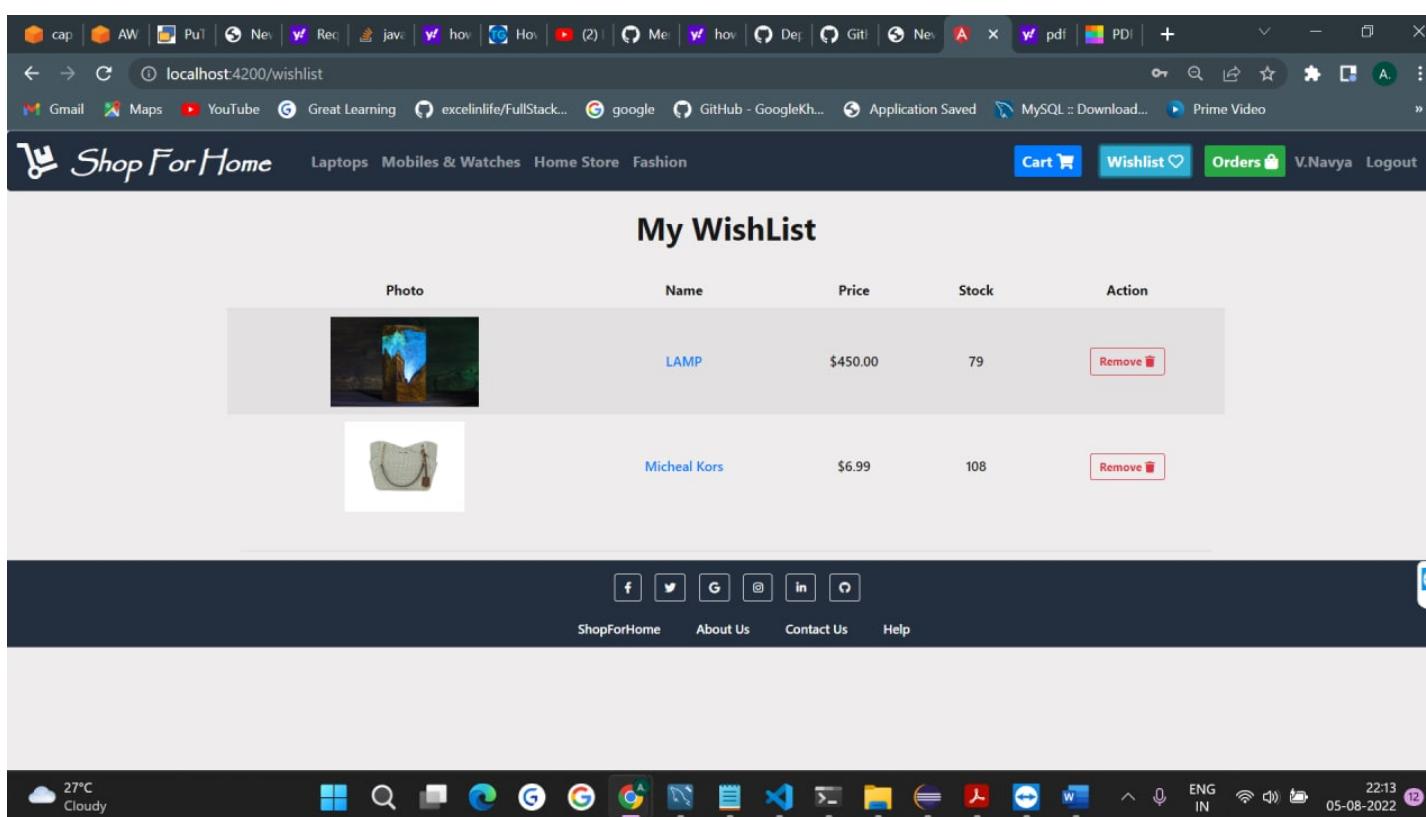
- Email address: `Vnavya@gmail.com`
- Name: `V.Navya`
- Password: `.....`
- Phone: `6498746453`
- Address: `Hyderabad`

At the bottom of the form, there is a blue "Sign Up" button and a link "Already registered? click to login". The browser's toolbar at the top includes various icons for file operations, search, and navigation. The taskbar at the bottom shows the Windows Start button, a search bar, and several pinned application icons. The system tray on the right displays the date and time (05-08-2022, 22:11), battery status (27°C, Cloudy), and language settings (ENG IN).

## Wish List Page:



The screenshot shows a browser window with the URL [localhost:4200/wishlist](http://localhost:4200/wishlist). The page title is "My WishList". The main content area features a large circular icon with a red heart on top of a list of items. Below the icon, the text "Wishlist is empty. Go to get something :)" is displayed. A "Shop Now" button is located at the bottom of this section. The browser's address bar and various tabs are visible at the top, and the system tray with a weather icon and date/time is at the bottom.



The screenshot shows a browser window with the URL [localhost:4200/wishlist](http://localhost:4200/wishlist). The page title is "My WishList". The main content area displays a table with two items. The table has columns for Photo, Name, Price, Stock, and Action. The first item is a "LAMP" priced at \$450.00 with 79 in stock. The second item is a "Micheal Kors" bag priced at \$6.99 with 108 in stock. Each item has a "Remove" button in its action column. Below the table, there are social media sharing icons (Facebook, Twitter, Google+, etc.) and links for "ShopForHome", "About Us", "Contact Us", and "Help". The browser's address bar and various tabs are visible at the top, and the system tray with a weather icon and date/time is at the bottom.

## Cart Page:

localhost:4200/cart

Gmail Maps YouTube Great Learning excellinlife/FullStack... google GitHub - GoogleK... Application Saved MySQL :: Download... Prime Video

# Shop For Home

Laptops Mobiles & Watches Home Store Fashion

Cart  Wishlist  Orders  V.Navya Logout

## My Cart

Photo	Name	Price	Quantity	Subtotal	Action
	Noise ColorFit	\$17.99	<input type="button" value="-"/> <input type="text" value="1"/> <input type="button" value="+"/>	\$17.99	<a href="#">Remove </a>
	LAMP	\$450.00	<input type="button" value="-"/> <input type="text" value="1"/> <input type="button" value="+"/>	\$450.00	<a href="#">Remove </a>

BOOM10

Total: \$374.39 [Buy Now](#)

27°C Cloudy 05-08-2022 22:12

## Order Page

localhost:4200/order

Gmail Maps YouTube Great Learning excelinlife/FullStack... google GitHub - GoogleK... Application Saved MySQL :: Download... Prime Video

**Shop For Home** Discount % Users Stocks Orders Admin Logout

### Orders

Order #	Customer Name	Customer Email	Customer Phone	Shipping Address	Total	Order Date	Status	Action
57	V.Navya	Vnavya@gmail.com	6498746453	Hyderabad	\$6.99	Aug 5, 2022	New	<a>Show</a> <a>Cancel</a> <a>Finish</a>
54	V.Navya	Vnavya@gmail.com	6498746453	Hyderabad	\$467.99	Aug 5, 2022	Cancelled	<a>Show</a>
35	Chetan	chetan@gmail.com	6498746886	Mumbai	\$130,000.00	Aug 5, 2022	New	<a>Show</a> <a>Cancel</a> <a>Finish</a>
33	Chetan	chetan@gmail.com	6498746886	Mumbai	\$279.00	Aug 5, 2022	Finished	<a>Show</a>
29	Chetan	chetan@gmail.com	6498746886	Mumbai	\$250.00	Aug 5, 2022	New	<a>Show</a> <a>Cancel</a> <a>Finish</a>

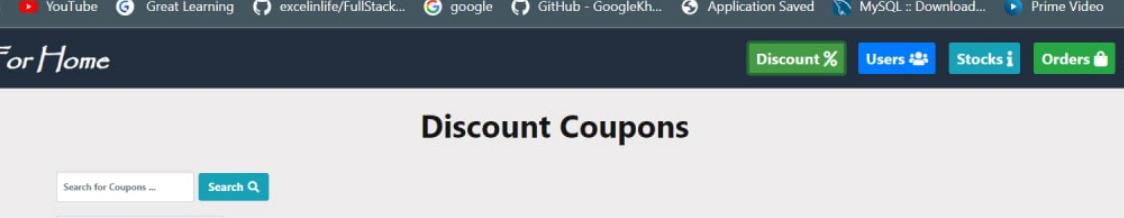
27°C Cloudy 22:14 ENG IN 05-08-2022

## **Edit Profile Page: (for both user and admin)**

A screenshot of a web browser showing the 'Edit Profile' page of the ShopForHome website. The page has a dark header with the logo 'ShopForHome' and navigation links for 'Books', 'Coffe Mugs', 'Mouse Pads', and 'Luggage Tags'. On the right, there are buttons for 'Cart' (with a shopping cart icon), 'Wishlist' (with a heart icon), 'Orders' (with a lock icon), and the user's name 'Rahul' with a 'Logout' link. The main content area has a light gray background and features a large title 'Edit Profile'. Below it are five input fields with labels: 'Email address' (containing 'rahul@gmail.com'), 'Name' (containing 'Rahul'), 'Password' (containing 'Password'), 'Phone' (containing '9897594420'), and 'Address' (containing 'Agra'). A blue 'Update' button is positioned below these fields. At the bottom of the page is a dark footer with social media icons for Facebook, Twitter, Google+, Instagram, LinkedIn, and YouTube, and links for 'ShopForHome', 'About Us', 'Contact Us', and 'Help'.

## Admin Pages:

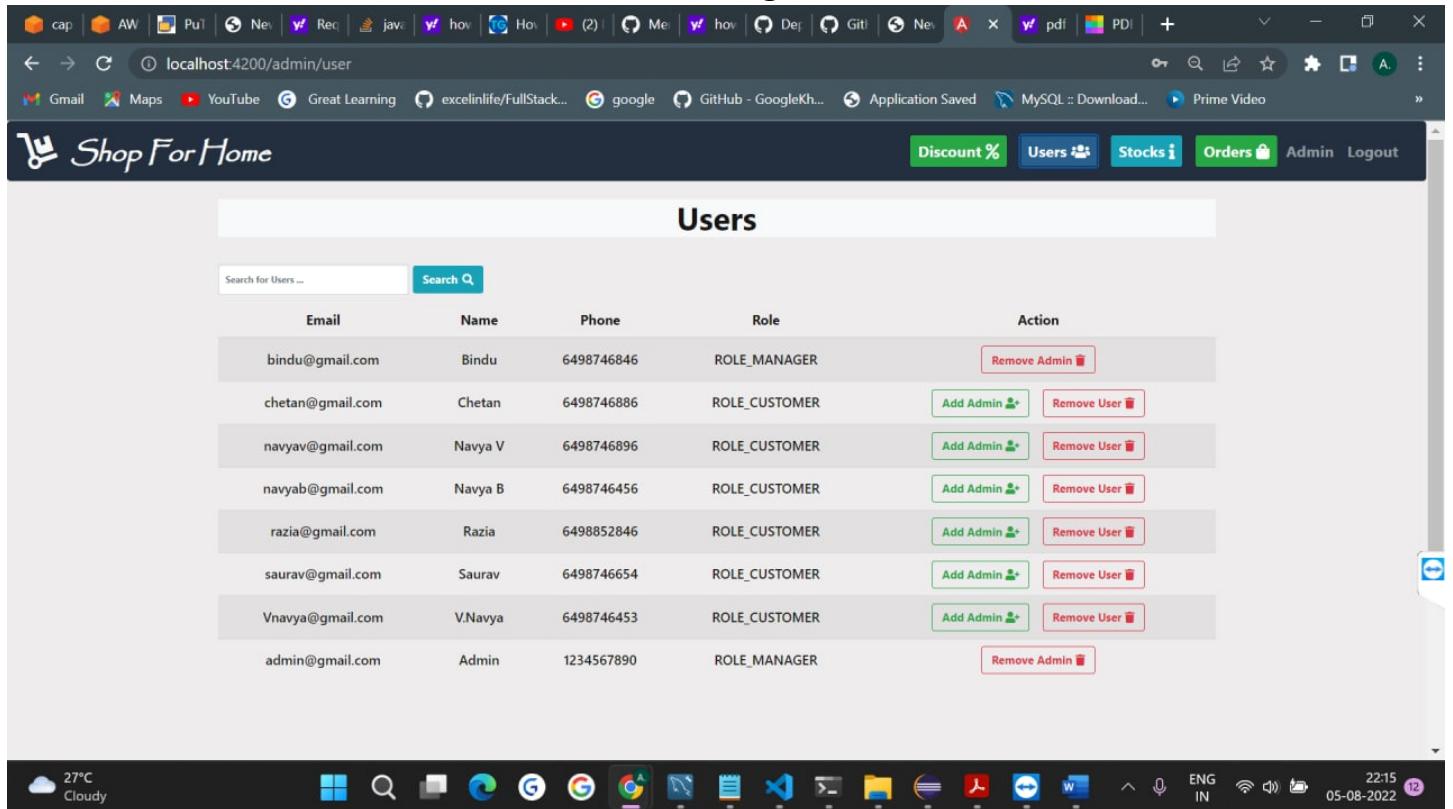
## Discount Page:



The screenshot shows a web application for managing discount coupons. At the top, there is a navigation bar with links for 'Discount %', 'Users', 'Stocks', 'Orders', 'Admin', and 'Logout'. Below the navigation bar, the main title 'Discount Coupons' is displayed. On the left, there is a search bar with placeholder text 'Enter coupon code' and a 'Search' button. A green 'Add Coupon' button is located below the search bar. The main content area displays a table with four rows of coupon codes and their corresponding 'Remove' buttons. The table has two columns: 'Couponcode' and 'Action'.

Couponcode	Action
BOOM10	<a href="#">Remove</a>
LOOT5	<a href="#">Remove</a>
PAYDAY30	<a href="#">Remove</a>
SALE20	<a href="#">Remove</a>

## Users Page:



Email	Name	Phone	Role	Action
bindu@gmail.com	Bindu	6498746846	ROLE_MANAGER	<a href="#">Remove Admin</a>
chetan@gmail.com	Chetan	6498746886	ROLE_CUSTOMER	<a href="#">Add Admin</a> <a href="#">Remove User</a>
navyav@gmail.com	Navya V	6498746896	ROLE_CUSTOMER	<a href="#">Add Admin</a> <a href="#">Remove User</a>
navyab@gmail.com	Navya B	6498746456	ROLE_CUSTOMER	<a href="#">Add Admin</a> <a href="#">Remove User</a>
razia@gmail.com	Razia	6498852846	ROLE_CUSTOMER	<a href="#">Add Admin</a> <a href="#">Remove User</a>
saurav@gmail.com	Saurav	6498746654	ROLE_CUSTOMER	<a href="#">Add Admin</a> <a href="#">Remove User</a>
Vnavya@gmail.com	V.Navya	6498746453	ROLE_CUSTOMER	<a href="#">Add Admin</a> <a href="#">Remove User</a>
admin@gmail.com	Admin	1234567890	ROLE_MANAGER	<a href="#">Remove Admin</a>

## Products Page:

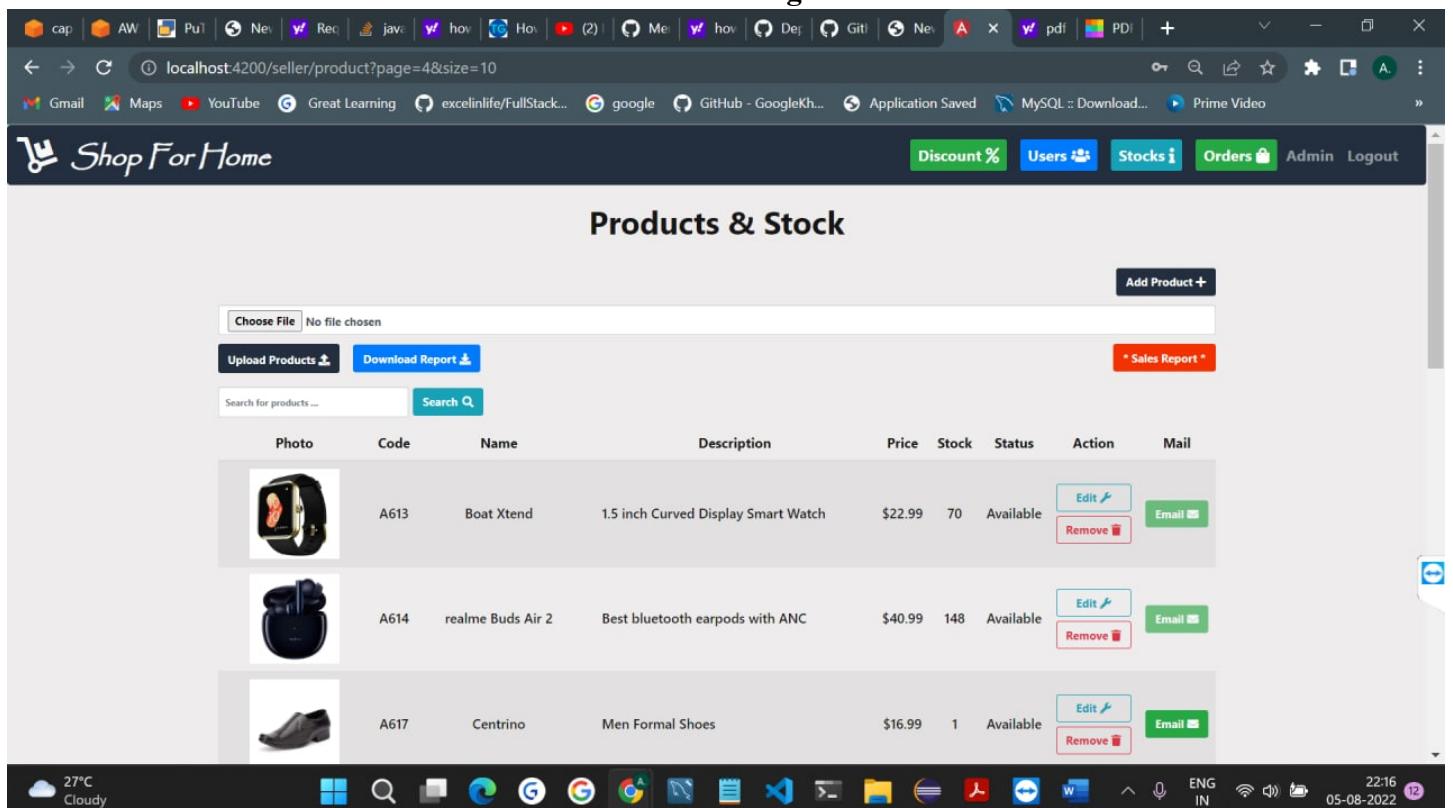


Photo	Code	Name	Description	Price	Stock	Status	Action	Mail
	A613	Boat Xtend	1.5 inch Curved Display Smart Watch	\$22.99	70	Available	<a href="#">Edit</a> <a href="#">Remove</a>	<a href="#">Email</a>
	A614	realme Buds Air 2	Best bluetooth earpods with ANC	\$40.99	148	Available	<a href="#">Edit</a> <a href="#">Remove</a>	<a href="#">Email</a>
	A617	Centrino	Men Formal Shoes	\$16.99	1	Available	<a href="#">Edit</a> <a href="#">Remove</a>	<a href="#">Email</a>

## Edit Product Page:

The screenshot shows a web browser window with the URL [localhost:4200/seller/product/A626/edit](http://localhost:4200/seller/product/A626/edit). The page title is "Edit Product". The form fields are as follows:

- Code:** A626
- Photo Link:** assets/images/products/mypics/23.jpg
- Name:** Lee Cooper
- Category:** Fashion
- Description:** Men-Women Wayfarer Sunglasses
- Price:** 16.99
- Stock:** 103
- Status:** Available

At the bottom is a blue "Submit" button.

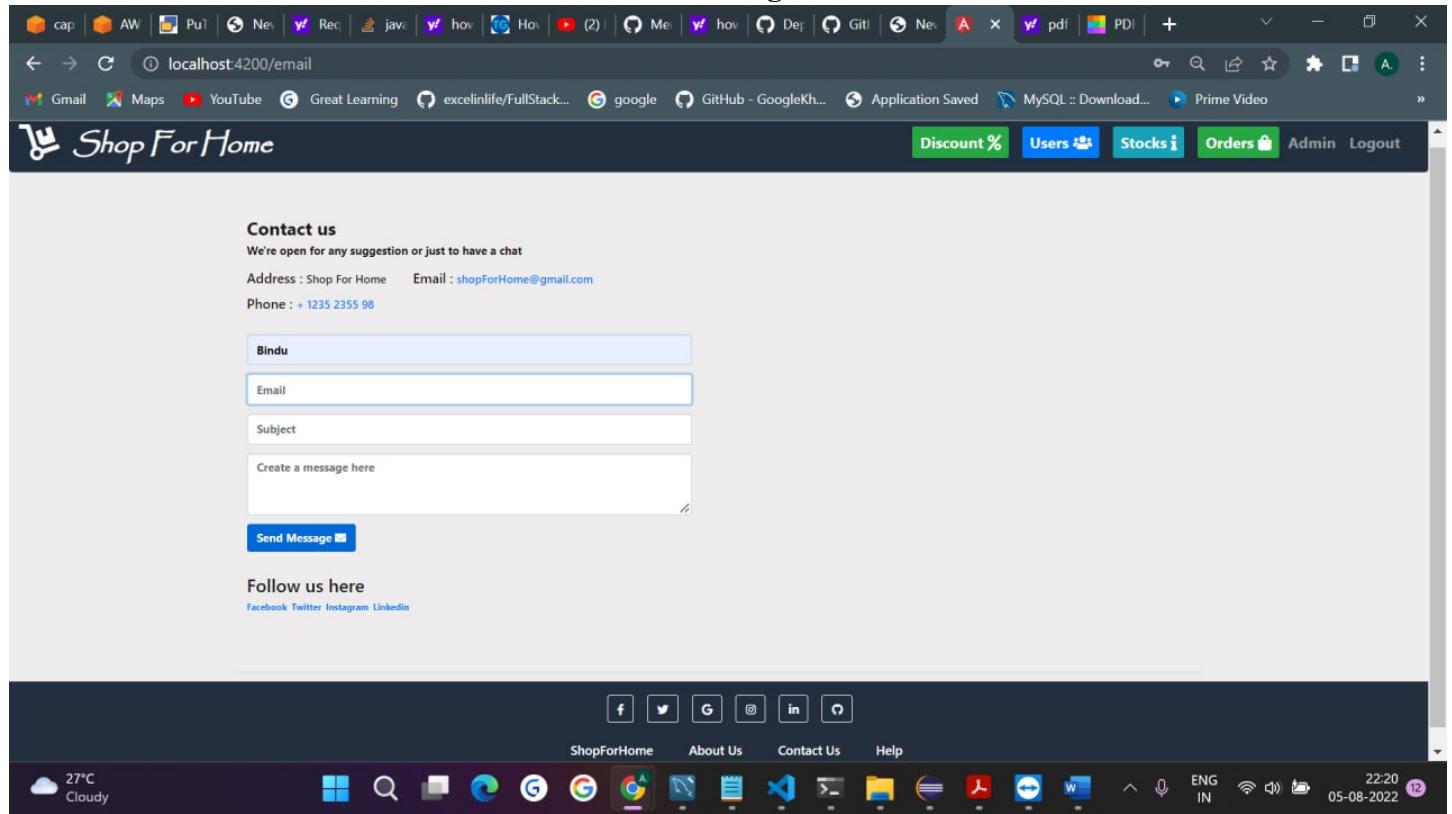
## New Product Page:

The screenshot shows a web browser window with the URL [localhost:4200/seller/product/new](http://localhost:4200/seller/product/new). The page title is "New Product". The form fields are as follows:

- Code:** A930
- Photo Link:** Photo
- Name:** Headphones
- Category:** Mobiles & Watches
- Description:** with ANC
- Price:** 16
- Stock:** 88
- Status:** Available

At the bottom is a blue "Submit" button.

## Email Page:



localhost:4200/email

Gmail Maps YouTube Great Learning excelinlife/FullStack... google GitHub - GoogleK... Application Saved MySQL :: Download... Prime Video

**Shop For Home**

**Contact us**  
We're open for any suggestion or just to have a chat

Address : Shop For Home Email : [shopForHome@gmail.com](mailto:shopForHome@gmail.com)  
Phone : + 1235 2355 98

Bindu

Email

Subject

Create a message here

Send Message

Follow us here

Facebook Twitter Instagram LinkedIn

ShopForHome About Us Contact Us Help

Cloudy 27°C

22:20 05-08-2022

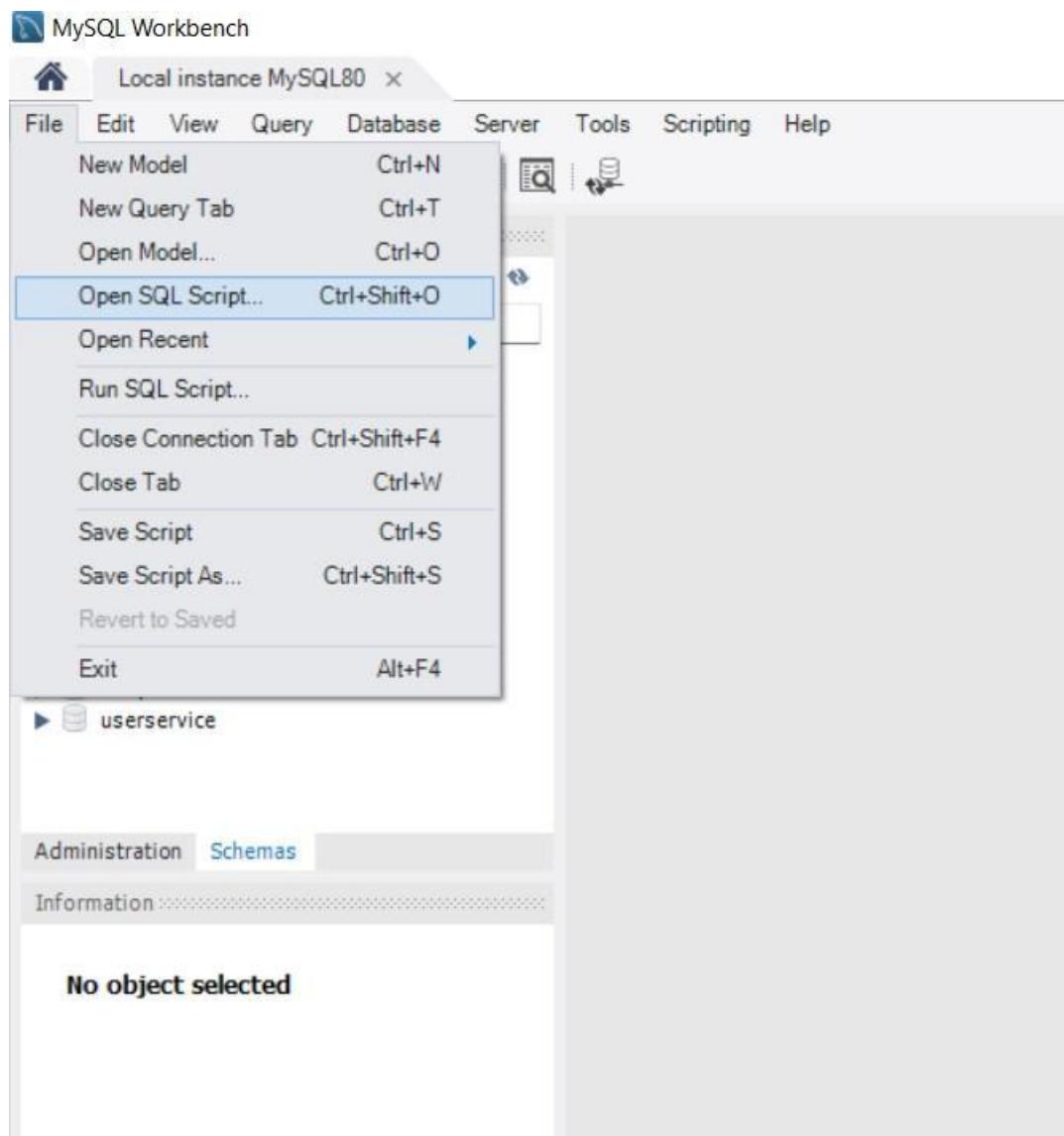
## **Installation Steps:**

### **Required Software:**

1. [Spring Tool Suite](#)
2. [Visual Studio Code](#)
3. [MySQL](#)

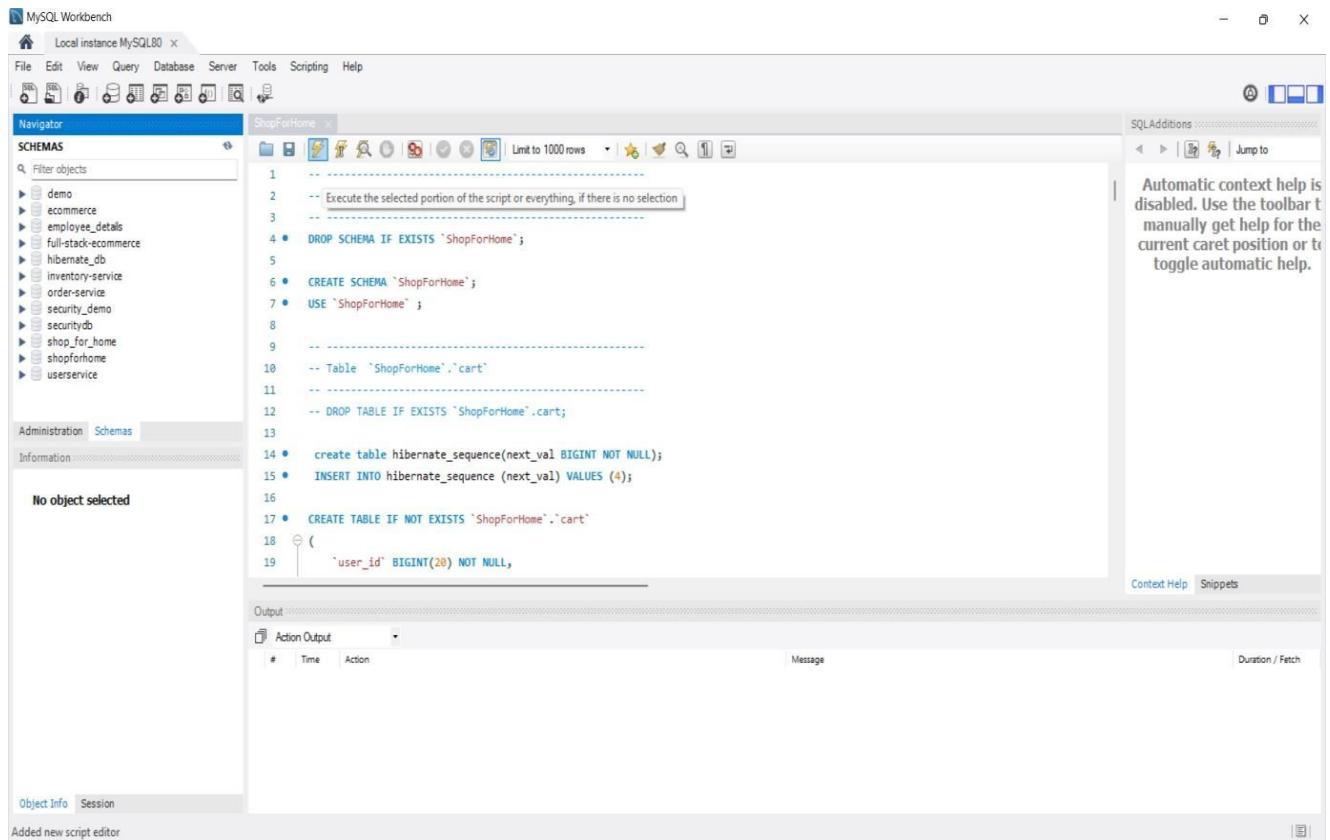
### **Create database in MySQL Workbench:**

1. Open MySQL Workbench.
2. Click on Open SQL Script.



3. Select ShopForHome SQL File in project folder.

4. Click on Execute to run SQL File.



The screenshot shows the MySQL Workbench interface. The title bar says "MySQL Workbench" and "Local instance MySQL80". The menu bar includes File, Edit, View, Query, Database, Server, Tools, Scripting, and Help. The toolbar has various icons for database management. The left sidebar shows "Schemas" with "ShopForHome" selected. The main area is the "SQL Editor" with the following script:

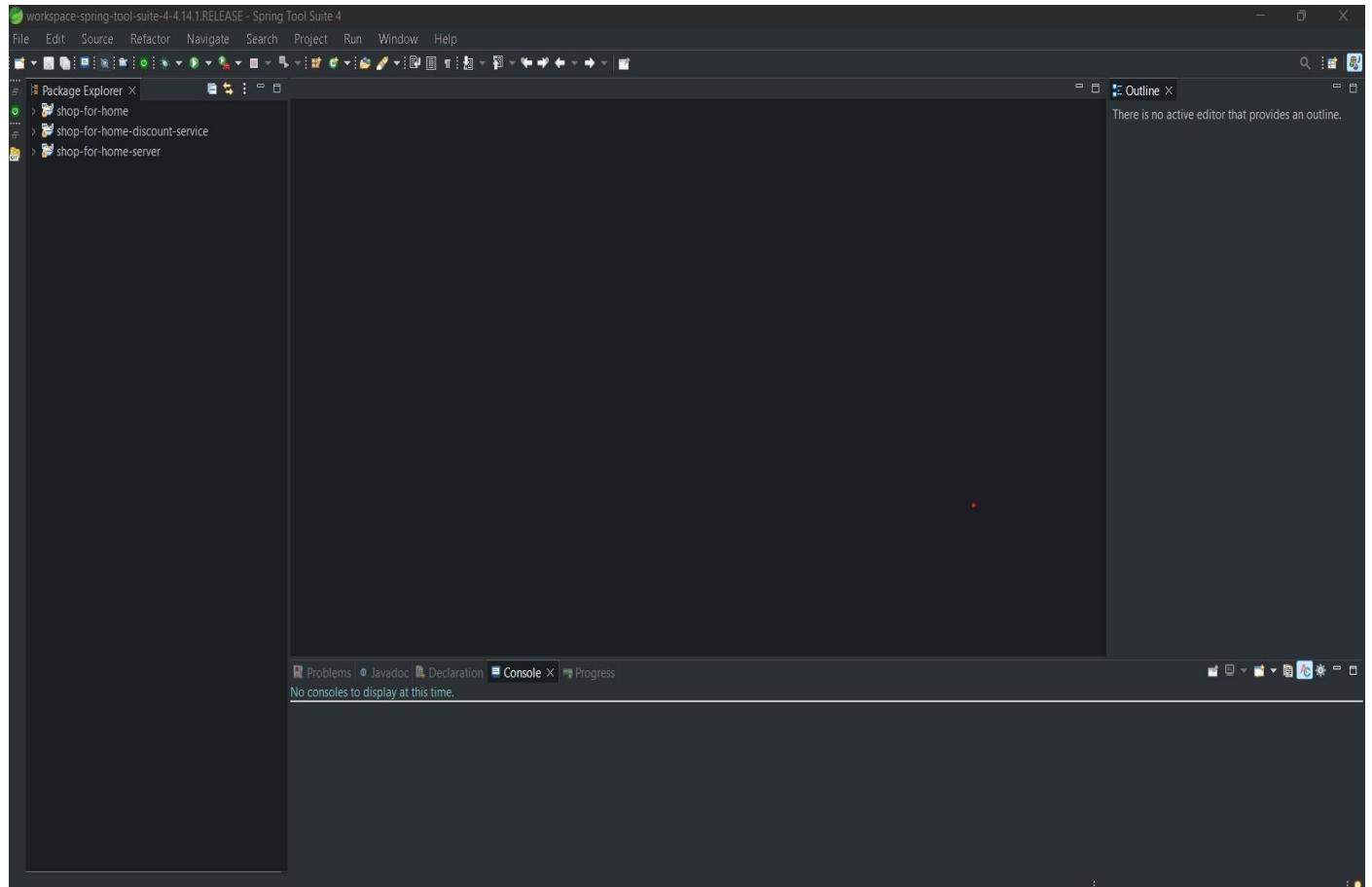
```
1 -- Execute the selected portion of the script or everything, if there is no selection
2 --
3 --
4 • DROP SCHEMA IF EXISTS `ShopForHome`;
5
6 • CREATE SCHEMA `ShopForHome`;
7 • USE `ShopForHome`;
8
9 --
10 -- Table `ShopForHome`.`cart`
11 --
12 -- DROP TABLE IF EXISTS `ShopForHome`.`cart`;
13
14 • create table hibernate_sequence(next_val BIGINT NOT NULL);
15 • INSERT INTO hibernate_sequence (next_val) VALUES (4);
16
17 • CREATE TABLE IF NOT EXISTS `ShopForHome`.`cart`
18 (
19     `user_id` BIGINT(28) NOT NULL,
```

The right panel has a "SQLAdditions" section with a note: "Automatic context help is disabled. Use the toolbar to manually get help for the current caret position or to toggle automatic help." The bottom right shows "Context Help" and "Snippets". The bottom left shows "Object Info" and "Session". The bottom center shows the "Output" tab with "Action Output" selected.

5. Now Database is successfully created.

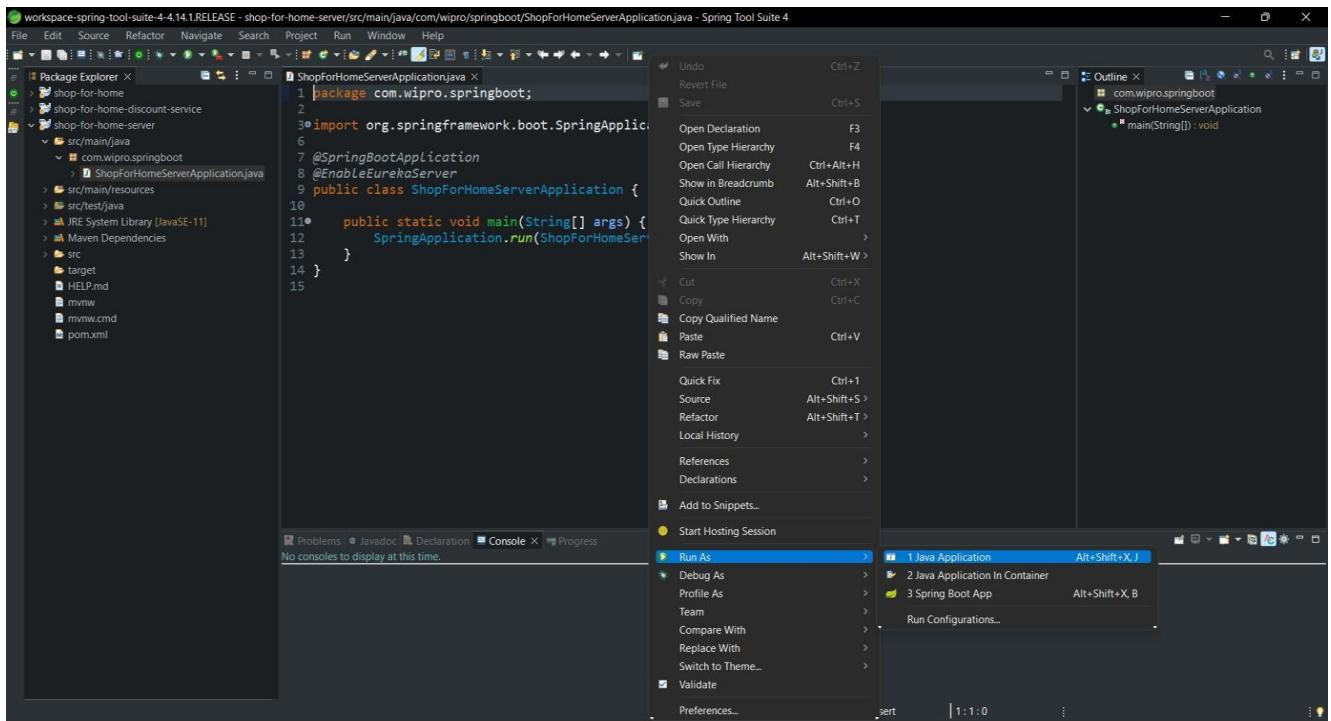
## Import Backend project in Spring Tool Suite:

1. Open Spring Tool Suite.
2. Import all four project in workspace from backend folder.



**Note: - In Project MySQL username and password is root. Please change it according to your system in application.properties file.**

#### 4. First Open shop-for-home-server project and run it as java application.



```
workspace-spring-tool-suite-4-4.14.1.RELEASE - shop-for-home-server/src/main/java/com/wipro/springboot/ShopForHomeServerApplication.java - Spring Tool Suite 4

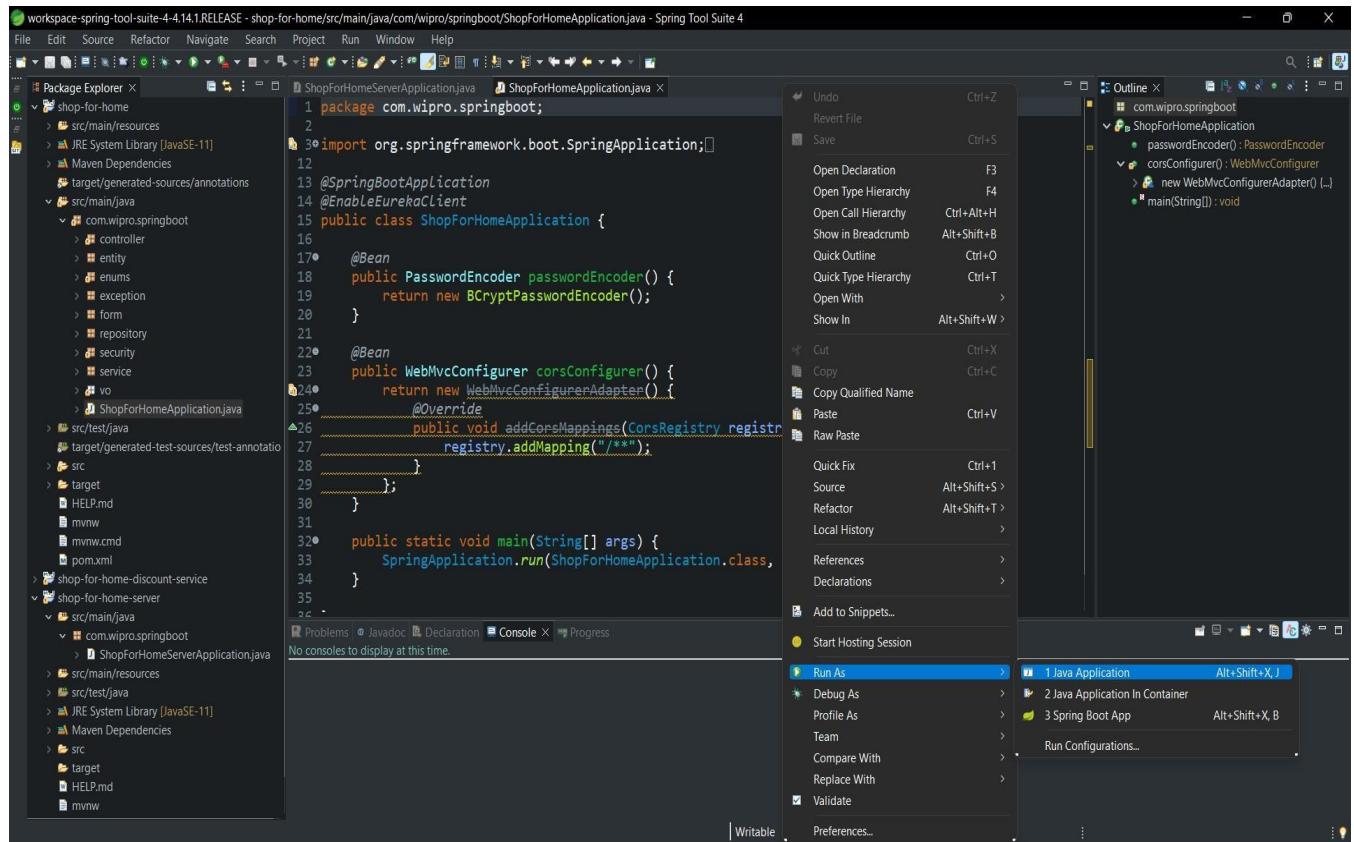
File Edit Source Refactor Navigate Search Project Run Window Help

Package Explorer X ShopForHomeServerApplication.java
src/main/java/com.wipro.springboot.ShopForHomeServerApplication.java
1 package com.wipro.springboot;
2
3 import org.springframework.boot.SpringApplication;
4 @SpringBootApplication
5 @EnableEurekaServer
6 public class ShopForHomeServerApplication {
7     public static void main(String[] args) {
8         SpringApplication.run(ShopForHomeServerApplication.class, args);
9     }
10 }

Outline X com.wipro.springboot
ShopForHomeServerApplication
main(String[])

```

#### 5. Then Open shop-for-home project and run it as java application.



```
workspace-spring-tool-suite-4-4.14.1.RELEASE - shop-for-home/src/main/java/com/wipro/springboot/ShopForHomeApplication.java - Spring Tool Suite 4

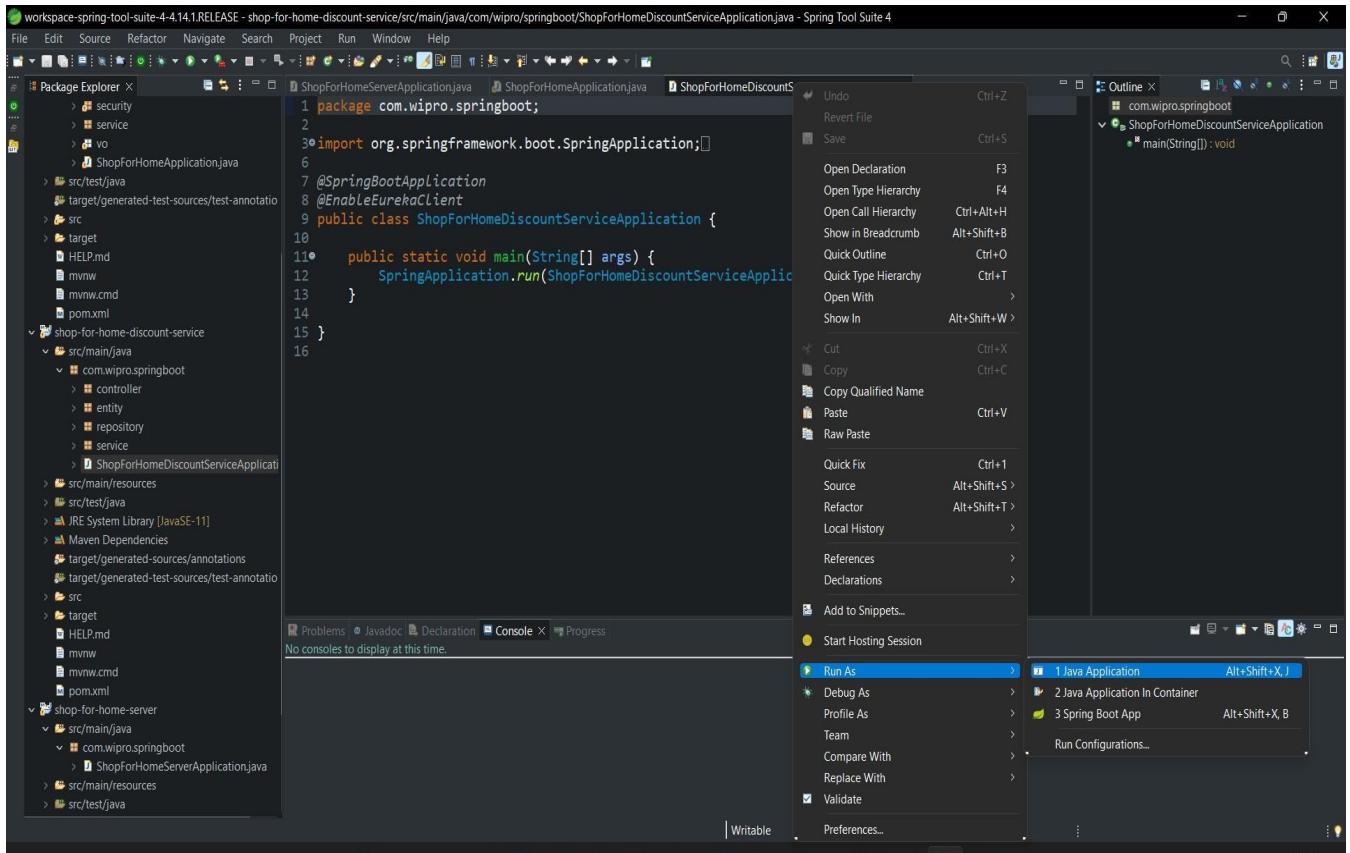
File Edit Source Refactor Navigate Search Project Run Window Help

Package Explorer X ShopForHomeApplication.java ShopForHomeApplication.java
src/main/java/com.wipro.springboot.ShopForHomeApplication.java
1 package com.wipro.springboot;
2
3 import org.springframework.boot.SpringApplication;
4 @SpringBootApplication
5 @EnableEurekaClient
6 public class ShopForHomeApplication {
7     @Bean
8     public PasswordEncoder passwordEncoder() {
9         return new BCryptPasswordEncoder();
10    }
11
12    @Bean
13    public WebMvcConfigurer corsConfigurer() {
14        return new WebMvcConfigurerAdapter() {
15            @Override
16            public void addCorsMappings(CorsRegistry registry) {
17                registry.addMapping("/**");
18            }
19        };
20    }
21
22    public static void main(String[] args) {
23        SpringApplication.run(ShopForHomeApplication.class, args);
24    }
25 }

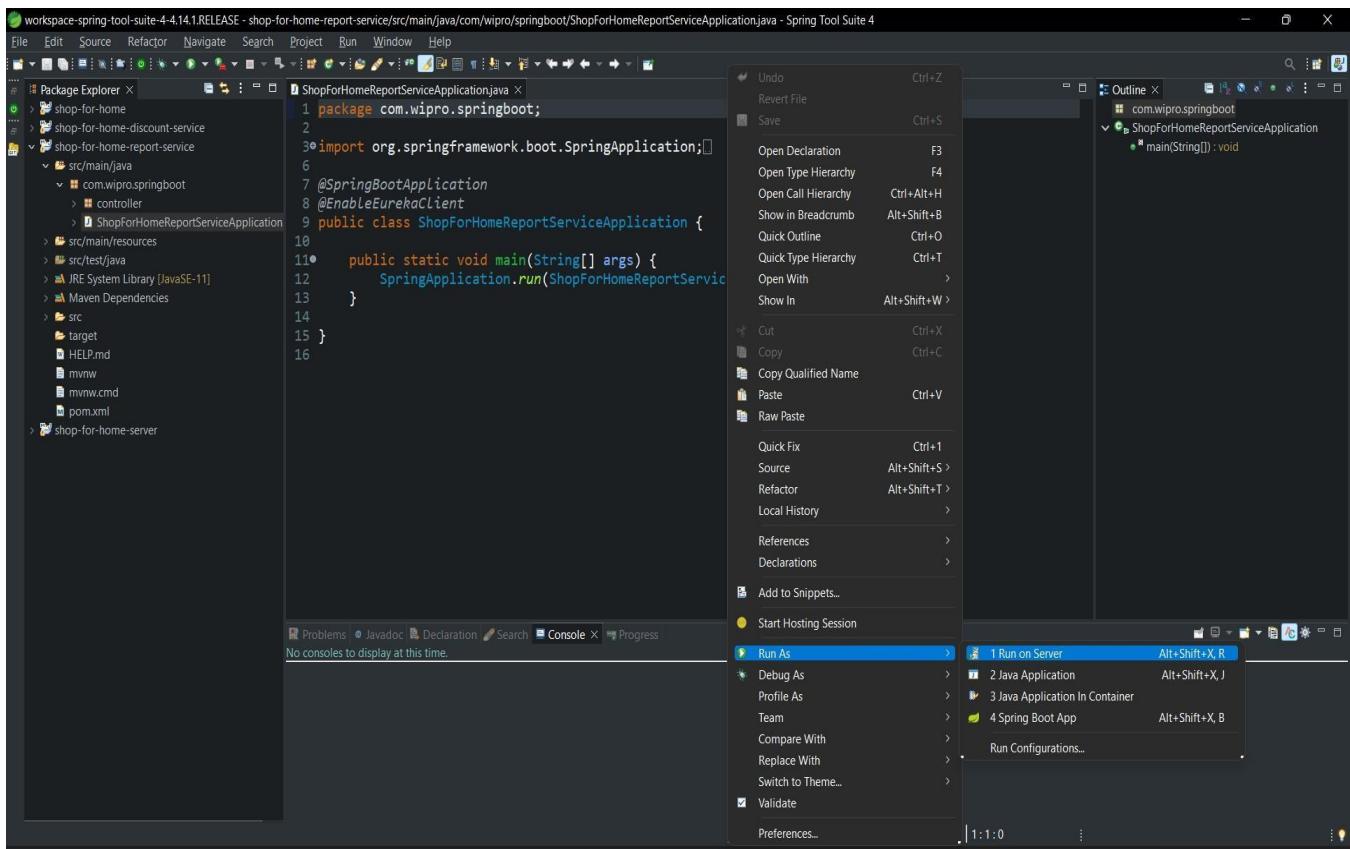
Outline X com.wipro.springboot
ShopForHomeApplication
passwordEncoder()
corsConfigurer()
new WebMvcConfigurerAdapter()
main(String[])

```

6. Then Open shop-for-home-discount-service project and run it as java application.

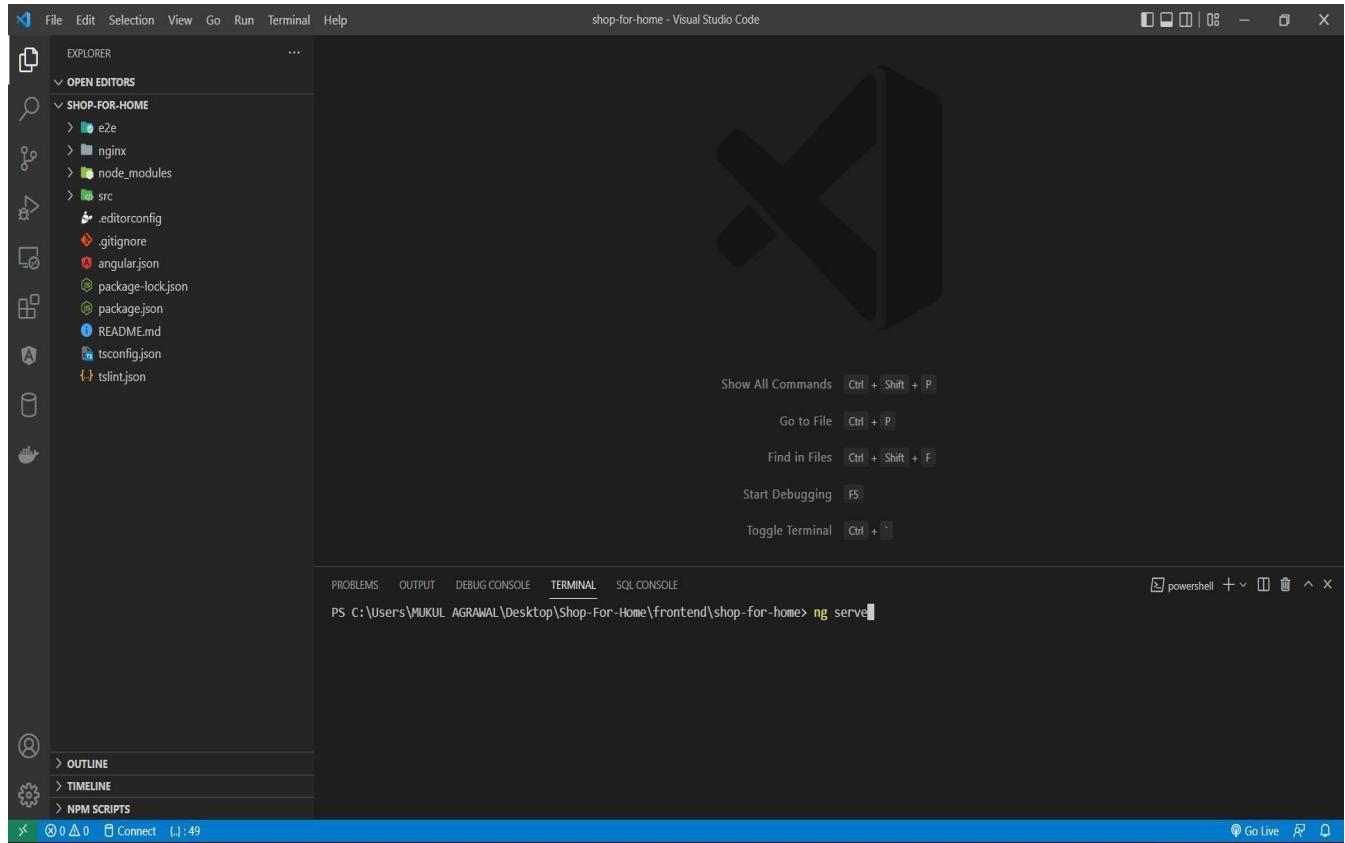


7. Then Last Open shop-for-home-report-service project and run it as java application.



## Open Frontend Project in Visual Studio Code:

1. Open Visual Studio Code.
2. Click On Open Folder.
3. Select shop-for-home in frontend folder.
4. Open new terminal and type ng serve to run the project.



**Now Open the Chrome browser and go to <http://localhost:4200>.**

**Note: - shop-for-home service is running on port 8081**

**shop-for-home-discount service is running on port 8082**

**shop-for-home-report-service is running on port 8083**

**So please make these port free to run the application.**

**Note: - Email Address and Password for Admin**

**Email- [bindu@gmail.com](mailto:bindu@gmail.com)**

**Password- Admin**

# AWS Deployment Process

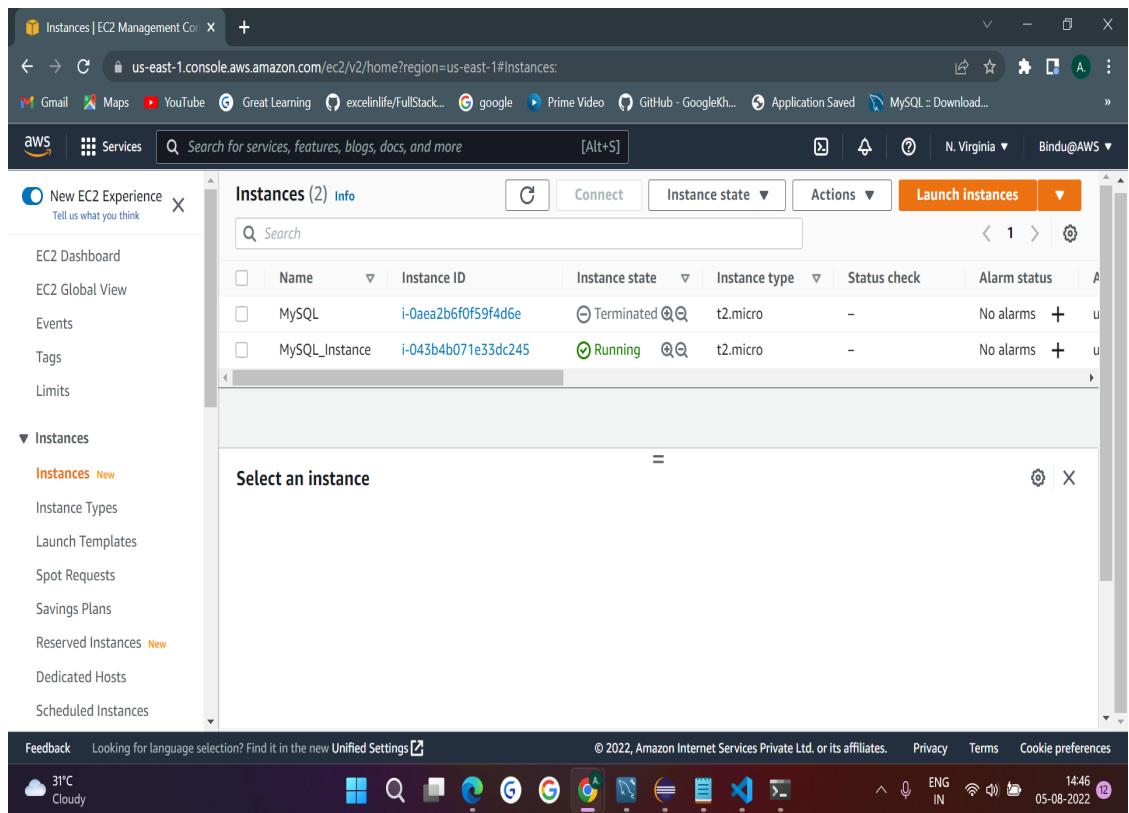
Application should be deployed on EC2 instances in an autoscaling group behind an application load balancer. A user-data script can be used to install the application on the instances by fetching it from S3 buckets

## 1) Creation of EC2 Instances

The image shows two screenshots of the AWS EC2 Management Console.

**Top Screenshot:** The Instances page. The left sidebar shows 'Instances' with sub-options like 'Instances', 'Instance Types', 'Launch Templates', etc. The main area shows a table with columns: Name, Instance ID, Instance state, Instance type, Status check, and Alarm status. A search bar at the top says 'Instance state = running'. A message at the bottom says 'No matching instances found'.

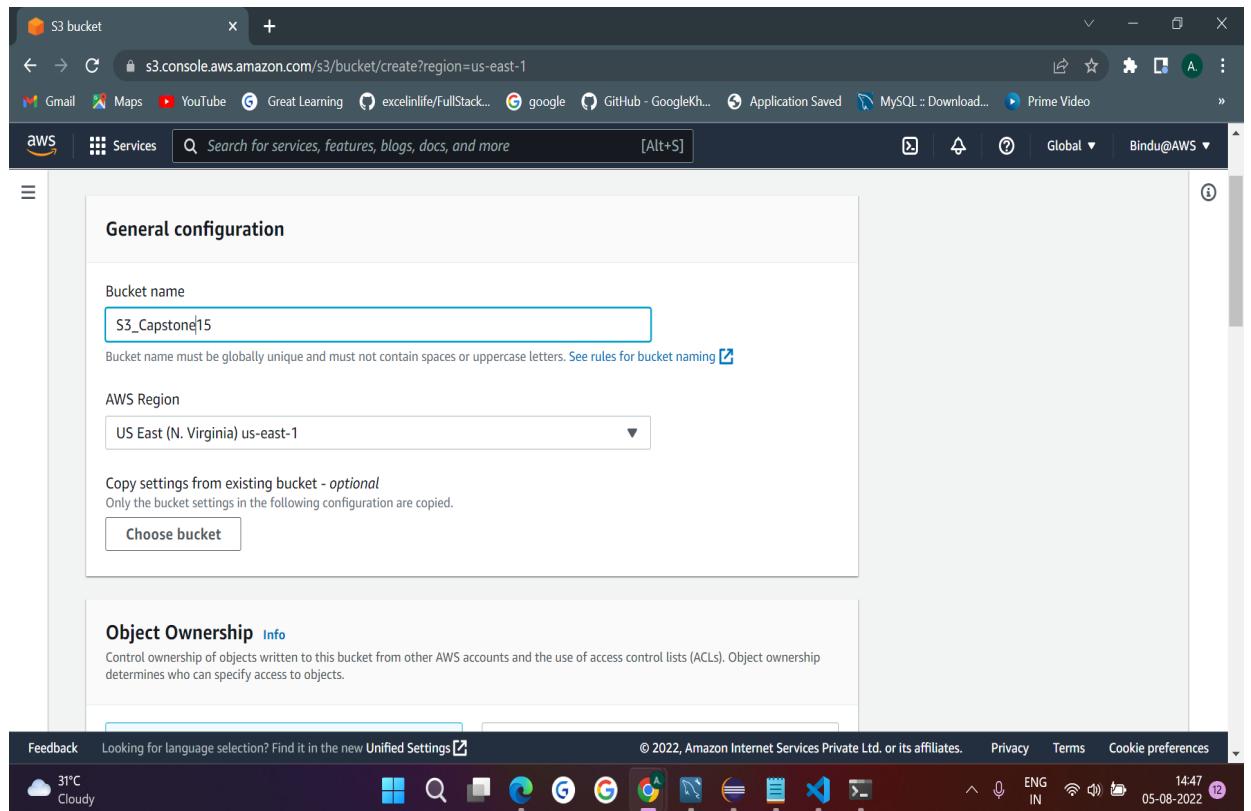
**Bottom Screenshot:** The Quick Start page for launching a new instance. It shows a grid of AMI icons: Amazon Linux, Ubuntu, Windows, Red Hat, SUSE Linux, and others. The 'Ubuntu' icon is selected. A box highlights the 'Ubuntu Server 20.04 LTS (HVM), SSD Volume Type' AMI: ami-08d4ac5b634553e16 (64-bit (x86)) / ami-0888c389a05d881a (64-bit (Arm)). It notes 'Free tier eligible'. Below this, 'Description' is 'Canonical, Ubuntu, 20.04 LTS, amd64 focal image build on 2022-06-10'. 'Architecture' is '64-bit (x86)' and 'AMI ID' is 'ami-08d4ac5b634553e16'.



The screenshot shows the AWS EC2 Management Console. The left sidebar is collapsed, and the main area displays a table of instances. The table has columns for Name, Instance ID, Instance state, Instance type, Status check, and Alarm status. There are two entries:

Name	Instance ID	Instance state	Instance type	Status check	Alarm status
MySQL	i-0aea2b6f0f59f4d6e	Terminated	t2.micro	-	No alarms
MySQL_Instance	i-043b4b071e33dc245	Running	t2.micro	-	No alarms

## 2) Creation of S3 bucket: need to upload the frontend and backend jar and dist folders



The screenshot shows the AWS S3 bucket creation wizard. The first step, "General configuration", is displayed. It includes fields for "Bucket name" (S3\_Capstone15), "AWS Region" (US East (N. Virginia) us-east-1), and a "Choose bucket" button for copying settings from an existing bucket. Below this is the "Object Ownership" section, which provides information about controlling ownership of objects written to the bucket.

S3 Management Console +

s3.console.aws.amazon.com/s3/buckets?region=us-east-1

Gmail Maps YouTube Great Learning excelinlife/FullStack... google GitHub - GoogleK... Application Saved MySQL :: Download... Prime Video

Services Search for services, features, blogs, docs, and more [Alt+S]

Bindu@AWS

**Amazon S3**

**Buckets**

- Access Points
- Object Lambda Access Points
- Multi-Region Access Points
- Batch Operations
- Access analyzer for S3

Block Public Access settings for this account

**Storage Lens**

- Dashboards
- AWS Organizations settings

Feature spotlight 3

Feedback Looking for language selection? Find it in the new Unified Settings ?

31°C Cloudy

© 2022, Amazon Internet Services Private Ltd. or its affiliates. Privacy Terms Cookie preferences

14:50 05-08-2022

**Successfully created bucket "s3capstone15"**  
To upload files and folders, or to configure additional bucket settings choose [View details](#).

**Store your archive datasets in the low-cost Amazon S3 Glacier storage classes.** View tutorial

Amazon S3 > Buckets

**Account snapshot**  
Storage lens provides visibility into storage usage and activity trends. [Learn more](#)

**Buckets (1) Info**

Buckets are containers for data stored in S3. [Learn more](#)

Name	AWS Region	Access	Creation date
s3capstone15	US East (N. Virginia) us-east-1	Objects can be public	August 5, 2022, 14:50:20 (UTC+05:30)

Copy ARN Empty Delete Create bucket

Find buckets by name < 1 > ⚙️

**Feedback** Looking for language selection? Find it in the new Unified Settings ?

© 2022, Amazon Internet Services Private Ltd. or its affiliates. Privacy Terms Cookie preferences

ENG IN 05-08-2022

s3.console.aws.amazon.com/s3/buckets/capstoneb15s3?region=us-east-1&tab=objects

Gmail Maps YouTube Great Learning excelinlife/FullStack... google GitHub - GoogleK... Application Saved MySQL :: Download... Prime Video

Services Search for services, features, blogs, docs, and more [Alt+S]

Bindu@AWS

**Amazon S3**

**Buckets**

- Access Points
- Object Lambda Access Points
- Multi-Region Access Points
- Batch Operations
- Access analyzer for S3

Block Public Access settings for this account

**Storage Lens**

- Dashboards
- AWS Organizations settings

Feature spotlight 3

AWS Marketplace for S3

Feedback Looking for language selection? Find it in the new Unified Settings ?

27°C Cloudy

© 2022, Amazon Internet Services Private Ltd. or its affiliates. Privacy Terms Cookie preferences

22:51 05-08-2022

**capstoneb15s3 Info**

**Objects (5)**

Objects are the fundamental entities stored in Amazon S3. You can use [Amazon S3 inventory](#) to get a list of all objects in your bucket. For others to access your objects, you'll need to explicitly grant them permissions. [Learn more](#)

Name	Type	Last modified	Size	Storage class
dist/	Folder	-	-	-
shop-for-home-0.0.1-SNAPSHOT.jar	jar	August 5, 2022, 19:30:38 (UTC+05:30)	60.4 MB	Standard
shop-for-home-discount-service-0.0.1-SNAPSHOT.jar	jar	August 5, 2022, 17:51:12 (UTC+05:30)	57.1 MB	Standard
shop-for-home-report-service-0.0.1-SNAPSHOT.jar	jar	August 5, 2022, 17:51:12 (UTC+05:30)	37.2 MB	Standard
shop-for-home-server-0.0.1-SNAPSHOT.jar	jar	August 5, 2022, 19:47:47 (UTC+05:30)	44.1 MB	Standard

Copy S3 URI Copy URL Download Open Delete Actions Create folder Upload

Find objects by prefix < 1 > ⚙️

**Feedback** Looking for language selection? Find it in the new Unified Settings ?

© 2022, Amazon Internet Services Private Ltd. or its affiliates. Privacy Terms Cookie preferences

ENG IN 05-08-2022

### 3) creation of Load balancer and Auto scaling:

Screenshot of the AWS Cloud9 IDE showing the creation of a Load Balancer and Auto Scaling group.

The browser URL is <https://us-east-1.console.aws.amazon.com/ec2/v2/home?region=us-east-1#LoadBalancers:sort=loadBalancerName>.

The AWS Cloud9 sidebar shows the following navigation:

- New EC2 Experience (button)
- EC2 Dashboard
- EC2 Global View
- Events
- Tags
- Limits
- Instances
  - Instances (New)
  - Instance Types
  - Launch Templates
  - Spot Requests
  - Savings Plans
  - Reserved Instances (New)
  - Dedicated Hosts
  - Scheduled Instances

The main content area displays the "Create Load Balancer" wizard with the following steps:

- Create Load Balancer** (button)
- Actions** (dropdown)
- Filter by tags and attributes or search by keyword** (input field)
- Name** (dropdown)
- DNS name** (dropdown)
- State** (dropdown)
- VPC ID** (dropdown)
- Availability Zones** (dropdown)

The message "You do not have any load balancers in this region." is displayed.

**Select a load balancer** (button)

The screenshot then transitions to the "Select CreateELBWizard" screen, which compares three types of Load Balancers:

- Application Load Balancer** (Info): Handles HTTP and HTTPS traffic, routing requests to Lambda functions, API Gateways, and Amazon EC2 instances.
- Network Load Balancer** (Info): Handles TCP, UDP, and TLS traffic, offloading TLS to VPC endpoints and supporting static IP addresses.
- Gateway Load Balancer** (Info): Handles traffic from third-party virtual appliances supporting GENEVE, including security and policy controls.

Each section includes a "Create" button.

The browser status bar shows the date and time: 05-08-2022 22:36.

AMIs [New](#)

AMI Catalog

Elastic Block Store

Volumes [New](#)

Snapshots [New](#)

Lifecycle Manager [New](#)

Network & Security

Security Groups

Elastic IPs

Placement Groups

Key Pairs

Network Interfaces

Load Balancing

Load Balancers

**Target Groups** [New](#)

Auto Scaling

Launch Configurations

Auto Scaling Groups

**Target groups** [Info](#)

Search or filter target groups

Name ARN Port Protocol Target type Load balancer

No target groups

You don't have any target groups in us-east-1

Create target group

0 target groups selected

Select a target group above.

Feedback Looking for language selection? Find it in the new [Unified Settings](#)

© 2022, Amazon Internet Services Private Ltd. or its affiliates. Privacy Terms Cookie preferences

Cloudy 27°C ENG IN 22:40 05-08-2022

cap PuT Net Req java hov (2) Me hov Def Gitl Nev Shc pdf PDI +

Gmail Maps YouTube Great Learning excelinlife/FullStack... google GitHub - GoogleK... Application Saved MySQL :: Download... Prime Video

aws Services Search for services, features, blogs, docs, and more [Alt+S]

**Target group name**  
CapstoneBatch1STG  
A maximum of 32 alphanumeric characters including hyphens are allowed, but the name must not begin or end with a hyphen.

**Protocol** Port  
HTTP : 80

**VPC**  
Select the VPC with the instances that you want to include in the target group.  
vpc-0c76702d47839625  
IP: 172.31.0.0/16

**Protocol version**

**HTTP1** Send requests to targets using HTTP/1.1. Supported when the request protocol is HTTP/1.0 or HTTP/2.

**HTTP2** Send requests to targets using HTTP/2. Supported when the request protocol is HTTP/2 or gRPC, but gRPC-specific features are not available.

**gRPC** Send requests to targets using gRPC. Supported when the request protocol is gRPC.

**Health checks**  
The associated load balancer periodically sends requests, per the settings below, to the registered targets to test their status.

Health check protocol

Targets (4)									Remove all pending	
Remove	Health status	Instance ID	Name	Port	State	Security groups	Zone	Subnet ID		
×	Pending	i-0f255e067fd4c82fa	backendserver3	80	✓ running	CapstoneB15_SG	us-east-1c	subnet-0a4		
×	Pending	i-043b4b071e33dc245	MySQL_Instance	80	✓ running	CapstoneB15_SG	us-east-1b	subnet-0ee		
×	Pending	i-0a73b7e00546e3ea4	backendserver4	80	✓ running	CapstoneB15_SG	us-east-1b	subnet-0ee		
×	Pending	i-02635366fc04e5fd7	backendserver2	80	✓ running	CapstoneB15_SG	us-east-1b	subnet-0ee		

4 pending

Cancel

Previous

Create target group

Feedback Looking for language selection? Find it in the new Unified Settings 

© 2022, Amazon Internet Services Private Ltd. or its affiliates. Privacy Terms Cookie preferences

Cloudy 27°C ENG IN 22:43 05-08-2022

us-east-1.console.aws.amazon.com/ec2/v2/home?region=us-east-1#CreateLBWizardSuccess:loadBalancerArn=arn:aws:elasticloadbalancing:us-...

Gmail Maps YouTube Great Learning excelinlife/FullStack... google GitHub - GoogleK... Application Saved MySQL :: Download... Prime Video

aws Services Search for services, features, blogs, docs, and more [Alt+S]

Successfully created load balancer: Capstone15LoadBalancer

Note: It might take a few minutes for your load balancer to be fully set up and ready to route traffic. Targets will also take a few minutes to complete the registration process and pass initial health checks.

EC2 > Load balancers > Create Application Load Balancer

Create Application Load Balancer

**Suggested next steps**

- Review, customize, or enable attributes for your load balancer and listeners using the **Description** and **Listeners** tabs within **Capstone15LoadBalancer**.
- Discover other services that you can integrate with your load balancer. Visit the **Integrated services** tab within **Capstone15LoadBalancer**.

**View load balancer**

Feedback Looking for language selection? Find it in the new Unified Settings 

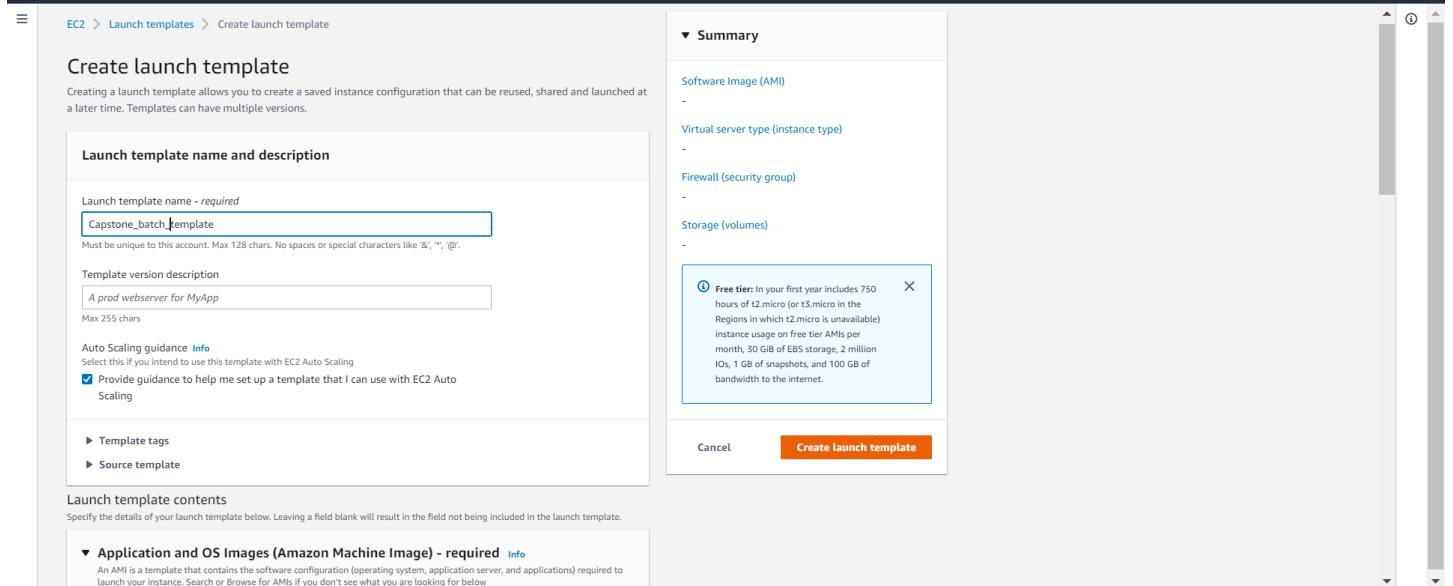
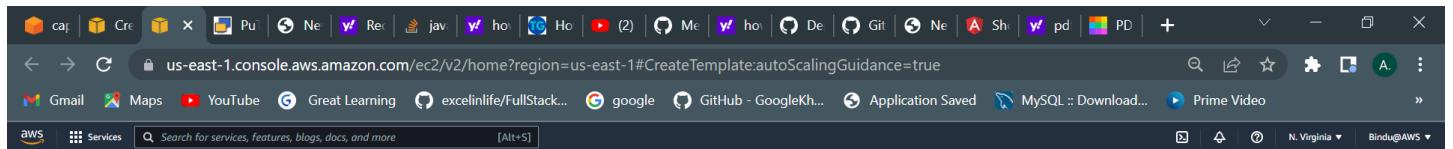
© 2022, Amazon Internet Services Private Ltd. or its affiliates. Privacy Terms Cookie preferences

Cloudy 27°C ENG IN 22:45 05-08-2022

## Auto scaling:

The screenshot shows the AWS EC2 Auto Scaling homepage. On the left, a sidebar lists various AWS services. The main content area features a large heading 'Amazon EC2 Auto Scaling' with the subtext 'helps maintain the availability of your applications'. Below this is a diagram titled 'How it works' showing an 'Auto Scaling group' with three instances. It illustrates the 'Desired capacity' (two solid boxes) within the 'Minimum size' (one solid box) and 'Maximum size' (four solid boxes) boundaries, with a dashed box representing 'Scale out as needed'. To the right, a 'Pricing' section states that there are no additional fees beyond the service fees for Amazon EC2, CloudWatch (for scaling policies), and other AWS resources. A 'Getting started' section provides links to 'What is Amazon EC2 Auto Scaling?', 'Getting started with Amazon EC2 Auto Scaling', and 'Set up a scaled and load-balanced application'.

The screenshot shows the 'Create launch template' page. The left sidebar shows the 'EC2' service. The main form is titled 'Create launch template' and includes fields for 'Launch template name' (set to 'Capstone\_batch1\_template'), 'Template version description' (set to 'A prod webserver for MyApp'), and 'Auto Scaling guidance' (with a checked checkbox for 'Provide guidance to help me set up a template that I can use with EC2 Auto Scaling'). The right side features a 'Summary' section with collapsed sections for 'Software Image (AMI)', 'Virtual server type (instance type)', 'Firewall (security group)', and 'Storage (volumes)'. A callout box for the 'Free tier' is shown, stating: 'Free tier: In your first year includes 750 hours of t2.micro (or t3.micro in the Regions in which t2.micro is unavailable) instance usage on free tier AMIs per month, 30 GB of EBS storage, 2 million IOPS, 1 GB of snapshots, and 100 GB of bandwidth to the internet.' At the bottom are 'Cancel' and 'Create launch template' buttons.



**Create launch template**

Creating a launch template allows you to create a saved instance configuration that can be reused, shared and launched at a later time. Templates can have multiple versions.

**Launch template name and description**

Launch template name - required

Capstone\_batch\_template

Must be unique to this account. Max 128 chars. No spaces or special characters like '&', '\*', '@'.

Template version description

A prod webserver for MyApp

Max 255 chars

Auto Scaling guidance [Info](#)

Select this if you intend to use this template with EC2 Auto Scaling

Provide guidance to help me set up a template that I can use with EC2 Auto Scaling

► **Template tags**

► **Source template**

**Launch template contents**

Specify the details of your launch template below. Leaving a field blank will result in the field not being included in the launch template.

▼ **Application and OS Images (Amazon Machine Image) - required [Info](#)**

An AMI is a template that contains the software configuration (operating system, application server, and applications) required to launch your instance. Search or Browse for AMIs if you don't see what you are looking for below.

**Summary**

Software Image (AMI)

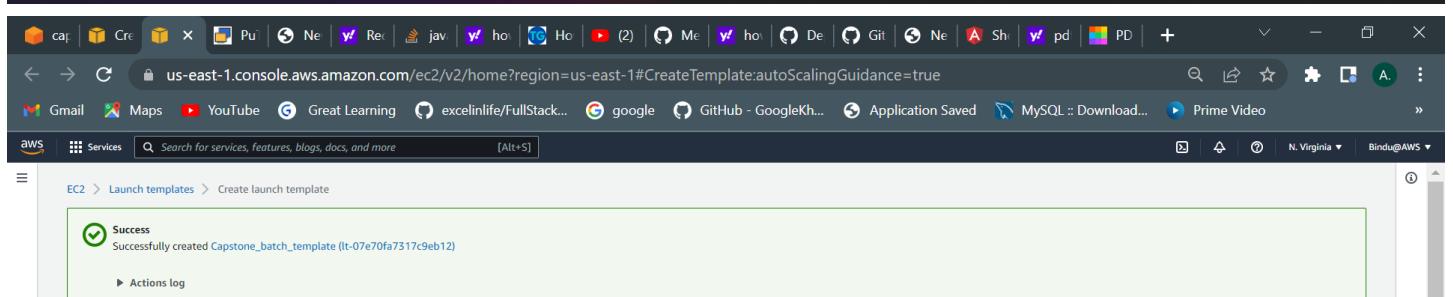
Virtual server type (instance type)

Firewall (security group)

Storage (volumes)

**Free tier:** In your first year includes 750 hours of t2.micro (or t3.micro in the Regions in which t2.micro is unavailable) instance usage on free tier AMIs per month, 30 GB of EBS storage, 2 million I/Os, 1 GB of snapshots, and 100 GB of bandwidth to the internet.

Cancel **Create launch template**



**Success**

Successfully created Capstone\_batch\_template (lt-07e70fa7317c9eb12)

► Actions log

**Next steps**

**Launch an instance**

With On-Demand Instances, you pay for compute capacity by the second (for Linux, with a minimum of 60 seconds) or by the hour (for all other operating systems) with no long-term commitments or upfront payments. Launch an On-Demand Instance from your launch template.

**Launch instance from this template**

**Create an Auto Scaling group from your template**

Amazon EC2 Auto Scaling helps you maintain application availability and allows you to scale your Amazon EC2 capacity up or down automatically according to conditions you define. You can use Auto Scaling to help ensure that you are running your desired number of Amazon EC2 instances during demand spikes to maintain performance and decrease capacity during lulls to reduce costs.

**Create Auto Scaling group**

**Create Spot Fleet**

A Spot Instance is an unused EC2 instance that is available for less than the On-Demand price. Because Spot Instances enable you to request unused EC2 instances at steep discounts, you can lower your Amazon EC2 costs significantly. The hourly price for a Spot Instance (of each instance type in each Availability Zone) is set by Amazon EC2, and adjusted gradually based on the long-term supply of and demand for Spot Instances. Spot instances are well-suited for data-analysis, batch jobs, background processing, and optional tasks.

**Create Spot Fleet**

**View launch templates**



## 4) starting backend in the ubuntu server

```
C:\Users\BINDU SRI.DESKTOP > + | Are you sure you want to continue connecting (yes/no/[fingerprint])? Warning: Permanently added '174.129.75.71' (ED25519) to the list of known hosts. MySQL_Instance.pem 100% 1678 5.9KB/s 00:00 C:\Users\BINDU SRI.DESKTOP-PEMUKG6\OneDrive\Desktop>ssh -i MySQL_Instance.pem ubuntu@174.129.75.71 Welcome to Ubuntu 20.04.4 LTS (GNU/Linux 5.13.0-1029-aws x86_64) * Documentation: https://help.ubuntu.com * Management: https://landscape.canonical.com * Support: https://ubuntu.com/advantage System information as of Fri Aug 5 11:37:47 UTC 2022 System load: 0.01 Processes: 103 Usage of /: 19.5% of 7.58GB Users logged in: 0 Memory usage: 20% IPv4 address for eth0: 172.31.90.15 Swap usage: 0% 1 update can be applied immediately. To see these additional updates run: apt list --upgradable The list of available updates is more than a week old. To check for new updates run: sudo apt update To run a command as administrator (user "root"), use "sudo <command>". See "man sudo_root" for details. ubuntu@ip-172-31-90-15:~$ client_loop: send disconnect: Connection reset C:\Users\BINDU SRI.DESKTOP-PEMUKG6\OneDrive\Desktop> C:\Users\BINDU SRI.DESKTOP-PEMUKG6\OneDrive\Desktop>java -version java version "18.0.1" 2022-04-19 Java(TM) SE Runtime Environment (build 18.0.1+10-24) Java HotSpot(TM) 64-Bit Server VM (build 18.0.1+10-24, mixed mode, sharing) C:\Users\BINDU SRI.DESKTOP-PEMUKG6\OneDrive\Desktop>ssh -i MySQL_Instance.pem ubuntu@174.129.75.71 Welcome to Ubuntu 20.04.4 LTS (GNU/Linux 5.13.0-1029-aws x86_64) * Documentation: https://help.ubuntu.com * Management: https://landscape.canonical.com * Support: https://ubuntu.com/advantage System information as of Fri Aug 5 11:39:36 UTC 2022 System load: 0.0 Processes: 106 Usage of /: 19.5% of 7.58GB Users logged in: 1 Memory usage: 20% IPv4 address for eth0: 172.31.90.15 Swap usage: 0% 1 update can be applied immediately. To see these additional updates run: apt list --upgradable The list of available updates is more than a week old. To check for new updates run: sudo apt update Last login: Fri Aug 5 11:37:48 2022 from 106.217.207.167 To run a command as administrator (user "root"), use "sudo <command>". See "man sudo_root" for details. ubuntu@ip-172-31-90-15:~$ |
```

```
ubuntu@ip-172-31-90-15:~ x + v
Last login: Fri Aug  5 11:37:48 2022 from 106.217.207.167
To run a command as administrator (user "root"), use "sudo <command>".
See "man sudo_root" for details.

ubuntu@ip-172-31-90-15:~$ java -version
Command 'java' not found, but can be installed with:

sudo apt install openjdk-11-jre-headless  # version 11.0.15+10-0ubuntu0.20.04.1, or
sudo apt install default-jre             # version 2:1.11-72
sudo apt install openjdk-16-jre-headless # version 16.0.1+9-1~20.04
sudo apt install openjdk-17-jre-headless # version 17.0.3+7-0ubuntu0.20.04.1
sudo apt install openjdk-8-jre-headless  # version 8u312-b07-0ubuntu1~20.04
sudo apt install openjdk-13-jre-headless # version 13.0.7+5-0ubuntu1~20.04

ubuntu@ip-172-31-90-15:~$ sudo apt install openjdk-11-jre-headless
Reading package lists... Done
Building dependency tree
Reading state information... Done
The following additional packages will be installed:
  ca-certificates-java fontconfig-config fonts-dejavu-core java-common libavahi-client3 libavahi-common-data libavahi-common3
  libcups2 libfontconfig1 libgraphite2-3 libharfbuzz0b libjpeg-turbo8 libjpeg8 liblcms2-2 libpcsscl1
Suggested packages:
  default-jre cups-common liblcms2-utils pcscd libnss-mdns fonts-dejavu-extra fonts-ipafont-gothic fonts-ipafont-mincho
  fonts-way-microhei | fonts-wqy-zenhei fonts-indic
The following NEW packages will be installed:
  ca-certificates-java fontconfig-config fonts-dejavu-core java-common libavahi-client3 libavahi-common-data libavahi-common3
  libcups2 libfontconfig1 libgraphite2-3 libharfbuzz0b libjpeg-turbo8 libjpeg8 liblcms2-2 libpcsscl1 openjdk-11-jre-headless
0 upgraded, 16 newly installed, 0 to remove and 0 not upgraded.
Need to get 39.6 MB of archives.
After this operation, 178 MB of additional disk space will be used.
Do you want to continue? [Y/n] |
```

```
ubuntu@ip-172-31-90-15: ~ + ^

Adding debian:Trustwave_Global_ECC_P256_Certification_Authority.pem
Adding debian:SSL_com_EV_Root_Certification_Authority_ECC.pem
Adding debian:QuoVadis_Root_CA_2_G3.pem
Adding debian:QuoVadis_Root_CA_1_G3.pem
Adding debian:T-TeleSec_GlobalRoot_Class_2.pem
Adding debian:GlobalSign_Root_CA.pem
Adding debian:Certum_Trusted_Root_CA.pem
done.
Processing triggers for libc-bin (2.31-0ubuntu9.9) ...
Processing triggers for man-db (2.9.1-1) ...
Processing triggers for ca-certificates (20211016~20.04.1) ...
Updating certificates in /etc/ssl/certs...
0 added, 0 removed; done.
Running hooks in /etc/ca-certificates/update.d...

done.
done.
Setting up openjdk-11-jre-headless:amd64 (11.0.15+10~0ubuntu0.20.04.1) ...
update-alternatives: using /usr/lib/jvm/java-11-openjdk-amd64/bin/java to provide /usr/bin/java (java) in auto mode
update-alternatives: using /usr/lib/jvm/java-11-openjdk-amd64/bin/jjs to provide /usr/bin/jjs (jjs) in auto mode
update-alternatives: using /usr/lib/jvm/java-11-openjdk-amd64/bin/keytool to provide /usr/bin/keytool (keytool) in auto mode
update-alternatives: using /usr/lib/jvm/java-11-openjdk-amd64/bin/rmid to provide /usr/bin/rmid (rmid) in auto mode
update-alternatives: using /usr/lib/jvm/java-11-openjdk-amd64/bin/rmiregistry to provide /usr/bin/rmiregistry (rmiregistry) in auto mode
update-alternatives: using /usr/lib/jvm/java-11-openjdk-amd64/bin/pack200 to provide /usr/bin/pack200 (pack200) in auto mode
update-alternatives: using /usr/lib/jvm/java-11-openjdk-amd64/bin/unpack200 to provide /usr/bin/unpack200 (unpack200) in auto mode
update-alternatives: using /usr/lib/jvm/java-11-openjdk-amd64/lib/jexec to provide /usr/bin/jexec (jexec) in auto mode
ubuntu@ip-172-31-90-15:~$ java -version
openjdk version "11.0.15" 2022-04-19
OpenJDK Runtime Environment (build 11.0.15+10~Ubuntu-0ubuntu0.20.04.1)
OpenJDK 64-Bit Server VM (build 11.0.15+10~Ubuntu-0ubuntu0.20.04.1, mixed mode, sharing)
ubuntu@ip-172-31-90-15:~$
```

```
ubuntu@ip-172-31-90-15:~ x + | v
C:\Users\BINDU SRI.DESKTOP-PEMUKG6\OneDrive\Desktop>ssh -i MySQL_Instance.pem ubuntu@174.129.75.71
Welcome to Ubuntu 20.04.4 LTS (GNU/Linux 5.13.0-1029-aws x86_64)

 * Documentation:  https://help.ubuntu.com
 * Management:    https://landscape.canonical.com
 * Support:       https://ubuntu.com/advantage

 System information as of Fri Aug  5 12:39:57 UTC 2022

 System load:  0.0          Processes:      108
 Usage of /:   21.9% of 7.58GB  Users logged in:   1
 Memory usage: 22%          IPv4 address for eth0: 172.31.90.15
 Swap usage:   0%

0 updates can be applied immediately.

Last login: Fri Aug  5 11:39:37 2022 from 106.217.207.167
ubuntu@ip-172-31-90-15:~$ wget https://capstoneb15s3.s3.amazonaws.com/shop-for-home-server-0.0.1-SNAPSHOT.jar
--2022-08-05 12:40:43-- https://capstoneb15s3.s3.amazonaws.com/shop-for-home-server-0.0.1-SNAPSHOT.jar
Resolving capstoneb15s3.s3.amazonaws.com (capstoneb15s3.s3.amazonaws.com)... 52.217.230.33
Connecting to capstoneb15s3.s3.amazonaws.com (capstoneb15s3.s3.amazonaws.com)|52.217.230.33|:443... connected.
HTTP request sent, awaiting response... 200 OK
Length: 46213189 (44M) [application/x-www-form-urlencoded]
Saving to: 'shop-for-home-server-0.0.1-SNAPSHOT.jar'

shop-for-home-server-0.0.1-SNAPSHOT 100%[=====] 44.07M 79.3MB/s in 0.6s

2022-08-05 12:40:44 (79.3 MB/s) - 'shop-for-home-server-0.0.1-SNAPSHOT.jar' saved [46213189/46213189]

ubuntu@ip-172-31-90-15:~$ |
```

```
ubuntu@ip-172-31-90-15:~ x + | v
2022-08-05 12:40:44 (79.3 MB/s) - 'shop-for-home-server-0.0.1-SNAPSHOT.jar' saved [46213189/46213189]

ubuntu@ip-172-31-90-15:~$ ls
MySQL_Instance.pem  shop-for-home-server-0.0.1-SNAPSHOT.jar
ubuntu@ip-172-31-90-15:~$ java -jar shop-for-home-server-0.0.1-SNAPSHOT.jar

:
: Spring Boot ::

2022-08-05 12:42:30.926  INFO 14764 --- [           main] c.w.s.ShopForHomeServerApplication      : Starting ShopForHomeServerApplication v0.0.1-SNAPSHOT using Java 11.0.15 on ip-172-31-90-15 with PID 14764 (/home/ubuntu/shop-for-home-server-0.0.1-SNAPSHOT.jar started by ubuntu in /home/ubuntu)
2022-08-05 12:42:30.930  INFO 14764 --- [           main] c.w.s.ShopForHomeServerApplication      : No active profile set, falling back to 1 default profile: "default"
2022-08-05 12:42:33.799  INFO 14764 --- [           main] o.s.cloud.context.scope.GenericScope    : BeanFactory id=8b1da36a-772b-3dd0-851b-dda5fcfd353e2
2022-08-05 12:42:34.609  INFO 14764 --- [           main] o.s.b.w.embedded.tomcat.TomcatWebServer : Tomcat initialized with port(s): 8761 (http)
2022-08-05 12:42:34.634  INFO 14764 --- [           main] o.apache.catalina.core.StandardService : Starting service [Tomcat]
2022-08-05 12:42:34.635  INFO 14764 --- [           main] o.apache.catalina.core.StandardEngine  : Starting Servlet engine: [Apache Tomcat/9.0.64]
2022-08-05 12:42:34.837  INFO 14764 --- [           main] o.a.c.c.C.[Tomcat].[localhost].[/]      : Initializing Spring embedded WebApplicationContext
2022-08-05 12:42:34.842  INFO 14764 --- [           main] w.s.c.ServletWebServerApplicationContext : Root WebApplicationContext: initialization completed in 3790 ms

ubuntu@ip-172-31-90-15:~ x + | v
28°C
Cloudy
18:12
ENG IN
05-08-2022
```

## 5) Now static hosting the front end from the s3 bucket

Amazon S3 > Buckets > capstoneb15s3

Objects (5)

Name	Type	Last modified	Size	Storage class
dist/	Folder	-	-	-
shop-for-home-0.0.1-SNAPSHOT.jar	jar	August 5, 2022, 19:30:38 (UTC+05:30)	60.4 MB	Standard
shop-for-home-discount-service-0.0.1-SNAPSHOT.jar	jar	August 5, 2022, 17:51:12 (UTC+05:30)	57.1 MB	Standard
shop-for-home-report-service-0.0.1-SNAPSHOT.jar	jar	August 5, 2022, 17:51:12 (UTC+05:30)	37.2 MB	Standard
shop-for-home-server-0.0.1-SNAPSHOT.jar	jar	August 5, 2022, 19:47:47 (UTC+05:30)	44.1 MB	Standard

Feedback Looking for language selection? Find it in the new Unified Settings

Amazon S3 > Buckets > capstoneb15s3

Object Lock

Store objects using a write-once-read-many (WORM) model to help you prevent objects from being deleted or overwritten for a fixed amount of time or indefinitely. [Learn more](#)

Object Lock  
Disabled

Amazon S3 currently does not support enabling Object Lock after a bucket has been created. To enable Object Lock for this bucket, contact Customer Support

Requester pays

When enabled, the requester pays for requests and data transfer costs, and anonymous access to this bucket is disabled. [Learn more](#)

Requester pays  
Disabled

Static website hosting

Use this bucket to host a website or redirect requests. [Learn more](#)

Static website hosting  
Disabled

Amazon S3 < Amazon S3 > Buckets > capstoneb15s3 > Edit static website hosting

**Edit static website hosting** [Info](#)

**Static website hosting**  
Use this bucket to host a website or redirect requests. [Learn more](#)

**Static website hosting**  
 Enable  
 Disable

**Hosting type**  
 Host a static website  
Use the bucket endpoint as the web address. [Learn more](#)  
 Redirect requests for an object  
Redirect requests to another bucket or domain. [Learn more](#)

**Index document**  
Specify the home or default page of the website.

For your customers to access content at the website endpoint, you must make all your content publicly readable. To do so, you can edit the S3 Block Public Access settings for the bucket. For more information, see [Using Amazon S3 Block Public Access](#)

Feedback Looking for language selection? Find it in the new [Unified Settings](#) © 2022, Amazon Internet Services Private Ltd. or its affiliates. Privacy Terms Cookie preferences 22:52 05-08-2022

Cloudy 27°C ENG IN

s3.console.aws.amazon.com/s3/buckets/capstoneb15s3?region=us-east-1&tab=properties

Gmail Maps YouTube Great Learning excelinlife/FullStack... google GitHub - GoogleK... Application Saved MySQL :: Download... Prime Video

aws Services Search for services, features, blogs, docs, and more [Alt+S]

**Amazon S3** < Successfully edited static website hosting.

**Buckets**  
Access Points  
Object Lambda Access Points  
Multi-Region Access Points  
Batch Operations  
Access analyzer for S3

Block Public Access settings for this account

**Storage Lens**  
Dashboards  
AWS Organizations settings

Feature spotlight

AWS Marketplace for S3

**Requester pays**  
When enabled, the requester pays for requests and data transfer costs, and anonymous access to this bucket is disabled. [Learn more](#) [Edit](#)

Requester pays  
Disabled

**Static website hosting**  
Use this bucket to host a website or redirect requests. [Learn more](#) [Edit](#)

Static website hosting  
Enabled

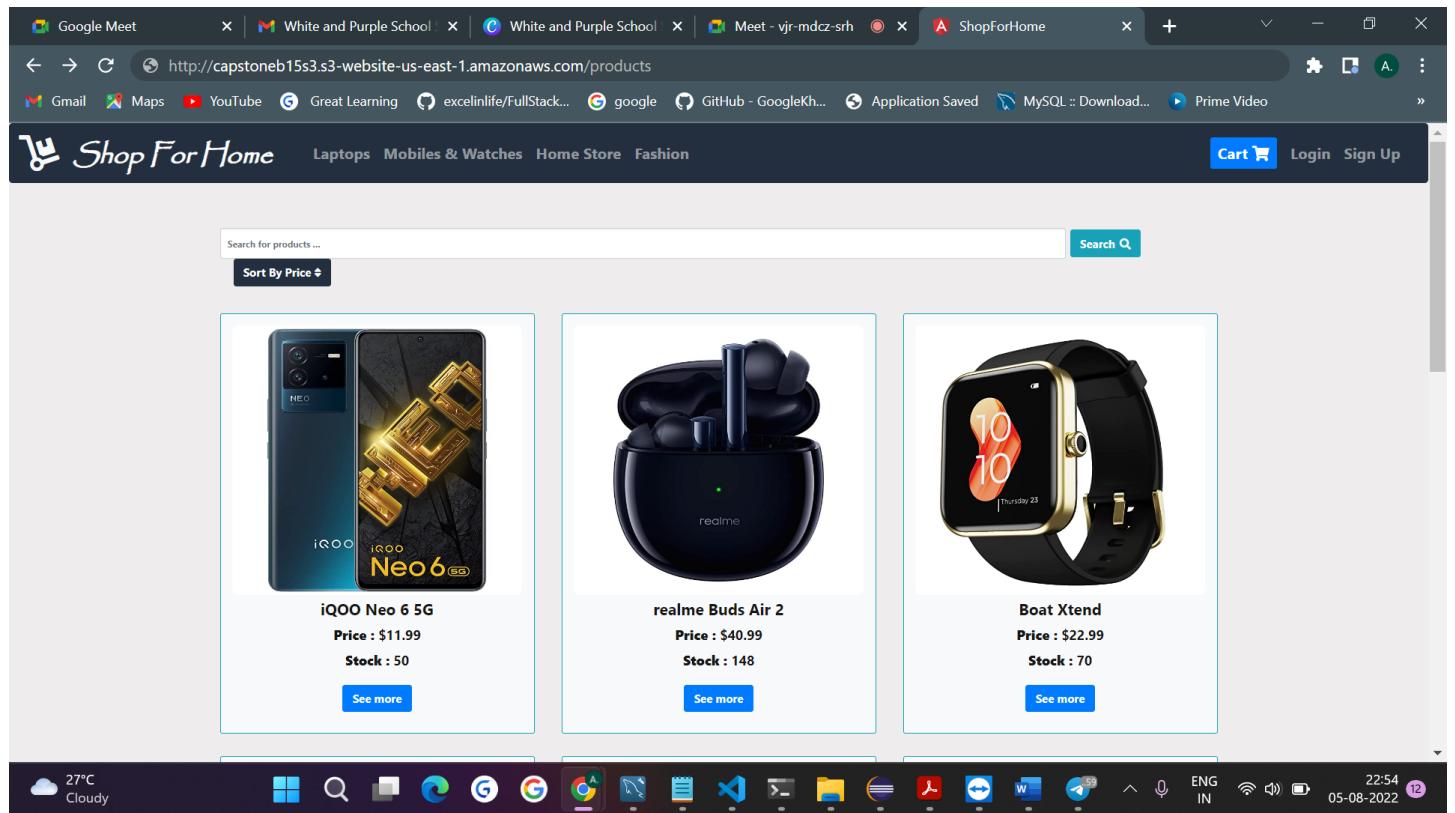
Hosting type  
Bucket hosting

Bucket website endpoint copied  
our bucket as a static website, the website is available at the AWS Region-specific website endpoint of the bucket. [Learn more](#)  
<http://capstoneb15s3.s3-website-us-east-1.amazonaws.com>

Feedback Looking for language selection? Find it in the new [Unified Settings](#) © 2022, Amazon Internet Services Private Ltd. or its affiliates. Privacy Terms Cookie preferences 22:52 05-08-2022

Cloudy 27°C ENG IN

## 6) Shop for Home application deployment from aws static website hosting end point



## **Conclusion:**

Technology has made significant progress over the years to provide consumers a better online shopping experience and will continue to do so for years to come. With the rapid growth of products and brands, people have speculated that online shopping will overtake in-store shopping. While this has been the case in some areas, there is still demand for brick-and-mortar stores in market areas where the consumer feels more comfortable seeing and touching the product being bought. However, the availability of online shopping has produced a more educated consumer that can shop around with relative ease without having to spend a large amount of time. In exchange, online shopping has opened up doors to many small retailers that would never be in business if they had to incur the high cost of owning a brick-and-mortar store. At the end, it has been a win-win situation for both consumer and sellers. Amazon Web Services (AWS) delivers a set of services that together form a reliable, scalable, and inexpensive computing platform 'in the cloud'. These pay-as-you-use cloud computing services include Amazon S3, Amazon EC2, Amazon DynamoDB, Amazon Glacier, Amazon Elastic MapReduce, and others. This session provides AWS best practices in the areas of choosing use cases, governing deployments, ensuring security, architecting to cloud strengths, and cost optimization.

