**Capstone Project**

• Project: Foodbox

• Developer: Poojitha M

**Project and Developer Details**

This project aims to design and develop an E-commerce website that lets people shop food items of different cuisines at affordable prices and deliver the products to their addresses. It was developed using Angular and Spring boot It was created as the Capstone Project for the Full Stack Java Developer course.

Sprints and Tasks.

**Product Backlog**

**Programming:**

1. Create database and tables.

2. Add some rows and metadata to the tables

3. Initialize a Spring Boot project for the Back-End side.

4. Create REST APIs with spring Data JPA Repositories.

5. Create desired DAO methods for the Back-End side

6. Create a new Angular project for the Front-End side.

7. Create login and register pages and components.

8. Add cache to the login user

9. Logout user and remove cache

10. Show all products to the home page.

11. Show all products as cards.

12. Create a product details component.

13. Search a product by a category.

14. Search a product by a keyword.

15. Add products pages

16. Filter by page number

17. Sort product by different options

18. Add products to the cart.

19. Update total price in the cart status.

20. Show the payment gate and review the list

21. Add and remove products from the review list

22. Update the total price in the payment gate

23. Create the admin view

24. Update/Remove a product for the admin

25. Add a new product for the admin

26. Update the CSS design

27. Add bootstrap and font awesome to the components. 28. Debug and test the project.

**Deployment:**

29. Upload project to GitHub.

30. Create a t3.mediuminstance for master.

31. Create a t3.micro instance for slave. 2

32. Connect the two instance to the system

33. Create a Pipeline project on Jenkins.

34. Create a Jenkins file.

35. Generate a SSH key for GitHub.

36. Build the pipeline project.

37. Deploy the project.

Technologies and tools Used

• Angular: used in the front-end side to build modern single-page applications

• Spring Boot: used in the back-end side to create the REST API and retrieve data from a database.

• AWS EC2 instance : to use the instances as a VM and deploy the application

• AWSRDS: to upload the database online.

• Jenkins: to build the project from GitHub.

• GitHub: to upload the source code of the project.

• MobaX term: to the instance from Windows OS.

• Selenium: for automation and testing.

• Apache: to use it as a web server.

• HTML/CSS: to create and format the content of the pages.

• Bootstrap: to use some CSS and JavaScript designs.

• Maven: to manage the project.

• Visual Studio Code: to write and run the Angular code.

• IntelliJ: to write and run the Spring Boot code.

• MySQL: to use it as database management system.

• phpMyAdmin: to administrate and manage the database manually.