

Foodbox

Project Specification Document

Project and Developer details

Company name: Foodbox Pvt. Ltd.

Business goal: To create a dynamic and responsive online food delivery web application for ordering food items of different cuisines from a restaurant.

Developer details:

Name	Nirosh Prakash
Designation	Full stack developer
Company	Foodbox Pvt. Ltd.

Tools and Core concepts

Tools:

- Eclipse
- GitHub
- Jenkins
- AWS EC2/ Virtual machine

Key core concepts:

- HTML, Bootstrap, CSS, Javascript
- Spring Boot.
- JPA.
- Hibernate.
- Maven.
- MySQL.

Sprint Planning

Sprint 0

FB001	Story Points: 5
Setting up code base with necessary dependencies and adding the application properties.	

FB002	Story Points: 3
Configuring github and providing the necessary access to all the project team members.	

FB003	Story Points: 5
Configuring the EC2 instance. Installation of all the necessary software and providing access to the development team with appropriate access rights.	

FB004	Story Points: 3
Setting up Jenkins for continuous integration and continuous delivery. Providing the appropriate access rights to the team members.	

Sprint 1

FB005	Story Points: 3
Setting up the MySQL server and establishing the ER model required for the application.	

FB006	Story Points: 1
Creating the database and providing necessary access to the development team.	

FB007	Story Points: 3
Creating the database tables and populating the test data corresponding to each of the tables.	

FB008	Story Points:
Creating the initial frontend module. Development of the landing page with the necessary UI integration.	

FB009	Story Points: 3
Integration of the login pages for both general customers and admin users. Development of the new user registration form with the appropriate validations.	

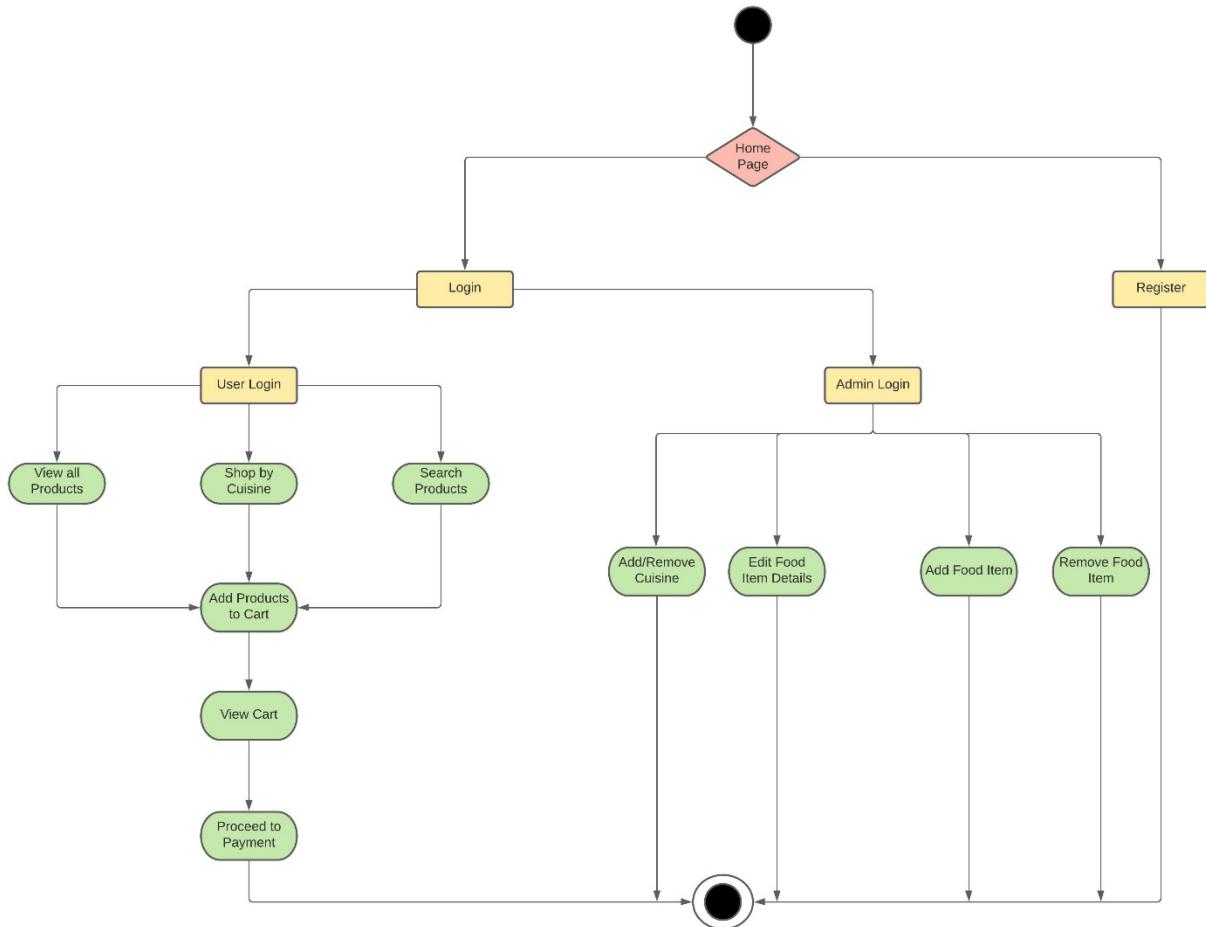
Sprint 2

FB010	Story Points: 3
Implementation of the login functionality for customers as well as admin users with appropriate connections to the database.	
FB011	Story Points: 5
Development of the 'View all Products' and 'Shop by Cuisine' feature.	
FB012	Story Points: 2
Implementation of the search functionality for the products.	
FB013	Story Points: 5
Implementation of the filtering and sorting functionality for the 'Sort by Cuisine' feature. Pagination to be integrated to display cuisine list.	
FB014	Story Points: 2
Development and integration of the cart page functionality. Integrating the payment page and the thank you page.	

Sprint 3

FB015	Story Points: 3
Performing sample automation testing and deployment of the code onto Github.	
FB016	Story Points: 2
End-to-end testing of the application. Bug fixes.	
FB017	Story Points: 3
Deployment of the tested application on the AWS EC2 instance	
FB018	Story Points: 2
Creation of the project specification document.	

Application Flowchart



Product capabilities

Foodbox is a dynamic and responsive online food delivery web application that is capable of performing the following operations:

1. Allow user registration.
2. Allow admin user login.
3. Allow customer login.

Business level operations for admin users:

- Add/Remove cuisines.
 - Edit food item details like name, price, cuisine, description etc.
 - Add new food item.
 - Remove previously existing food item.
4. Allow customers to search specific products, add them to the cart, make payment and checkout.
 5. Apply filters and sort results based on different cuisines.
 6. Allow customers to view all products, add them to the cart, make payment and checkout.
 7. Close the application.

Project creation snapshot

The screenshot shows the Spring Initializr interface for creating a Maven-based Spring Boot project named 'Foodbox'. The configuration includes Java 2.6.2, Spring Web, Spring Data JPA, JDBC API, Thymeleaf, and MySQL Driver. The 'Project Metadata' section shows Group as com.foodbox, Artifact as foodbox.com, Name as foodbox.com, Description as 'Web application for Foodbox.', Package name as com.foodbox, and Packaging as Jar. The 'Dependencies' section lists Spring Web (selected), Spring Data JPA, JDBC API, Thymeleaf, and MySQL Driver.

Project

- Maven Project
- Gradle Project

Language

- Java
- Kotlin
- Groovy

Spring Boot

- 2.7.0 (SNAPSHOT)
- 2.6.3 (SNAPSHOT)
- 2.6.2
- 2.5.9 (SNAPSHOT)
- 2.5.8

Project Metadata

Group	com.foodbox
Artifact	foodbox.com
Name	foodbox.com
Description	Web application for Foodbox.
Package name	com.foodbox
Packaging	<input checked="" type="radio"/> Jar <input type="radio"/> War
Java	<input type="radio"/> 17 <input type="radio"/> 11 <input checked="" type="radio"/> 8

Dependencies

Spring Web WEB

Build web, including RESTful, applications using Spring MVC. Uses Apache Tomcat as the default embedded container.

Spring Data JPA SQL

Persist data in SQL stores with Java Persistence API using Spring Data and Hibernate.

JDBC API SQL

Database Connectivity API that defines how a client may connect and query a database.

Thymeleaf TEMPLATE ENGINES

A modern server-side Java template engine for both web and standalone environments. Allows HTML to be correctly displayed in browsers and as static prototypes.

MySQL Driver SQL

MySQL JDBC and R2DBC driver.

Database Creation Snapshots

Database creation:

The screenshot shows the MySQL Workbench interface. In the top query editor, the command `create database foodbox;` is entered. In the bottom output window, the message "1 row(s) affected" is displayed, indicating the successful creation of the database.

#	Time	Action	Message
1	13:18:15	create database foodbox	1 row(s) affected

Creation of admin table:

The screenshot shows the MySQL Workbench interface. In the top query editor, the SQL code for creating the `admin` table is shown:

```
1  create table admin(
2      adminid varchar(50) not null,
3      pwd varchar(50) not null,
4      primary key(adminid)
5 );
```

In the second query editor, the command `select * from admin;` is executed. The results are displayed in a grid:

adminid	pwd
admin1@foodbox.com	admin1@123
admin2@foodbox.com	admin2@123
admin3@foodbox.com	admin3@123
admin4@foodbox.com	admin4@123
admin5@foodbox.com	admin5@123
*	NULL

Creation of **cuisine** table:

Query 1 ×

The screenshot shows the MySQL Workbench interface with a query editor titled "Query 1". The editor contains the SQL code for creating a table named "cuisine". The code includes columns for "cuisineid" (VARCHAR(50) NOT NULL) and "cuisinename" (VARCHAR(50) NOT NULL), with "cuisineid" designated as the primary key. The code is as follows:

```
1  create table cuisine(
2      cuisineid varchar(50) not null,
3      cuisinename varchar(50) not null,
4      primary key(cuisineid)
5  );
```

Query 1 ×

The screenshot shows the MySQL Workbench interface with a query editor titled "Query 1". The editor contains the SQL code for selecting all rows from the "cuisine" table. The code is as follows:

```
1 •  select * from cuisine;
```

Below the editor is a "Result Grid" window displaying the data from the "cuisine" table. The grid has two columns: "cuisineid" and "cuisinename". The data rows are:

	cuisineid	cuisinename
▶	FBC1	Indian
	FBC2	Chinese
	FBC3	Italian
	FBC4	Mexican
✳	NULL	NULL

Creation of **users** table:

Query 1 ×

File Edit View Insert Tools Help

1 **create table users(**
2 **userid varchar(50) not null,**
3 **fname varchar(50),**
4 **lname varchar(50),**
5 **userpwd varchar(50) not null,**
6 **primary key(userid)**
7 **);**

Query 1 ×

File Edit View Insert Tools Help

1 **select * from users;**

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

	userid	fname	lname	userpwd
▶	adam@foodbox.com	Adam	Michael	adam@123
	carter@foodbox.com	Carter	Miles	carter#123
	cindy@foodbox.com	Cindy	Nolan	\$321cindy
	jane@foodbox.com	Jane	Jaxon	@999jane#
	mason@foodbox.com	Mason	James	masonj@123
*	NULL	NULL	NULL	NULL

Creation of **products** table:

Query 1 ×

The screenshot shows the MySQL Workbench interface with a query editor titled "Query 1". The code entered is the SQL statement to create the "products" table. The table has columns for productid (integer, primary key), productname (varchar(50)), imagename (varchar(50)), productprice (integer), stock (integer), cuisineid (varchar(50)), and description (varchar(200)). It includes a foreign key constraint linking cuisineid to the cuisine table.

```
1  create table products(
2      productid integer not null,
3      productname varchar(50),
4      imagename varchar(50),
5      productprice integer,
6      stock integer,
7      cuisineid varchar(50),
8      description varchar(200),
9      primary key(productid),
10     foreign key(cuisineid) references cuisine(cuisineid)
11 );
```

Query 1 ×

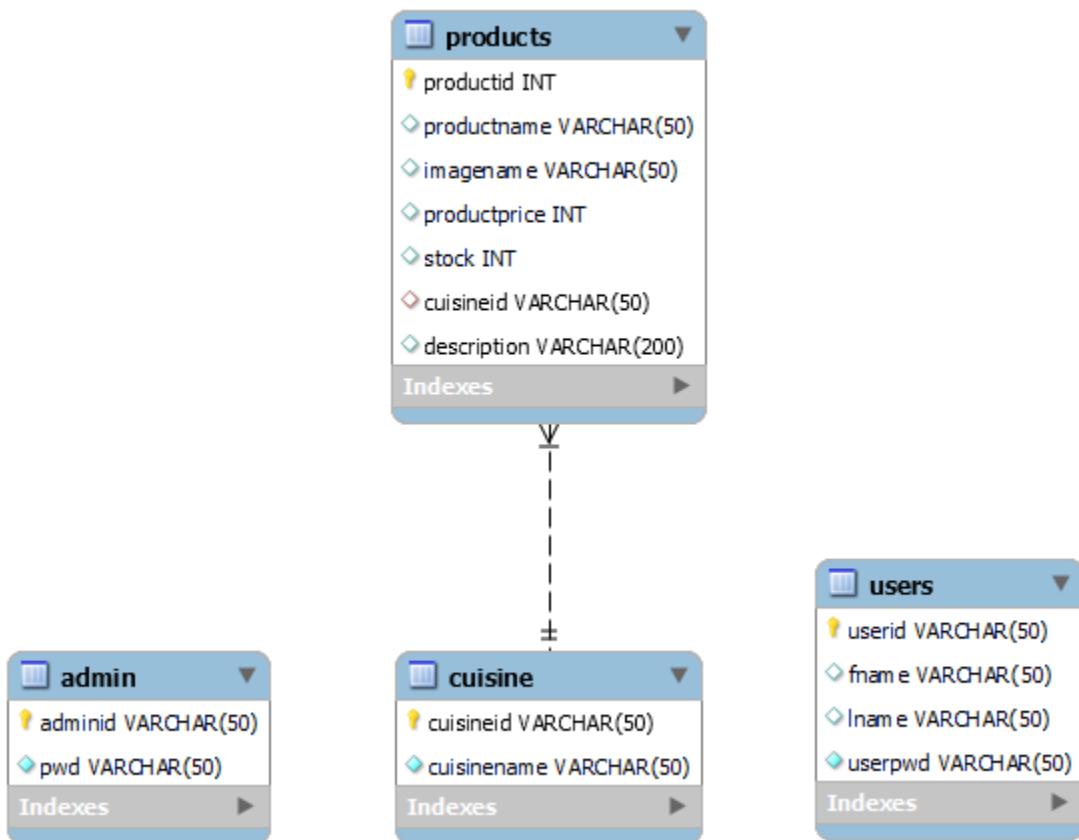
The screenshot shows the MySQL Workbench interface with a query editor titled "Query 1". The code entered is the SQL statement to select all columns from the "products" table. The results are displayed in a grid titled "Result Grid". The grid contains 14 rows of data, each representing a different food item with its details like name, price, and description.

productid	productname	imagename	productprice	stock	cuisineid	description
1	Dosa	dosa.jpg	50	200	FBC1	A dosa is a thin pancake or crepe originating fro...
2	Idli	idli.jpg	25	200	FBC1	Idli or idly are a type of savoury rice cake, origi...
3	Biryani	biryani.jpg	250	200	FBC1	Biryani is a mixed rice dish originating among th...
4	Chapati	chapati.jpg	20	200	FBC1	Chapati is an unleavened flatbread originating f...
5	Dim Sum	dimsum.jpg	200	200	FBC2	Dim sum is a large range of small Chinese dishes...
6	Hot and Sour Soup	soup.jpg	75	200	FBC2	Hot and sour soup is a soup from Asian culinary ...
7	Quick Noodles	quicknoodles.jpg	100	200	FBC2	Noodles are a type of food made from unleaven...
8	Szechwan Chilli Chicken	szechwanchicken.jpg	275	200	FBC2	Szechuan Chicken is a stir fry of crispy chicken t...
9	Margherita Pizza	margheritapizza.jpg	300	200	FBC3	Pizza margherita, as the Italians call it, is a simpl...
10	Lasagna	lasagna.jpg	150	200	FBC3	Lasagne are a type of pasta, possibly one of th...
11	Stuffed Ravioli	stuffedravioli.jpg	180	200	FBC3	Ravioli Stuffed with Mozzarella, Basil and Walnu...
12	Taco	taco.jpg	200	200	FBC4	A taco is a traditional Mexican dish consisting of...
13	Burrito	burrito.jpg	100	200	FBC4	A burrito is a dish in Mexican and Tex-Mex cui...
*	NULL	NULL	NULL	NULL	NULL	NULL

Database tables:

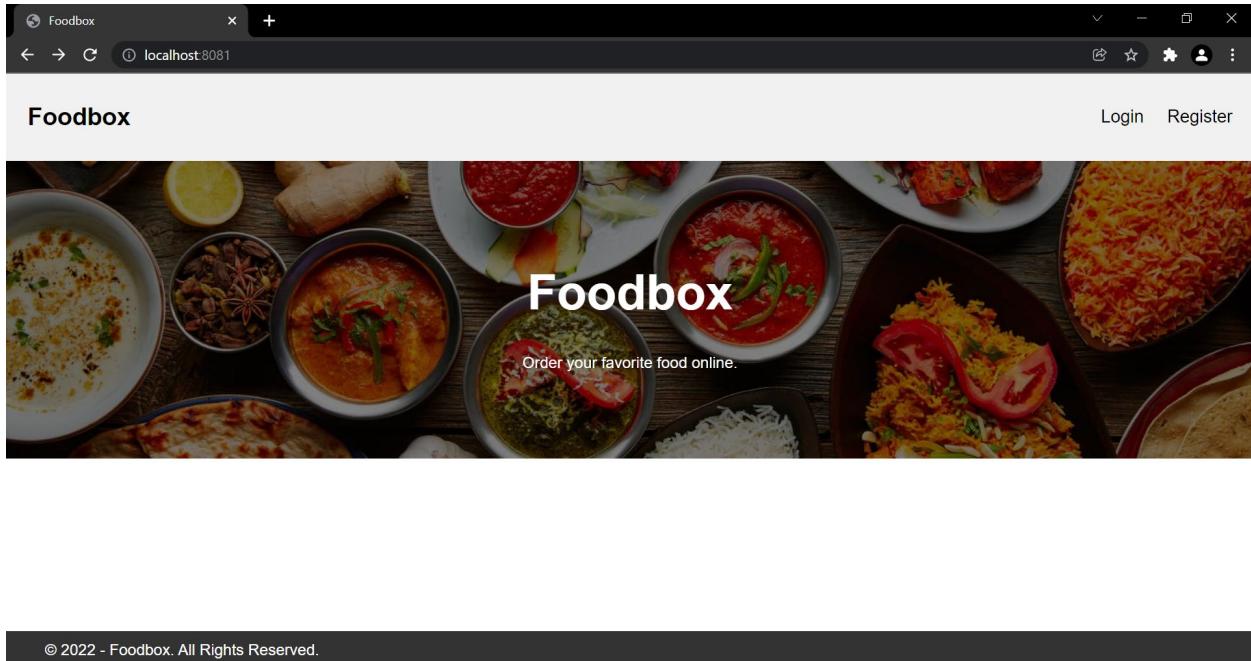


ER diagram:

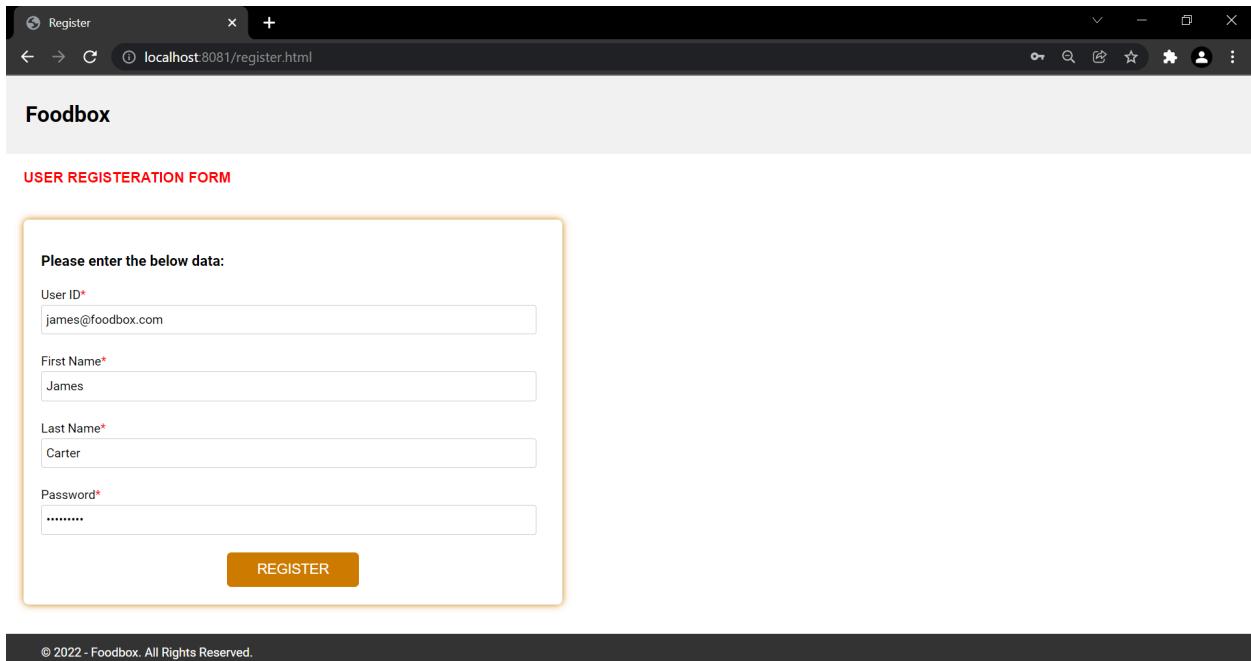


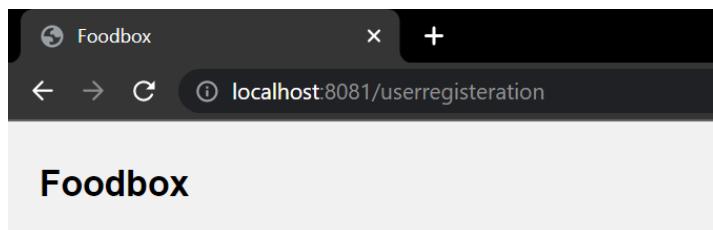
Application Snapshots

Home page:



New User registration:





User added successfully. Please login to continue.

Query 1

```
1 •  select * from users;
```

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

	userid	fname	lname	userpwd
▶	adam@foodbox.com	Adam	Michael	adam@123
	carter@foodbox.com	Carter	Miles	carter#123
	cindy@foodbox.com	Cindy	Nolan	\$321cindy
	james@foodbox.com	James	Carter	james@123
	jane@foodbox.com	Jane	Jaxon	@999jane#
	mason@foodbox.com	Mason	James	masonj@123
*	NULL	NULL	NULL	NULL

Login page:

Foodbox Login

localhost:8081/login.html

Welcome to Foodbox Login

[Login](#)

[Admin Login](#)

Customer login:

The screenshot shows a web browser window titled "Foodbox User Login" with the URL "localhost:8081/userlogin.html". The page has a light gray header with the word "Foodbox". Below the header is a section titled "User Login" in bold black font. It contains two input fields: "User name" with the value "adam@foodbox.com" and "Password" with the value ".....". Below these fields is a green rectangular button with the word "Login" in white. At the bottom of the page is a dark footer bar with the copyright text "© 2022 - Foodbox. All Rights Reserved."

User landing page:

The screenshot shows a web browser window titled "Foodbox" with the URL "localhost:8081/userlanding.html". The page has a light gray header with the word "Foodbox". Below the header are three buttons: "View all products" (white background), "Shop by cuisine" (dark purple background), and "View cart" (red background). A search bar with the placeholder "Search products" and the text "Try Dosa, Idli, Biryani....." is present. Below the search bar is a search input field with the placeholder "Search..". At the bottom is a green rectangular button with the word "Search" in white. A dark footer bar at the bottom contains the copyright text "© 2022 - Foodbox. All Rights Reserved."

View all products:

The screenshot shows a web browser window titled "Food Box" with the URL "localhost:8081/products.html". The page is titled "Foodbox" and features a "View cart" button. A grid of 12 food items is displayed in three rows of four. Each item has a thumbnail, name, price, a brief description, and an "Add to cart" button.

Dosa	Idli	Biryani	Chapati
Price: ₹ 50 A dosa is a thin pancake or crepe originating from South India, made from a fermented batter. + Add to cart	Price: ₹ 25 Idli or idy are a type of savoury rice cake, originating from the Indian subcontinent, popular as breakfast. + Add to cart	Price: ₹ 250 Biryani is a mixed rice dish originating among the people of the Indian subcontinent. It is made by adding rice and spices to meat. + Add to cart	Price: ₹ 20 Chapati is an unleavened flatbread originating from the Indian subcontinent and staple in India. + Add to cart
Dim Sum Price: ₹ 200 Dim sum is a large range of small Chinese dishes that are traditionally enjoyed in restaurants for brunch. + Add to cart	Hot and Sour Soup Price: ₹ 75 Hot and sour soup is a soup from Asian culinary traditions. + Add to cart	Quick Noodles Price: ₹ 100 Noodles are a type of food made from unleavened dough which is rolled flat and cut, stretched or extruded, into long strips or strings. + Add to cart	Szechuan Chilli Chicken Price: ₹ 275 Szechuan Chicken is a stir fry of crispy chicken thigh meat mixed with dried red chili peppers. + Add to cart
Margherita Pizza Price: ₹ 300 Pizza margherita, as the Italians call it, is a simple pizza hailing from Naples.	Lasagna Price: ₹ 150 Lasagne are a type of pasta, possibly one of the oldest types, made of very wide,	Stuffed Ravioli Price: ₹ 180 Ravioli Stuffed with Mozzarella, Basil and Walnut Pesto is a delicious Italian delight.	Taco Price: ₹ 200 A taco is a traditional Mexican dish consisting of a small hand-sized corn or wheat

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Shop by cuisine:

The screenshot shows a web browser window titled "Food Box" with the URL "localhost:8081/cuisines.html". The page is titled "Foodbox" and features a search bar and a dropdown for selecting the number of entries per page. A table lists four cuisines: Chinese, Indian, Italian, and Mexican, each enclosed in a green-bordered box.

Cuisine Name
Chinese
Indian
Italian
Mexican

Show 10 entries Search:

Showing 1 to 4 of 4 entries

Previous Next

Cuisine search and filter:

The screenshot shows a web application titled "Foodbox" running on "localhost:8081/cuisines.html". The page displays a table of cuisines with one entry: "Indian". A search bar at the top right contains the letter "Ind", which has filtered the results. The table has a header "Cuisine Name" and a single row with the cell "Indian". Navigation controls at the bottom show "Showing 1 to 1 of 1 entries (filtered from 4 total entries)" and a page number "1".

Food Box

localhost:8081/cuisines.html

Foodbox

Show 10 entries

Search: Ind

Cuisine Name

Indian

Showing 1 to 1 of 1 entries (filtered from 4 total entries)

Previous 1 Next

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Cuisine food items listing - Indian:

Screenshot of a web browser showing Indian cuisine food items listed on a Foodbox platform.

The page title is "Food Box" and the URL is "localhost:8081/cuisinefooditems.html".

Foodbox

[View cart](#)



Dosa
Price: ₹ 50
A dosa is a thin pancake or crepe originating from South India, made from a fermented batter.
[+ Add to cart](#)



Idli
Price: ₹ 25
Idli or idly are a type of savoury rice cake, originating from the Indian subcontinent, popular as breakfast.
[+ Add to cart](#)



Biryani
Price: ₹ 250
Biryani is a mixed rice dish originating among the people of the Indian subcontinent. It is made by adding rice and spices to meat.
[+ Add to cart](#)



Chapati
Price: ₹ 20
Chapati is an unleavened flatbread originating from the Indian subcontinent and staple in India.
[+ Add to cart](#)

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Cuisine food items listing - Italian:

Screenshot of a web browser showing Italian cuisine food items listed on a Foodbox platform.

The page title is "Food Box" and the URL is "localhost:8081/cuisinefooditems.html".

Foodbox

[View cart](#)



Margherita Pizza
Price: ₹ 300
Pizza margherita, as the Italians call it, is a simple pizza hailing from Naples.
[+ Add to cart](#)



Lasagna
Price: ₹ 150
Lasagne are a type of pasta, possibly one of the oldest types, made of very wide, flat sheets.
[+ Add to cart](#)



Stuffed Ravioli
Price: ₹ 180
Ravioli Stuffed with Mozzarella, Basil and Walnut Pesto is a delicious Italian delight, which can make for a perfect brunch delicacy.
[+ Add to cart](#)

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Product search:

The screenshot shows a web browser window titled "Foodbox" with the URL "localhost:8081/userlanding.html". The page has a light gray header with the "Foodbox" logo. Below the header are three buttons: "View all products" (dark purple), "Shop by cuisine" (dark purple), and "View cart" (red). A section titled "Search products" contains a search input field with the placeholder "Try Dosa, Idli, Biryani....." and a green "Search" button. The word "Biryani" is typed into the search input field. A red rectangular box highlights the search input field and the "Search" button. At the bottom of the page is a dark footer bar with the text "© 2022 - Foodbox. All Rights Reserved."

Product search result:

The screenshot shows a web browser window titled "Food Box" with the URL "localhost:8081/searchproduct.html". The page has a light gray header with the "Foodbox" logo. Below the header is a red "View cart" button. The main content area features a yellow card for a "Biryani" dish. It includes a small image of a bowl of biryani, the name "Biryani" in bold, and the price "Price: ₹ 250". Below the name is a brief description: "Biryani is a mixed rice dish originating among the people of the Indian subcontinent. It is made by adding rice and spices to meat." At the bottom of the card is a dark purple "Add to cart" button with the text "+ Add to cart". A dark footer bar at the bottom of the page contains the text "© 2022 - Foodbox. All Rights Reserved."

Add to cart:

localhost:8081 says
Item added to cart

Foodbox

Biryani

Price: ₹ 250

Biryani is a mixed rice dish originating among the people of the Indian subcontinent. It is made by adding rice and spices to meat.

+ Add to cart

View cart

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View cart:

Product	Name	Price	Quantity	Option
	Biryani	250	2	<button>Remove</button>
	Margherita Pizza	300	1	<button>Remove</button>
	Stuffed Ravioli	180	1	<button>Remove</button>

TOTAL : ₹ 980

Proceed to Payment

Payment page:

The screenshot shows a payment page for 'Foodbox' with the URL localhost:8081/payment.html. The page is divided into two main sections: 'Billing Address' and 'Payment'.
Billing Address:

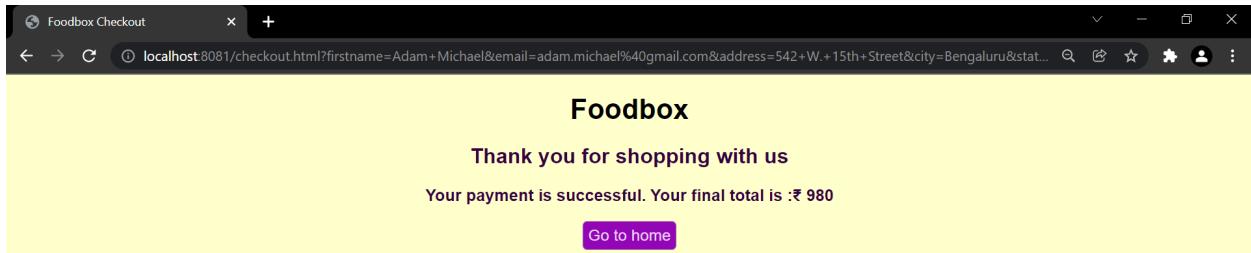
- Full Name: Adam Michael
- Email: adam.michael@gmail.com
- Address: 542 W. 15th Street
- City: Bengaluru
- State: KA
- Zip: 560035

Payment:

- Accepted Cards: VISA, MASTERCARD, AMEX, DISCOVER
- Name on Card: Adam Michal
- Credit card number: 5220-2105-6391-1289
- Exp Month: Septmeber
- Exp Year: 2023
- CVV: 352

A green 'Continue to checkout' button is at the bottom.

Thank you page:



Admin login:

The screenshot shows a web browser window titled "Foodbox Admin Login". The URL in the address bar is "localhost:8081/adminlogin.html". The page has a header "Foodbox" and a main title "Admin Login". It contains two input fields: "User name" with the value "admin1@foodbox.com" and "Password" with the value "*****". Below the password field is a green "Login" button. At the bottom of the page is a dark footer bar with the text "© 2022 - Foodbox. All Rights Reserved."

Admin Login

User name
admin1@foodbox.com

Password

Login

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Admin landing page:

The screenshot shows a web browser window titled "Foodbox". The URL in the address bar is "localhost:8081/adminlanding.html". The page has a header "Foodbox" and a central area containing four green buttons with white text: "Add/Remove Cuisine", "Edit Food Item Details", "Add Food Item", and "Remove Food Item". At the bottom of the page is a dark footer bar with the text "© 2022 - Foodbox. All Rights Reserved."

Add/Remove Cuisine

Edit Food Item Details

Add Food Item

Remove Food Item

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Add cuisine functionality:

Foodbox

ADD NEW CUISINE

Cuisine ID*
FBC5

Cuisine Name*
Japanese

ADD

REMOVE CUISINE

Cuisine ID*
[empty]

Cuisine Name*
[empty]

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Foodbox

Cuisine successfully added.

Query 1

1 • select * from cuisine;

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

	cuisineid	cuisinename
▶	FBC1	Indian
▶	FBC2	Chinese
▶	FBC3	Italian
▶	FBC4	Mexican
*	FBC5	Japanese
*	NULL	NULL

Remove cuisine functionality:

ADD NEW CUISINE

Cuisine ID*

Cuisine Name*

ADD

REMOVE CUISINE

Cuisine ID*

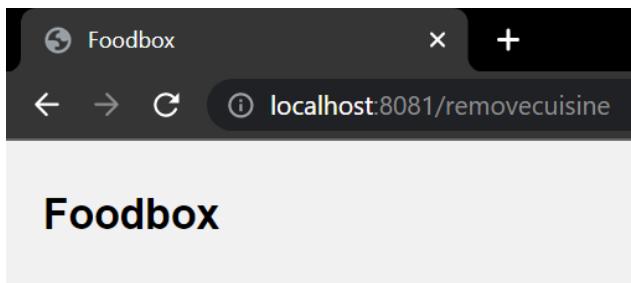
FBC5

Cuisine Name*

Japanese

REMOVE

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Cuisine successfully removed.

Query 1

1 • select * from cuisine;

Result Grid

cuisineid	cuisinename
FBC1	Indian
FBC2	Chinese
FBC3	Italian
FBC4	Mexican
*	NULL

Edit food item:

Food ID*

New name

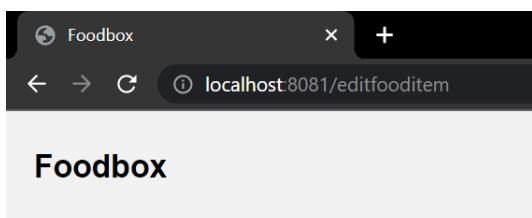
New price

New cuisine ID

New description

EDIT

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Query 1

1 • select * from products;

Result Grid

productid	productname	imagename	productprice	stock	cuisineid	description
1	Masala Dosa	dosa.jpg	60	200	FBC1	A dosa is a thin pancake or crepe originating fro...
2	Idli	idli.jpg	25	200	FBC1	Idli or idly are a type of savoury rice cake, origi...
3	Biryani	biryani.jpg	250	200	FBC1	Biryani is a mixed rice dish originating among th...
4	Chapati	chapati.jpg	20	200	FBC1	Chapati is an unleavened flatbread originating f...
5	Dim Sum	dimsum.jpg	200	200	FBC2	Dim sum is a large range of small Chinese dishes...
6	Hot and Sour Soup	soup.jpg	75	200	FBC2	Hot and sour soup is a soup from Asian culinary ...
7	Quick Noodles	quicknoodles.jpg	100	200	FBC2	Noodles are a type of food made from unleaven...
8	Szechwan Chilli Chicken	szechwanchicken.jpg	275	200	FBC2	Szechuan Chicken is a stir fry of crispy chicken t...
9	Margherita Pizza	margheritapizza.jpg	300	200	FBC3	Pizza margherita, as the Italians call it, is a simpl...
10	Lasagna	lasagna.jpg	150	200	FBC3	Lasagna are a type of pasta, possibly one of the...
11	Stuffed Ravioli	stuffedravioli.jpg	180	200	FBC3	Ravioli Stuffed with Mozzarella, Basil and Walnu...
12	Taco	taco.jpg	200	200	FBC4	A taco is a traditional Mexican dish consisting of...
13	Burrito	burrito.jpg	100	200	FBC4	A burrito is a dish in Mexican and Tex-Mex cui...
*	HULL	HULL	HULL	HULL	HULL	HULL

Add food item:

ADD FOOD ITEM

Food ID*
14

Name*
Rava Idli

Image*
 ravaидli.jpg

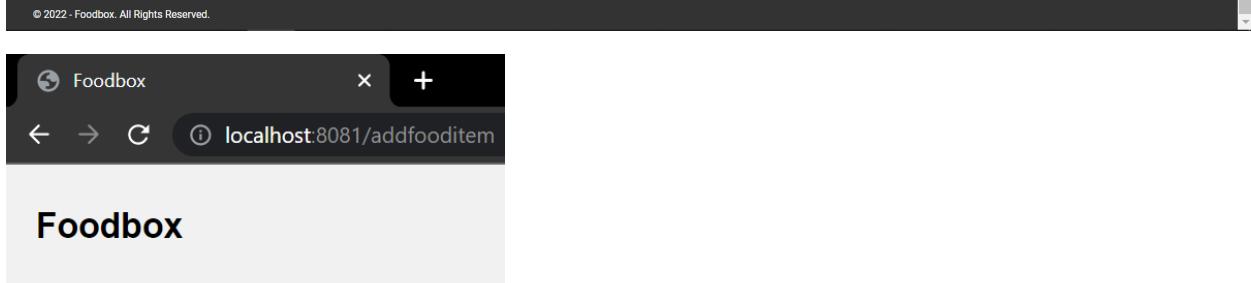
Price*
75

Stock*
200

Cuisine ID*
FBC1

Description*
Rava idli is a variation of the popular South Indian breakfast item idli, made with rava.

ADD



Query 1

```
1 • select * from products;
```

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

productid	productname	imagename	productprice	stock	cuisineid	description
1	Dosa	dosa.jpg	50	200	FBC1	A dosa is a thin pancake or crepe originating fro...
2	Idli	idli.jpg	25	200	FBC1	Idli or idly are a type of savoury rice cake, origi...
3	Biryani	biryani.jpg	250	200	FBC1	Biryani is a mixed rice dish originating among th...
4	Chapati	chapati.jpg	20	200	FBC1	Chapati is an unleavened flatbread originating f...
5	Dim Sum	dimsum.jpg	200	200	FBC2	Dim sum is a large range of small Chinese dishes...
6	Hot and Sour Soup	soup.jpg	75	200	FBC2	Hot and sour soup is a soup from Asian culinary ...
7	Quick Noodles	quicknoodles.jpg	100	200	FBC2	Noodles are a type of food made from unleavened...
8	Szechwan Chilli Chicken	szechwandchicken.jpg	275	200	FBC2	Szechuan Chicken is a stir fry of crispy chicken t...
9	Margherita Pizza	margheritapizza.jpg	300	200	FBC3	Pizza margherita, as the Italians call it, is a simpl...
10	Lasagna	lasagna.jpg	150	200	FBC3	Lasagne are a type of pasta, possibly one of the...
11	Stuffed Ravioli	stuffedravioli.jpg	180	200	FBC3	Ravioli Stuffed with Mozzarella, Basil and Walnu...
12	Taco	taco.jpg	200	200	FBC4	A taco is a traditional Mexican dish consisting of...
13	Burrito	burrito.jpg	100	200	FBC4	A burrito is a dish in Mexican and Tex-Mex cuis...
14	Rava Idli	ravaидli.jpg	75	200	FBC1	Rava idli is a variation of the popular South Indi...

Searching for newly added product:

The screenshot shows a web browser window titled "Foodbox". The address bar displays "localhost:8081/userlanding.html". The main content area features the "Foodbox" logo at the top. Below it are three buttons: "View all products" (purple), "Shop by cuisine" (purple), and "View cart" (red). A section titled "Search products" contains a placeholder text "Try Dosa, Idli, Biryani....." and a search input field containing "Rava Idli". A green "Search" button is positioned below the input field.

The screenshot shows a web browser window titled "Food Box". The address bar displays "localhost:8081/searchproduct.html". The main content area features the "Foodbox" logo at the top. Below it is a red "View cart" button. A product card for "Rava Idli" is displayed, featuring an image of the dish, the name "Rava Idli", and the price "Price: ₹ 75". A descriptive text states: "Rava idli is a variation of the popular South Indian breakfast item idli." At the bottom of the card is a purple "+ Add to cart" button. The footer of the page includes the copyright notice "© 2022 - Foodbox. All Rights Reserved."

Remove food item:

Remove food item

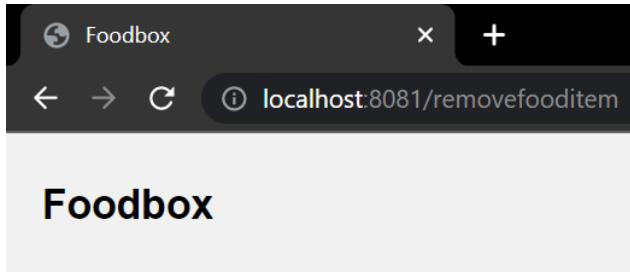
localhost:8081/removefooditem.html

Foodbox

REMOVE FOOD ITEM

Food ID*

Remove



Query 1

1 • select * from products;

Result Grid

productid	productname	imagename	productprice	stock	cuisineid	description
1	Dosa	dosa.jpg	50	200	FBC1	A dosa is a thin pancake or crepe originating fro...
2	Idli	idli.jpg	25	200	FBC1	Idli or idly are a type of savoury rice cake, origi...
3	Biryani	biryani.jpg	250	200	FBC1	Biryani is a mixed rice dish originating among th...
4	Chapati	chapati.jpg	20	200	FBC1	Chapati is an unleavened flatbread originating f...
5	Dim Sum	dimsum.jpg	200	200	FBC2	Dim sum is a large range of small Chinese dishes...
6	Hot and Sour Soup	soup.jpg	75	200	FBC2	Hot and sour soup is a soup from Asian culinary ...
7	Quick Noodles	quicknoodles.jpg	100	200	FBC2	Noodles are a type of food made from unleaven...
8	Szechuan Chilli Chicken	szechuanchicken.jpg	275	200	FBC2	Szechuan Chicken is a stir fry of crispy chicken t...
9	Margherita Pizza	margheritapizza.jpg	300	200	FBC3	Pizza margherita, as the Italians call it, is a simpl...
10	Lasagna	lasagna.jpg	150	200	FBC3	Lasagne are a type of pasta, possibly one of the ...
11	Stuffed Ravioli	stuffedravioli.jpg	180	200	FBC3	Ravioli Stuffed with Mozzarella, Basil and Walnu...
12	Taco	taco.jpg	200	200	FBC4	A taco is a traditional Mexican dish consisting of...
13	Burrito	burrito.jpg	100	200	FBC4	A burrito is a dish in Mexican and Tex-Mex cuisi...
14	Rava Idli	ravaidli.jpg	75	200	FBC1	Rava idli is a variation of the popular South Indi...
*	NULL	NULL	NULL	NULL	NULL	NULL

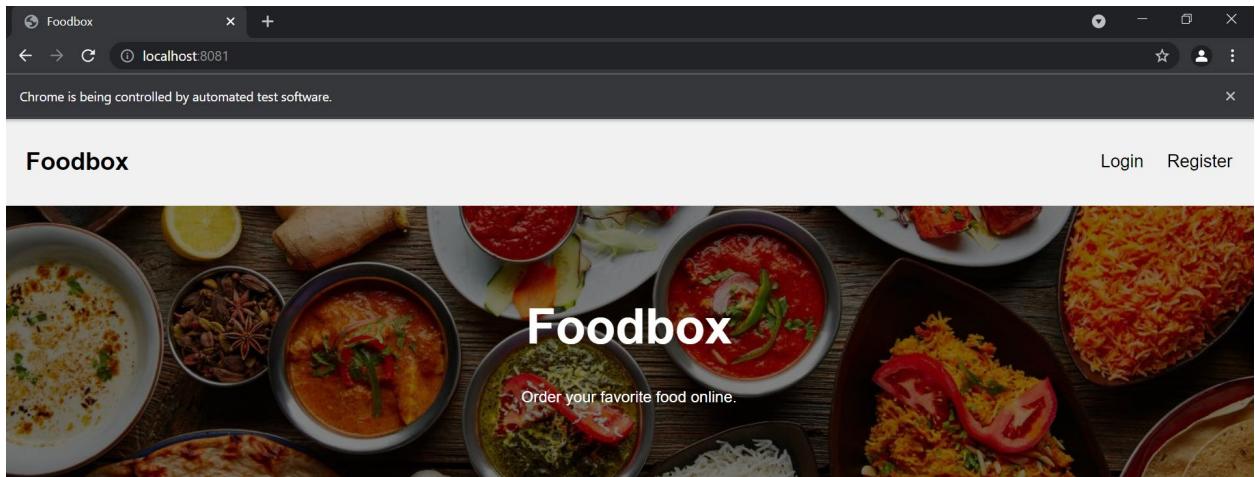
Sample Automation Tests

1. Selenium automation test to open the application in a browser and check if the title matches the expected title.

```
IndexTest.java ×
1 package com.foodbox.tests;
2
3*import org.openqa.selenium.WebDriver;
4
5 public class IndexTest {
6
7     public static void main(String[] args) {
8         System.setProperty("webdriver.chrome.driver",
9             "C://Simplilearn//foodbox.com//src//main//resources//chromedriver_win32//chromedriver.exe");
10        WebDriver driver = new ChromeDriver();
11
12        String baseUrl = "http://localhost:8081/";
13
14        String expectedTitle = "Foodbox";
15        String actualTitle = "";
16
17        // Launch Chrome and open the base URL
18        driver.get(baseUrl);
19
20        actualTitle = driver.getTitle();
21        // Compare actual title with expected title
22        if (actualTitle.contentEquals(expectedTitle)) {
23            System.out.println("Test passed. Title matched.");
24        } else {
25            System.out.println("Test did not succeed.");
26        }
27    }
28 }
29 }
```

OUTPUT:

Test passed. Title matched.

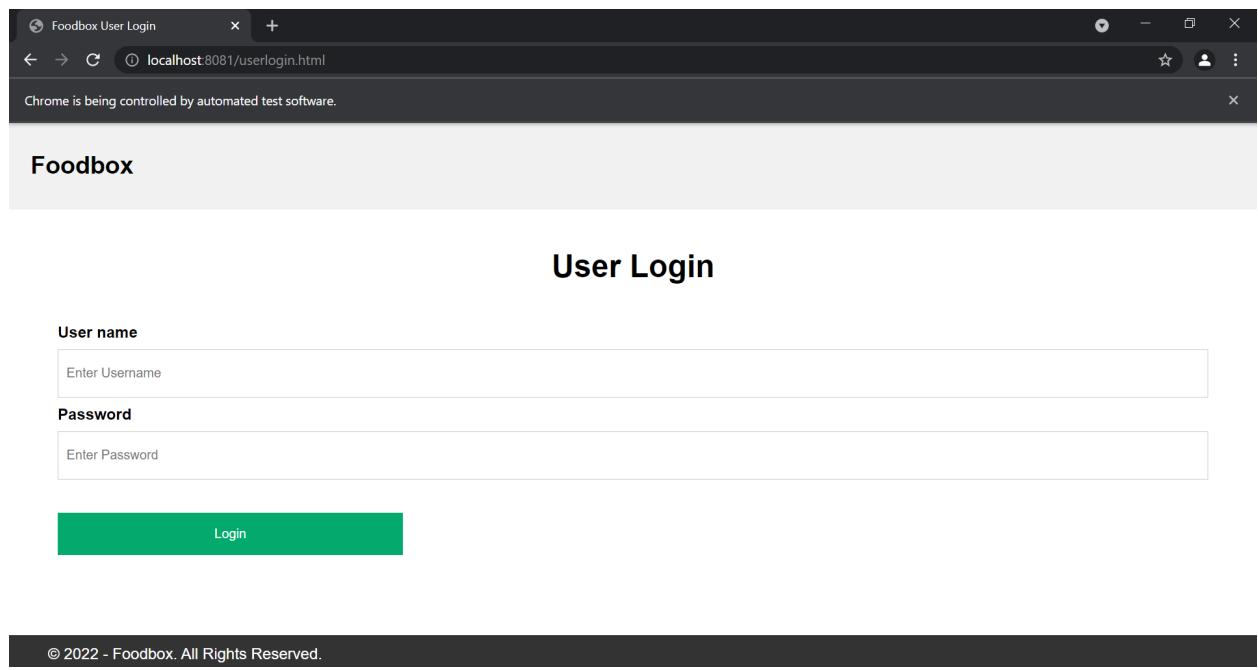


2. Selenium automation test to open the application login page in a browser, check if the user login button name matches the expected name and then navigate to the customer login page.

```
LoginTest.java ×
1 package com.foodbox.tests;
2
3 import org.openqa.selenium.By;
4
5 public class LoginTest {
6
7     public static void main(String[] args) {
8         System.setProperty("webdriver.chrome.driver",
9             "C://Simplilearn//foodbox.com//src//main//resources//chromedriver_win32//chromedriver.exe");
10        WebDriver driver = new ChromeDriver();
11
12        String baseUrl = "http://localhost:8081/login.html";
13
14        // Launch Chrome and open the base URL
15        driver.get(baseUrl);
16
17        //Locating elements
18        if(driver.findElement(By.id("userLoginButton")).getAttribute("name").contentEquals("userloginbutton")){
19            System.out.println("User login button name matches.");
20        }else{
21            System.out.println("User login button name does not match.");
22        }
23
24        String click = Keys.chord(Keys.ENTER);
25        driver.findElement(By.xpath("//*[@id=\"userLoginButton\"]")).sendKeys(click);
26        try {
27            Thread.sleep(1000);
28        }catch(InterruptedException e){
29            e.printStackTrace();
30        }
31    }
32}
33}
```

OUTPUT:

User login button name matches.



EC2 Instance

The screenshot shows the AWS CloudWatch Metrics interface for an EC2 instance. At the top, there's a header with the instance ID (i-07aa5495076c199e3), state (Running), instance type (t2.micro), and other details like 2/2 checks passed, no alarms, and region (ap-south-1a). Below the header, there's a large empty space for visualizing metrics.

Instance: i-07aa5495076c199e3 (FoodBox Application Server)

Details | Security | Networking | Storage | Status checks | Monitoring | Tags

Instance summary | [Info](#)

Instance ID	Public IPv4 address	Private IPv4 addresses
i-07aa5495076c199e3 (FoodBox Application Server)	35.154.167.65 open address	172.31.42.228
IPv6 address	Instance state	Public IPv4 DNS
-	Running	ec2-35-154-167-65.ap-south-1.compute.amazonaws.com open address
Hostname type	Private IP DNS name (IPv4 only)	Answer private resource DNS name
IP name: ip-172-31-42-228.ap-south-1.compute.internal	ip-172-31-42-228.ap-south-1.compute.internal	IPv4 (A)

The screenshot shows a terminal session on an EC2 instance. The user is logged in as ec2-user at ip-172-31-42-228. The session starts with the user being prompted for a password and then authenticating with a public key. It shows the last login information and the Amazon Linux 2 AMI logo.

```
ec2-user@ip-172-31-42-228:~$ Using username "ec2-user".
ec2-user@ip-172-31-42-228:~$ Authenticating with public key "imported-openssh-key"
Last login: Tue Jan 18 13:59:59 2022 from 103.43.114.129

      _\   _ )  Amazon Linux 2 AMI
     _\ \_ |__|
```

The user then runs a command to check for available packages:

```
https://aws.amazon.com/amazon-linux-2/
No packages needed for security; 2 packages available
Run "sudo yum update" to apply all updates.
[ec2-user@ip-172-31-42-228 ~]$
```

Jenkins CI/CD Pipeline Configuration

Jenkins Search 1 1 Nirosh Prakash log out

Dashboard > Foodbox >

General Source Code Management Build Triggers Build Environment Pre Steps Build Post Steps Build Settings

Description
CI/CD pipeline for continuous deployment and hosting the application on AWS EC2 instance.

[Plain text] Preview

Discard old builds ?
 GitHub project ?
Project url
`https://github.com/niroshprakash1995/Foodbox.git/`

This build requires lockable resources ?
 This project is parameterized ?
 Throttle builds ?
 Disable this project ?
 Execute concurrent builds if necessary ?

Save **Apply** **Advanced...**

Source Code Management Build Triggers Build Environment Pre Steps Build Post Steps Build Settings

Source Code Management

None ?
 Git ?
Repositories

Repository URL
`https://github.com/niroshprakash1995/Foodbox.git`

Credentials
`- none -` **Add** ?

Add Repository

Branches to build

Branch Specifier (blank for 'any') x ?
`*/master`

Save **Apply** **Advanced...** **Repository browser**

Dashboard > Foodbox >

Source Code Management

- General
- Source Code Management**
- Build Triggers
- Build Environment
- Pre Steps
- Build
- Post Steps
- Build Settings

Post-build Actions

Add Branch

Repository browser

(Auto)

Additional Behaviours

Add

Build Triggers

- Build whenever a SNAPSHOT dependency is built
- Schedule build when some upstream has no successful builds
- Trigger builds remotely (e.g., from scripts)
- Build after other projects are built
- Build periodically
- GitHub hook trigger for GITScm polling
- Poll SCM

Dashboard > Foodbox >

Build Environment

- General
- Source Code Management
- Build Triggers
- Build Environment**
- Pre Steps
- Build
- Post Steps
- Build Settings

Post-build Actions

Build Environment

- Delete workspace before build starts
- Advanced...
- Use secret text(s) or file(s)
- Abort the build if it's stuck
- Add timestamps to the Console Output
- Inspect build log for published Gradle build scans
- With Ant

Pre Steps

Execute shell

Command

```
fuser -n tcp -k 8081
```

See the [list of available environment variables](#)

Advanced...

Dashboard > Foodbox >

Build

- General
- Source Code Management
- Build Triggers
- Build Environment
- Pre Steps
- Build**
- Post Steps
- Build Settings

Post-build Actions

Build

Root POM

pom.xml

Goals and options

clean package -Dmaven.test.skip=true

Advanced...

Post Steps

Run only if build succeeds Run only if build succeeds or is unstable Run regardless of build result

Should the post-build steps run only for successful builds, etc.

Execute shell

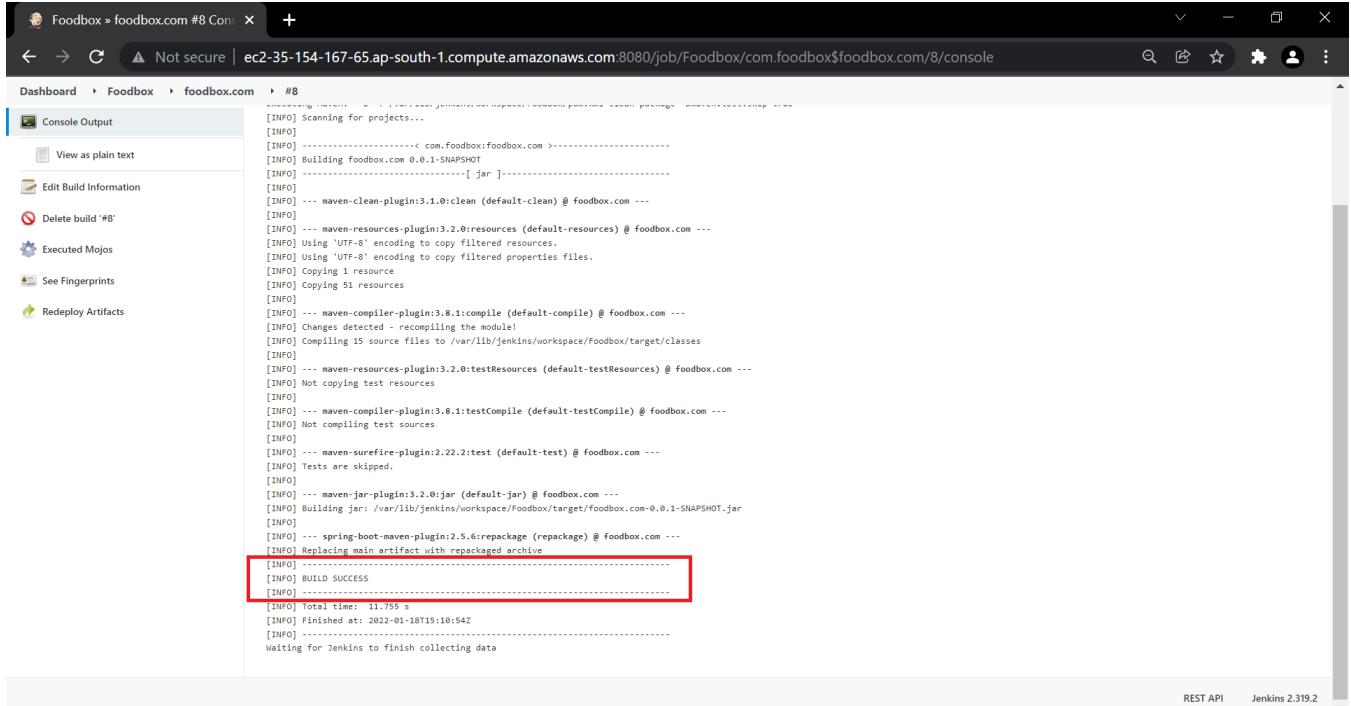
Command

```
BUILD_ID=do_not_kill_me
java -jar -Dserver.port=8081 /var/lib/jenkins/workspace/Foodbox/target/foodbox.com-0.0.1-SNAPSHOT.jar &
exit
```

See the [list of available environment variables](#)

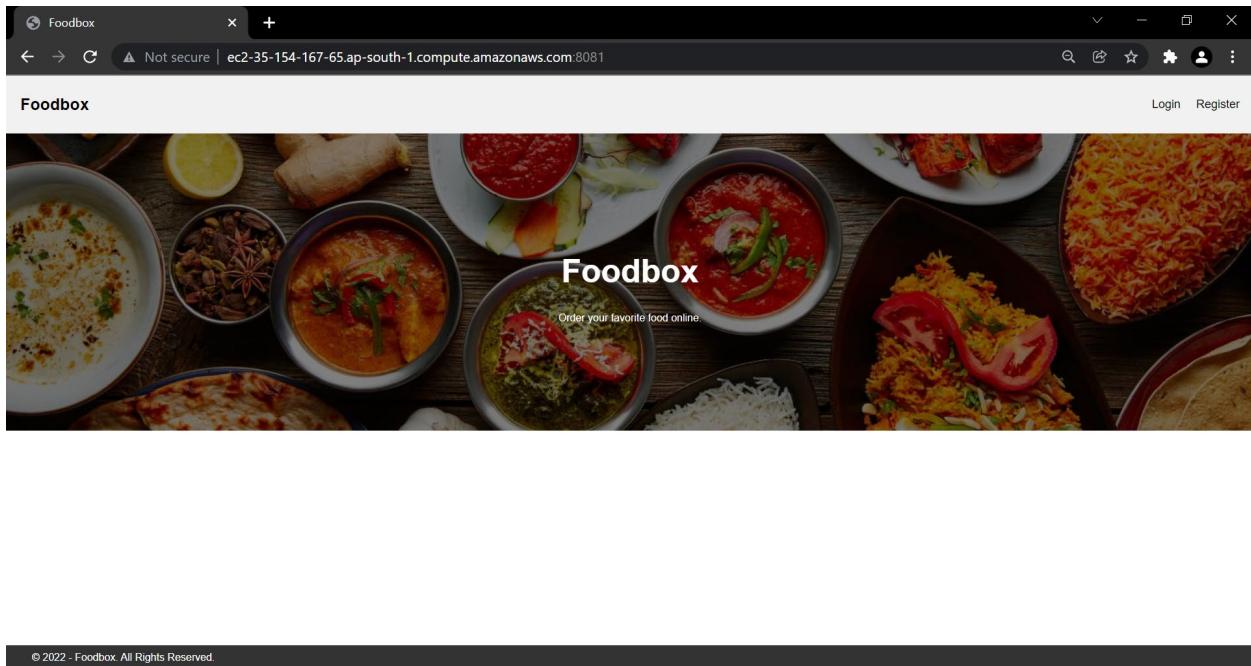
Save Apply Advanced...

Triggering Build on Jenkins



The screenshot shows the Jenkins console output for build #8 of the 'Foodbox' project. The output details the Maven build process, including cleaning, compiling, testing, and packaging steps. A red box highlights the 'Replacing main artifact with repackaged archive' and 'BUILD SUCCESS' messages at the end of the build log.

```
[INFO] Scanning for projects...
[INFO]
[INFO] -----> com.foodbox:foodbox.com >-----[jar]
[INFO] -----> [ jar ]
[INFO]
[INFO] --- maven-clean-plugin:3.1.0:clean (default-clean) @ foodbox.com ---
[INFO]
[INFO] --- maven-resources-plugin:3.2.0:resources (default-resources) @ foodbox.com ---
[INFO] Using 'UTF-8' encoding to copy filtered resources.
[INFO] Using 'UTF-8' encoding to copy filtered properties files.
[INFO] Copying 1 resource
[INFO] Copying 51 resources
[INFO]
[INFO] --- maven-compiler-plugin:3.8.1:compile (default-compile) @ foodbox.com ---
[INFO] Changes detected - recompiling the module!
[INFO] Compiling 15 source files to /var/lib/jenkins/workspace/Foodbox/target/classes
[INFO]
[INFO] --- maven-resources-plugin:3.2.0:testResources (default-testResources) @ foodbox.com ---
[INFO] Not copying test resources
[INFO]
[INFO] --- maven-compiler-plugin:3.8.1:testCompile (default-testCompile) @ foodbox.com ---
[INFO] Not compiling test sources
[INFO]
[INFO] --- maven-surefire-plugin:2.22.2:test (default-test) @ foodbox.com ---
[INFO] Tests are skipped.
[INFO]
[INFO] --- maven-jar-plugin:3.2.0:jar (default-jar) @ foodbox.com ---
[INFO] Building jar: /var/lib/jenkins/workspace/foodbox/target/foodbox.com-0.0.1-SNAPSHOT.jar
[INFO]
[INFO] --- spring-boot-maven-plugin:2.5.6:repackage (repackage) @ foodbox.com ---
[INFO] Replacing main artifact with repackaged archive
[INFO] -----
[INFO] BUILD SUCCESS
[INFO] -----
[INFO] Total time: 11.755 s
[INFO] Finished at: 2022-01-18T15:10:54Z
[INFO] -----
```



URLs

Git repository: <https://github.com/niroshprakash1995/Foodbox.git>

Application URL: <http://ec2-35-154-167-65.ap-south-1.compute.amazonaws.com:8081/>

Conclusion

As per the requirement a dynamic and responsive food delivery application for ordering food items of different cuisines from Foodbox is completed. The application can be accessed by the end users.