



ULAB

UNIVERSITY OF LIBERAL ARTS
BANGLADESH

CSE 499

Internship Report on

OfferBuzz: Development of a platform where all type of offers can be
seen and availed

At eCarnivalBD

Submitted By

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October 2021

OfferBuzz: Development of a platform where all type of offers can be
seen and availed

Fahmeda Gulzar

Internship report submitted in partial fulfillment of the requirements for
the degree of
Bachelor of Science in Computer Science and Engineering

UNIVERSITY OF LIBERAL ARTS BANGLADESH

Dhaka, Bangladesh

October, 2021

DECLARATION

I do hereby declare that this internship report entitled “OfferBuzz” has been prepared by me under the guidance of Dr. Abul Kalam Al-Azad for the partial fulfillment of CSE program from the Department of Computer Science & Engineering (CSE), University of Liberal Arts Bangladesh (ULAB). I also assure that this report is original in nature and has not been submitted elsewhere for any other purpose.

Signature

Fahmeda Gulzar

ID: 153014016

Department of Computer Science & Engineering

Date: 10 October, 2021

LETTER OF TRANSMITTAL

Date:

Dr. Abul Kalam Al-Azad

Associate Professor

Department of Computer Science & Engineering

University of Liberal Arts Bangladesh, Dhaka.

Subject: Submission of internship report.

Dear Sir,

I am highly pleased to submit my Internship Report entitled “OfferBuzz” that fulfills partial requirement of Computer Science & Engineering (CSE) degree. It is very much essential for a student of engineering student to undergo a project.

I am assigned to eCarnivalBD in Khilgaon, Dhaka 1219 office as a backend developer during my internship program. The experience I have gathered during this period will remain as a valuable asset of immense useful in my life. In preparing this report I tried my level best to accumulate relevant information from all the available sources and follow the guidelines you suggest and I hope it will satisfy my course requirement for CSE program. Thank you for your best support.

So, therefore I shall be highly encouraged if you are kind to receive this Internship Report.

Sincerely Yours,

.....

Fahmeda Gulzar

ID: 153014016

Department of Computer Science & Engineering

University of Liberal Arts Bangladesh

ACKNOWLEDGEMENT

First and foremost, praises and thanks to the Almighty, Allah, for his graces and blessings throughout the period of the Internship, I successfully completed my responsibilities.

I would like show my heartiest gratitude to my supervisor, Dr. Abul Kalam Al Azad, PhD, Associate Professor, Department of Computer Science & Engineering, University of Liberal Arts Bangladesh for providing me the invaluable guidance throughout this journey. His wisdom, vision, experience, guidance, and suggestions is really remarkable and incomparable. I am privileged to have him as my supervisor.

I would also like thanks eCarnivalBD Limited, who has extended their wholehearted co-operation for making my working time so easy by their friendly behavior and letting a new comer learn new things, the entire team with whom I have started my internship period has helped me in every critical situation, Honestly I have learnt a lot within this short time.

Last but not the least, I am extremely grateful to my parents for their humongous support and selfless love. I also like to express my gratitude to my elder brother who always stood beside me and my sister for giving me motivation.

Finally, my respect and appreciation to the people who have supported me to work properly.

Fahmeda Gulzar

ABSTRACT

We live in world where internet is ruling every possible sectors. And online shopping system is now has become very common among us. Nowadays businesses are following new kind of strategies to grow their business larger, like they are giving eye catchy offers to the customers. So eCarnivalBD Limited has thought to use this strategy. So they have come with an idea to develop a platform where a customer can see every possible offers for any kind trendy business. So gathering the offer in one platform is not their only purpose, customers can also avail this offer from the platform. This development is using microservice architecture and the project is going to be live in November.

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CHAPTER 1

INTRODUCTION

1.1 Introduction:

Internship opens up new doors to a student who can get a chance to enhance their theoretical knowledge with the competitive and real job market environment. It has become the center connection for those who want to enter to the real working environment within the completion of their degree. Moreover, if the internship program has value like credit courses and the students have to return to the regular curriculum after completing it, the skill and knowledge they have gained during this time span will help them to get a sound academic result with a job life experience. University of Liberal Arts Bangladesh gives their students this glorious opportunity having an internship for their bachelor program. I am fortunate enough to study in ULAB who allowed me to work in eCarnivalBD Limited to complete and undergo this experience of internship. Through this whole period I got to learn new things that was different from our curriculum activities.

I officially joined eCarnivalBD Limited as an intern on 2nd July, 2021, for the pandemic situation they allowed me to work remotely for a period of time. The expectations were high and now almost nearing the end of my internship I have to

admit that one of the wonderful journey I have experienced. I was blessed to get the chance to work with some skillful amazing people in eCarnivalBD Limited. This period provided me the opportunity to broaden my knowledge, find out my strengths and weaknesses that would be an advantage for me in the future to sharp my career.

I worked on one of their in house project called OfferBuzz was part of their Software Development team. The journey wasn't so easy. Many hindrance occurred, learning how to handle new technologies, new framework were really challenging. And after overcoming each challenges I had realized that I have a potential to fight back and cop up the pace with others. In this short time I have gather new skills, these are valuable for me and I am feeling lucky that in this competitive world these skills and experience will be my shield.

1.2 Motivation:

The willingness to contribute and at the same time give the same amount of effort to gain new skill sets from particular tasks arise a high possibility to reach the goals. It has a great impact on the performance of the organization. The purpose of any organization is to achieve a milestone with the integration of their employees. I selected the eCarnivalBD for the friendly environment and behavior along with the

intensity of their works. Including an intern in their in house project which is using the trendiest architecture is really rare nowadays. To develop practical skill and knowing a whole new architecture, the process a team follows during an internship is really wholesome for me. A 12 weeks long program only to relate theoretical concepts with the competitive job world is particular exposure. I was assigned to their software development team as a backend developer intern. I related myself to the project concept and process nicely. It fascinated me that the other companies where certainly work on monolithic architecture, and here the organization is too trendy by following the microservice.

1.3 Internship Objectives:

This report on has been composed as a requirement of the internship program of the degree Bachelor of Science in Computer Science and Engineering. This report will enhance the knowledge and make an example for the upcoming batches regarding the real world workplace environment. Using this example they will have an idea how to make themselves ready for the competitive situations.

The primary purpose of the internship is to develop an understanding of the workplace relationship, working along with professionals, meeting the every day's

task in the workplace. It is an application of all the studies, practical and theoretical knowledge that one has gathered so far. Apart from the general objectives, the report is structured to meet some specific targets, and they are highlighted below:

- The introduction of the organization
- Leading products of the organization
- Detail about the team I worked with
- An elaborated representation of my responsibilities
- As an intern my reflections and achievements
- To know the architecture followed by the company
- Idea about the problems faced in the software industry
- To know the solutions for fixing the problems
- To know a whole new framework for the project
- To know the programming style and conventions
- Idea about the development cycle and models
- To know how to work with documentation and customization
- Knowledge about software maintenance

1.4 Introduction to the Company:

This company have different perception but a general goal is to gather passionate people under a roof. Their main focus is to deliver some excellent work to the local and global clients. Some detail is given below:

Name of the company: eCarnivalBD Limited
Street Address: 7 th Floor, 224/B Khilgaon, Taltola Rd, Dhaka 1219
City: Dhaka
Contact Number: +88 09678-800405
E-mail: info@ecarnivalbd.com
Chairman: Muntasir Alam Chowdhury
Legal Status: Limited Company
Website: https://ecarnivalbd.com
Year of establishment: 2015
Type of Services: Variety of creative services like development of website, web app, mobile apps, animation effects, game development, web designing, Facebook content design, Book cover design, Billboard design etc.

Table no 1.1: Company detail

1.5 Report Layout:

Chapter 1: Introduction

This chapter will content following section with introductory words about the report.

1.1 Introduction: This section is presenting the context of the internship report.

1.2 Motivation: In this section as an intern how got motivated to choose internship program and worked in competitive is composed.

1.3 Internship Objectives: Particular goals are drawn which are going to discuss in this report.

1.4 Introduction to the Company: A short detail of the company where I am doing my internship is composed in this section.

1.5 Report Layout: A very short detail of the context of each section is given in this section.

Chapter 2: Organization

This chapter will include introduction of the organization where I have completed my internship, their target group and productions with market situation, a SWOT analyzing and their organizational structure.

2.1 Introduction: A detail description about the organization is written in this section

2.2 Product and Market Situation: Types of product the company is offering with some example of their product and the market situation.

2.3 Target Group: Organization's target group has been discussed in this section.

2.4 SWOT Analysis: Strength, Weakness, Opportunity and threats of the organization has been discussed.

2.5 Organizational Structure: This section will give a reflection of their following structure.

Chapter 3: Tasks, Projects and Activities

This chapter will include the details of the tasks and project I did during the internship.

3.1 Daily Task and Activities: List of daily task and how they were arranged is composed in this section.

3.2 Events and Activities: All the events and activities are written in this section in detail

3.3 Project Task and Activities: OfferBuzz project detail is written with all the information here.

3.4 Challenges: During the internship the challenges and difficulties I faced is in this section.

Chapter 4: Competencies and Smart Plan

This chapter has description the skills and competencies I have earned so far and the Smart plan for next one month with the reflection of my internship journey.

4.1 Competencies Earned: This section has the skill set which I learnt from the internship program

4.2 Smart Plan: Planning for the next one month as a backend developer and web developer

4.3 Reflections: How my internship program went and what did I do with the professional employees.

Chapter 5: Conclusion and Future Career

This chapter composed with some last words about this program and what would be my future career.

5.1 Discussion and Conclusion: In this section short conclusion has been discussed.

5.2 Scope for Further Career: This section presents possible scope for future career.

References

Appendices

Appendix A: Internship Reflection

Appendix B: Company Detail

CHAPTER 2

ORGANIZATION

2.1 Introduction:

The company I have selected to work with for my internship program is eCarnivalBD Limited. It has established in 2015. They have excellent talents as their working power. The chairman of the company is Muntasir Alam Chowdhury. With believe that nothing is impossible they are dealing with local and global clients. A dedicated team to develop websites, web app, mobile app as a brand new product in this tech world by working day and night. These are not all, they also work on other sectors like game development, UI/UX designing, interior designing etc. Focus is to bring our country Bangladesh in front of the other countries by showing the skills and creativeness and also inspire our new generation to adopt the new frontier.



Figure no 2.1: Logo of the organization

Back in 2015, eCarnivalBD Limited started their journey with eSports and now they are branching out to new areas. These areas involve modern technology, business and arts. They are working beyond their expectations with passion.

This company has always been service-based, so the missions and vision all are centered to these. The services they provide to the client is basically based on IT solutions, designing and management related by creating landmark through the excellent work with the full satisfaction of their client. A company with multidimensional services for the client who are not only from our country but globally with great demand is automatically meeting their goals.

2.2 Product and Market Situation:

A technology based company like eCarnivalBD Limited is sorted when it comes to the product they are selling to their customer. Basically this organization has set up three basic section for their product criteria. Those three basic section are based on the followings:

- IT solutions
- Designing interior and exterior
- Management in events

But the main focus is to create benchmark by delivering satisfactory level product to client.

They know that a website is the main presentation of a company, it is main outlook which helps to make an impression about a company. So they mainly follow creative ideas to make sure all the deals for making a website and numerous trendy tools to be utilized in these work.

Bridging west is one of the real estate company in Melbourne, Australia. The organization has shown their creativity by developing their website.

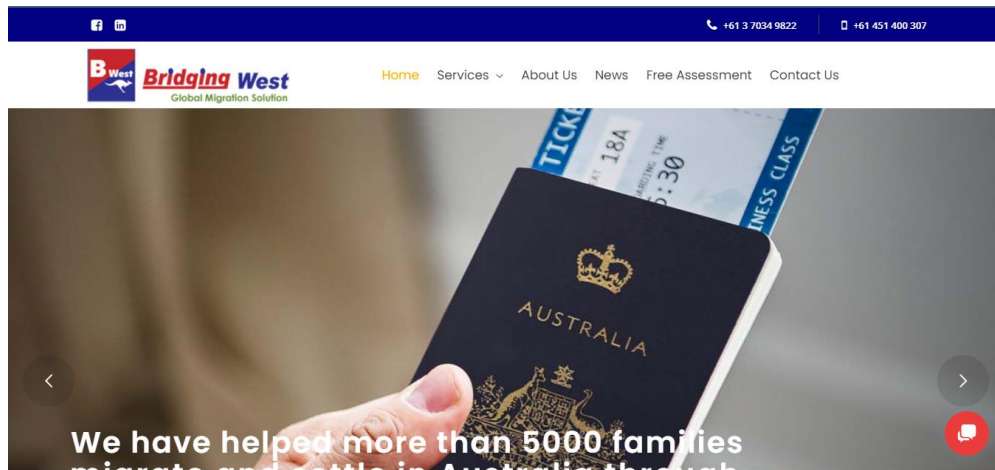


Figure no 2.2: The landing page of Bridging west

Azad express is one of the E-commerce sites in our country, makes our life easier by sending the products in our doorsteps. The eCarnivalBD developed their website with proficiency and accuracy.

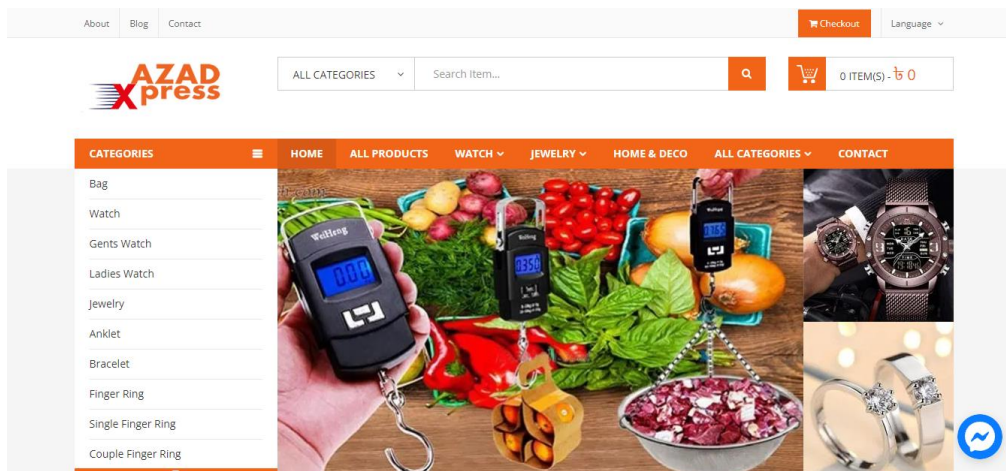


Figure no 2.3: Website of the AZAD express

Animation effect makes a tech product very much attracted to the user's attention with right click ability of a content. With animation the UX improves its simple outlook.

When the whole world is busy with playing online and offline games the organization also stepped into this community by developing game for android, IOS and desktop games. These are mostly fun games 2D-3D, casual game to story-based games, also VR games. One of their sensation, and upcoming work is 3D game named “Zero theke Hero” a game based on our Bangla cinema which is really going to be an interesting game.

Designing is one of most eye catchy service of them. A well supported designs which well operative with the codes and the visible contents like fonts, colors, images arrangement are also provided by the experienced designer. Besides web designing they also offers the followings:

- Facebook content design
- Book cover design
- Biilboard design etc.

The organization has done the designing of book cover for Asiatic Society.



Figure no 2.4: Book cover for “ASIATIC SOCIETY”

There many more designed product which they have created and still these works are on live. They have an excellent team of architectures who helps people to arrange their interior. Their designing skills are up to the mark and it plays an undeniable job.

As they started their journey with eSports, the DotA 2 championship made huge impact on young generation that was real success as a new comer.



Figure no 2.5: Banner of eSports carnival



Figure no 2.6: Banner of eSports carnival

The organization is in demand because of their review from foreign clients. Employees work really hard to get the best result.

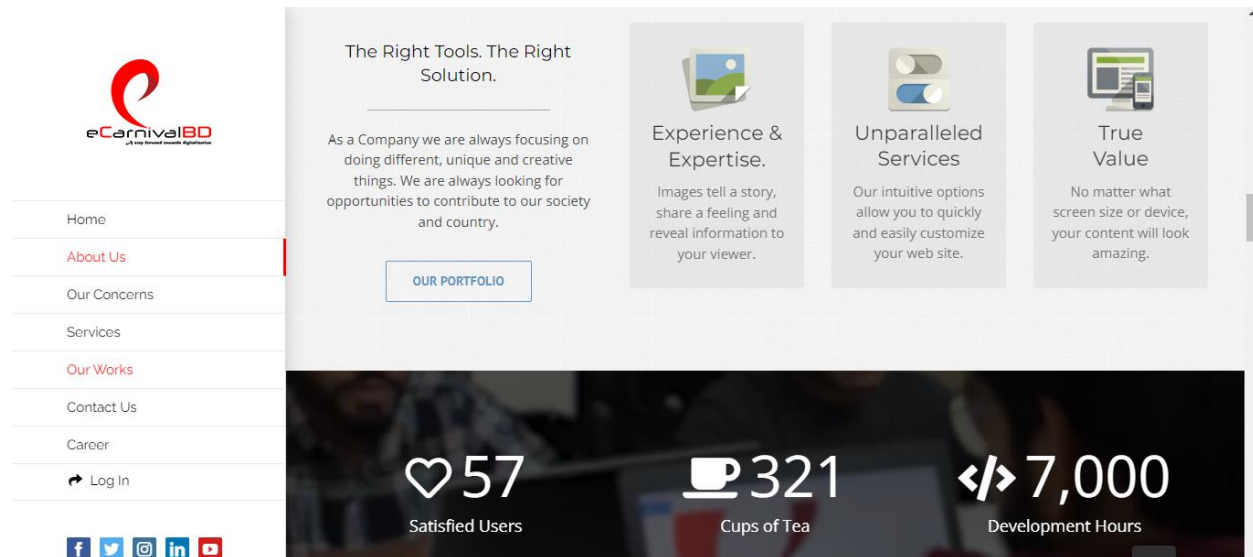


Figure no 2.7: Highlighted satisfied user

The number of satisfied user is presenting the market situation of the organization which couldn't be achieved without the developers of the organization.

2.3 Target Group:

Getting digitalized using the latest technology is the main focus in the expansion of an IT company. So every company has target to make themselves visible in developing sector following the user friendly architecture and methodology. Therefore eCarnivalBD Limited has set up their plan according to this. They have

targeted the local and global clients with a huge billboard which has the latest frameworks for the developing sector. The potentiality in them is enough for satisfying their clients. So many international clients has given wonderful reviews about the fact that they have clear communication context with full understanding of the requirements.

2.4 SWOT Analysis:

Before starting the analysis one should know what's a SWOT Analysis and what does it mean. SWOT stands for strengths, weaknesses, opportunities and threats. This is a framework which used to estimate an organization's competitive position and develop strategic plans. It is designed to assess the organization by using their free realistic data. So in this report I am using the four matrix strengths, weaknesses opportunities and threats to assess the aspect of the objective. Here's a analysis from my side.

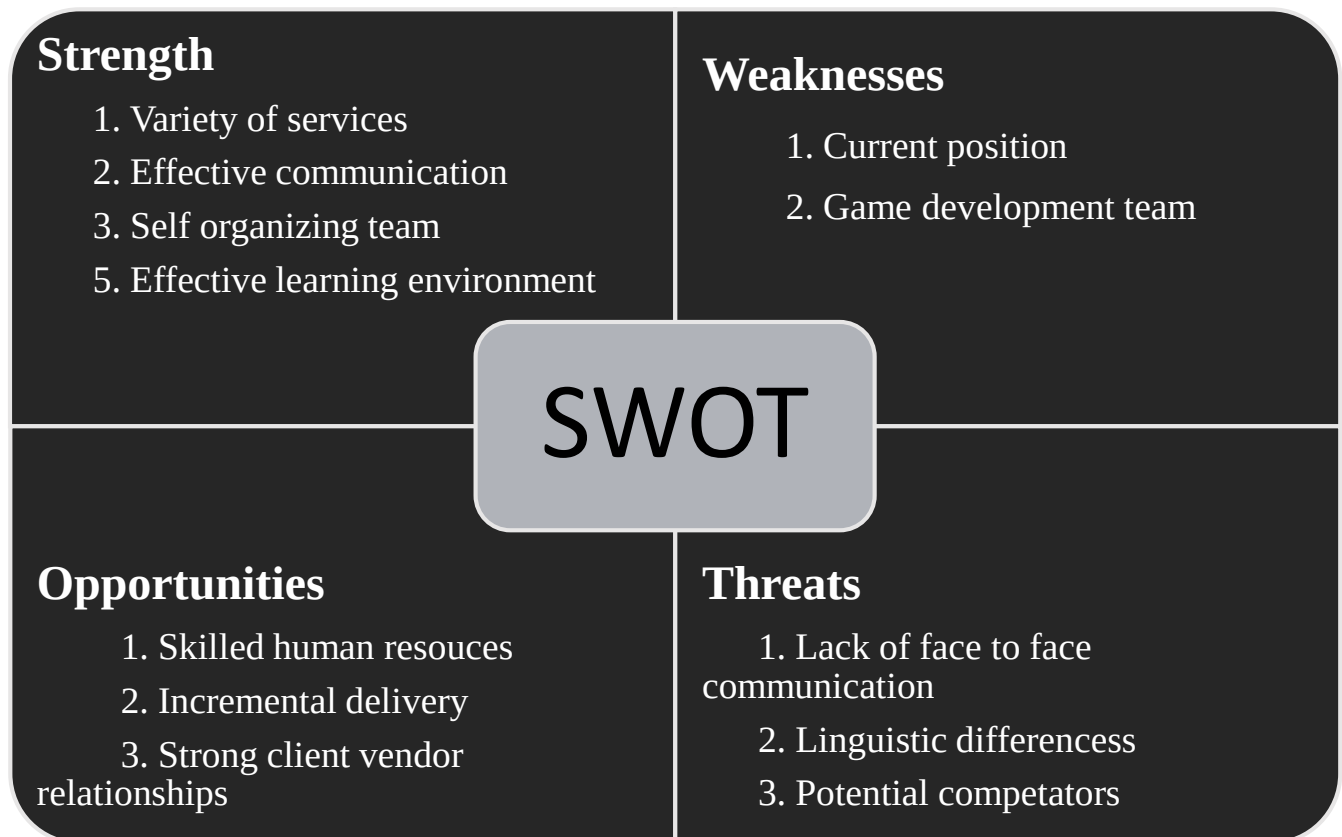


Figure no 2.8: SWOT analyzing of eCarnivalBD Limited

Strength of the organization is they have variety of services with different aspects. They are attracting the clients with these trendy service and also their communication method is effective that they don't get any problems to contact with the global clients. They have self-organized teams divided into small numbers to work couple of projects concurrently. The environment they have set up for the beginners are really effective to learn new things.

But like every company there are some existence of weaknesses. So far I have seen that the current position of the organization is a weakness and also they have wing team for game development which is partially not their own team.

The skillful human resources are exposure of the opportunities for the organization with the sense of deadlines and deliver the service within the time with testing will bring up new chances surely. For this their client vendor relationship is getting stronger.

Last but not the least threats are always there when it comes to a business. Their potential competitors are a big threat as usual. But with this lack of face to face communication special because of this pandemic and also for the global projects is threatening. There's linguistic difference in the international market, as they work with the international language but sometimes some global clients faces problems to communicate or make understand their vision for a project.

SWOT analysis is important for every organization because it gives virtual presentation about their own abilities, highlights the weaknesses so that they work on it, also a reflection from outsider perspective.

2.5 Organizational Structure:

The organization's well defined structure can lead a company to a good position. The eCarnivalBD Limited follows centralized mechanistic product based divisional structure. Where all the other companies are following decentralized matrix structure, eCarnivalBD decided to stick with the comprised, smaller functional

structure, they think it is ideal for their company because of the multiple services they provide and it helps to short enough in service development. It allows their business to go to the software market with trendy and new offerings fast.

Here's management positions of the organization,

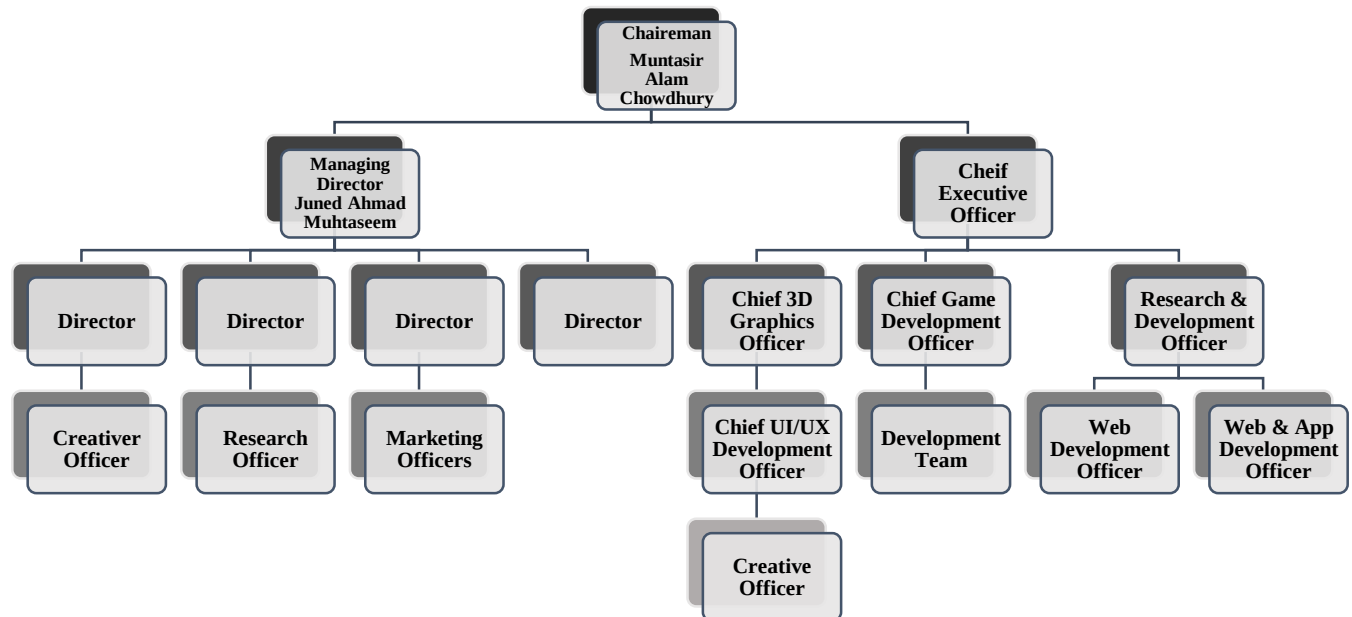


Figure no 2.9: Position of management of eCarnivalBD

Product based structural orientation is given below:

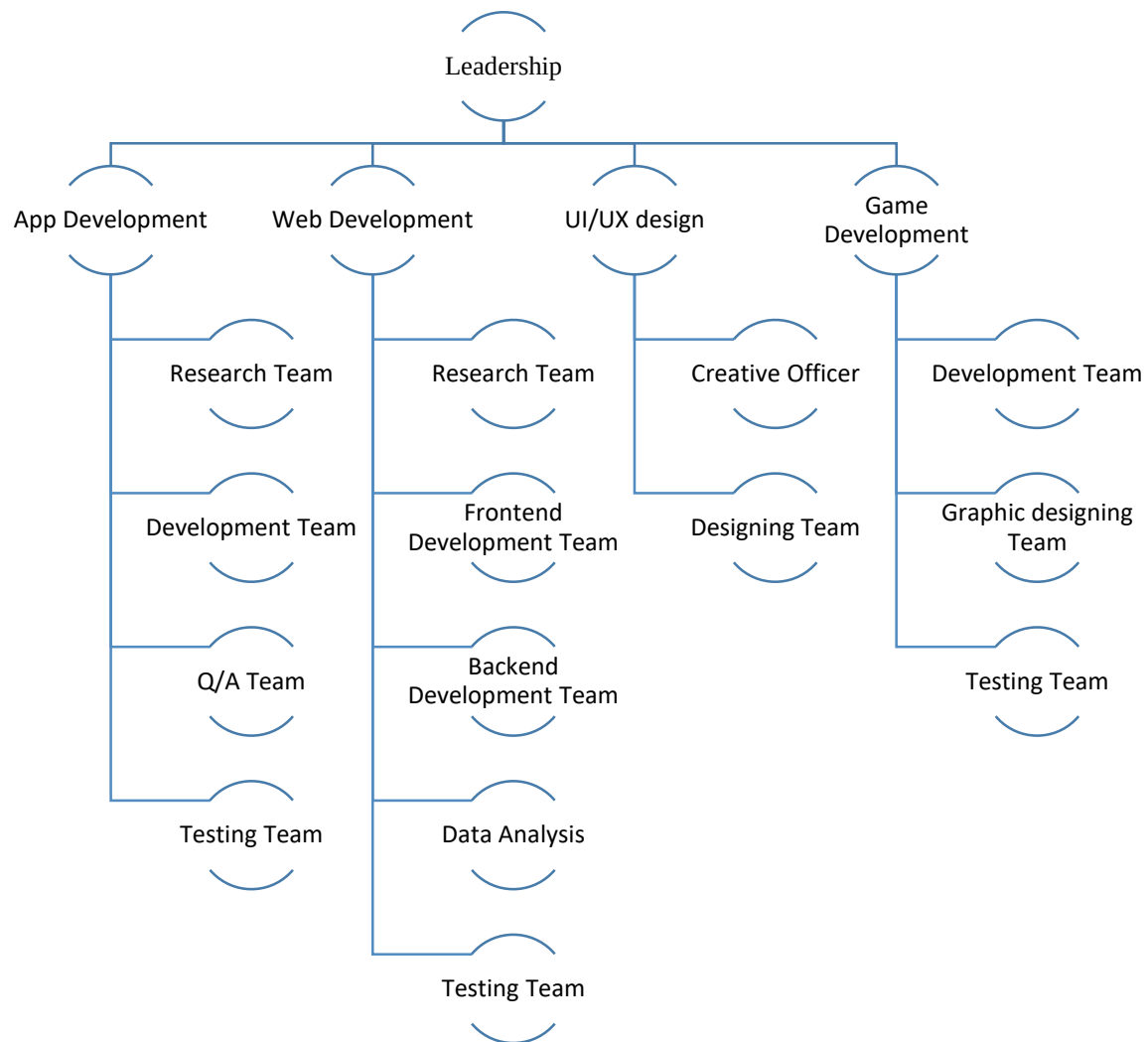


Figure 2.10: Centralized mechanistic product based divisional structure.

Though it's an ideal structure but there's risk of difficulty level scaling under a product based divisional structure also can end up with similar resources but eCarnivalBD Limited is making sure to stop occurring these problems.

CHAPTER 3

TASKS, PROJECTS AND ACTIVITIES

3.1 Daily Task and Activities:

As I have joined to the organization for developing backend services for one of their in house project. So my main task was to sit back and start coding according to the diagrams.

Before discussing about the daily task, timeline should be discussed. Which is given below:

PROJECT NAME						
OfferBuzz						
AT RISK	TASK NAME	START	FINISH	DURATION (DAYS)	STATUS	COMMENTS
☐	Learning Period	7/1/21	7/28/21	27	Complete	demo application is completed
☐	Title Defense	8/5/21	8/5/21	0	Complete	Done
☐	Requirement Analysis	7/30/21	8/1/21	2	Complete	Listing is done and accepted by the tech master
☐	Planning	8/2/21	8/6/21	4	Complete	Team planning is done, requirements are written on backlog
	Design and Deployment	8/7/21	9/29/21	53	Complete	
☐	Food Service & testing	8/7/21	8/19/21	12	Complete	Attributes are searchable
☐	Food Offer Service & testing	8/21/21	9/2/21	12	Complete	Relational Database is working
☐	Food Order Service & testing	9/4/21	9/14/21	10	Complete	Done
☐	Food Coupon Service & testing	9/17/21	9/23/21	6	Complete	Done
☐	Food Reservation Service & testing	9/24/21	9/29/21	5	Complete	Done before the time
☐	Report Writing	9/30/21	10/5/21	5	In Progress	In progress
☐	Final Defense	10/7/21	10/7/21	0	Not Started	At 7th October
☐	Report Submission	10/10/21	10/10/21	0	Not Started	within 10th October

Figure no 3.1: Timeline of the internship period

In the figure 3.1 the timeline is showing the dates of each activities which have to complete within the time. And each service has several sections that was done as daily task in this internship period.

Service Name	Sections of the service	Task name
Food Service	Food	✓ Making the entity ,controller, repository, service ✓ API testing ✓ Develop the relational database ✓ Push code at github repository
	Food Additional	✓ Making the entity ,controller, repository, service ✓ API testing ✓ Develop the relational database ✓ Push code at github repository
	Food Additional Item	✓ Making the entity ,controller, repository, service ✓ API testing ✓ Develop the relational database ✓ Push code at github repository

Table no 3.1: Example of daily tasks

I also attended the team meeting on time, though I was working remotely but for the planning phase the tech master requested scrum team to be present physically at office. The office policy is to be present at sharp 9 in discord group, count yourself present whenever any team member needs any help.

3.2 Events and Activities:

Since I have joined the organization as an intern all the works and activities were all set. The company uses scrum methodology for every projects they do. So before talking about my daily tasks some detail about the methodology is given below:

Scrum Methodology:

It is an agile development methodology used for the development of software. This methodology is really easy to adopt, faster and very effective in development process. The structure always sticks to the purpose of delivering accurate product to the clients. Scrum methodology has a Scrum master who control the scrums and foster an environment where basically a product owner composes a work into a backlog and the scrum team turns the work selection into an increasing value during a sprint and the scrum team, stakeholders check the outcome and modify for the next one and these go on.

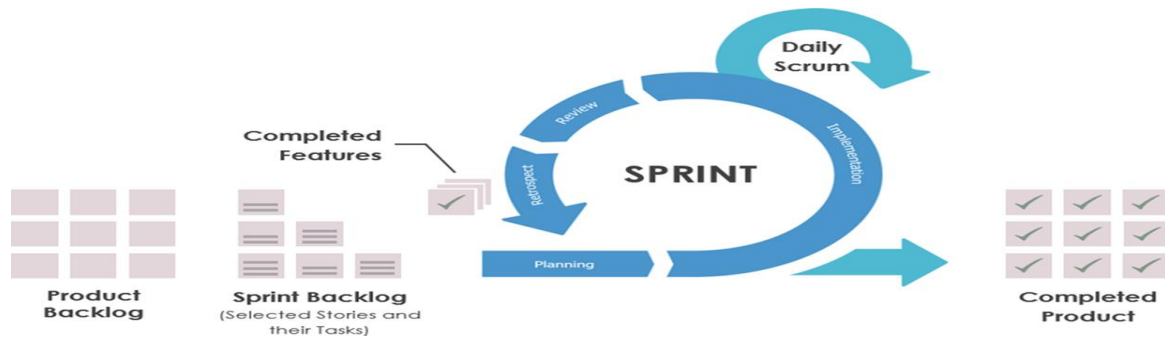


Figure 3.2: Scrum methodology

My each and activity was tracked in Trello. Trello is a platform where we can organize our project, working process, detailings, and activities into boards. One can tell by seeing the boards that what has done so far, and what is next we need to do with notes addressing the exact words related to the task.

Here the example of how the scrum methodology was designed for me using trello.



Figure 3.3: Scrum methodology in trello

And the activities were composed in each sprint. And here's the example of the sprints:

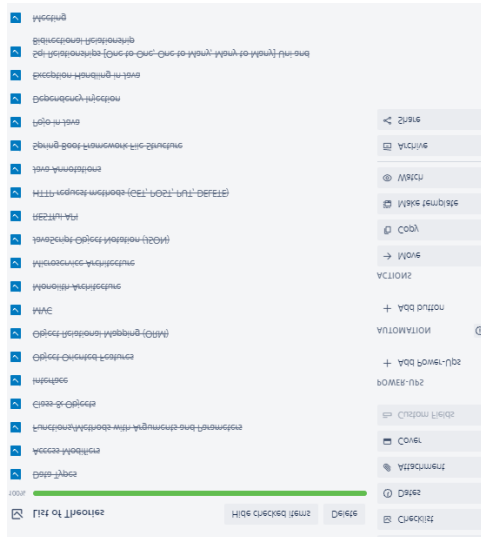


Figure 3.4: Sprint for the theory revision

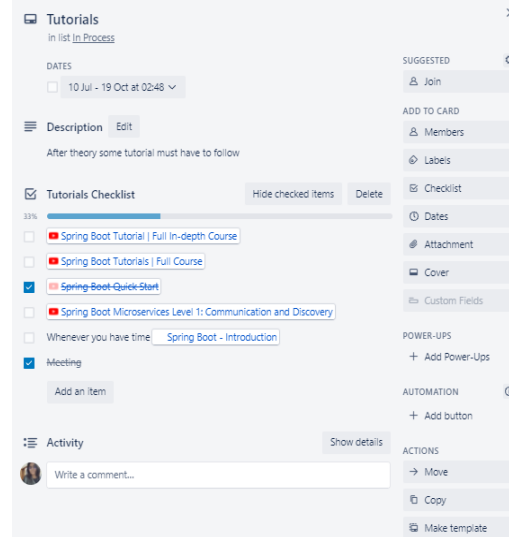


Figure 3.5: Sprint for the tutorials

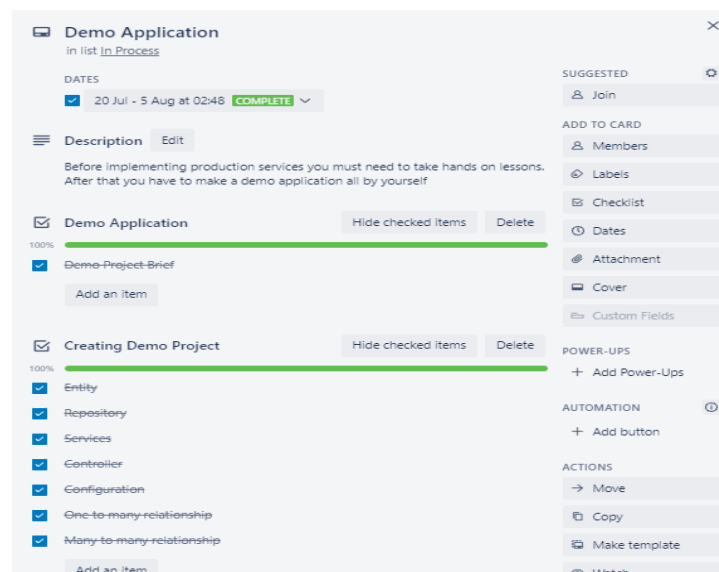


Figure 3.6: Sprint for demo application

Though the theory revision and learning period took quite time but the other sprints were quick as summer wind.



Figure 3.7: Sprint of Food Service

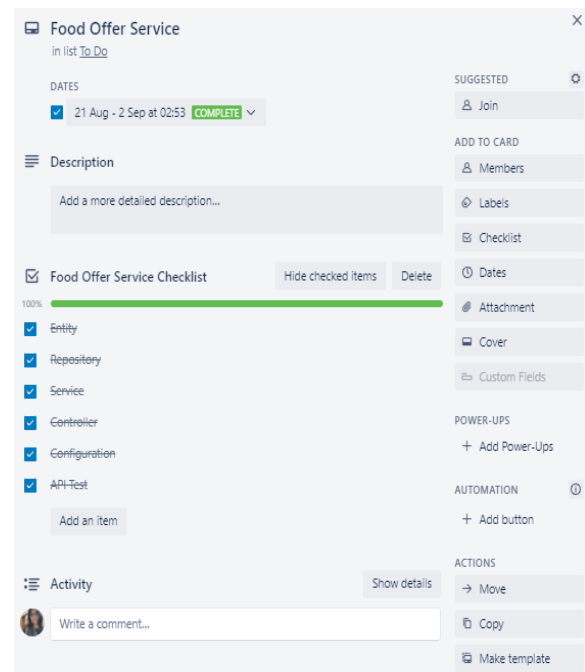


Figure 3.8: Sprint of Food Offer Service

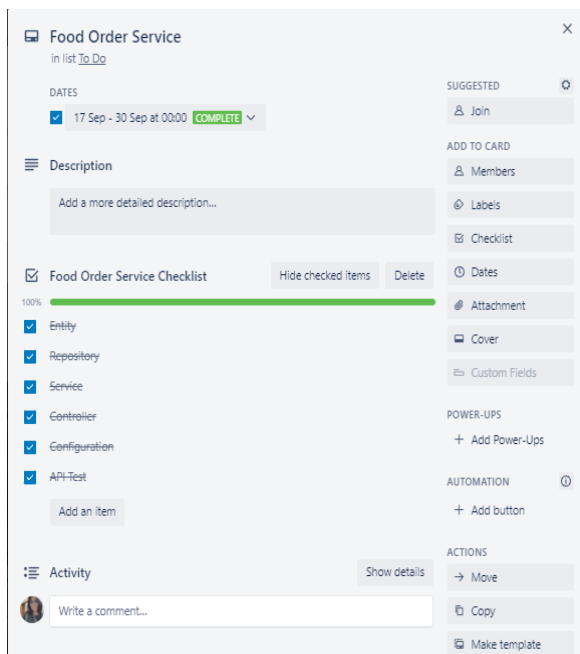


Figure 3.9: Sprint of Food Order Service

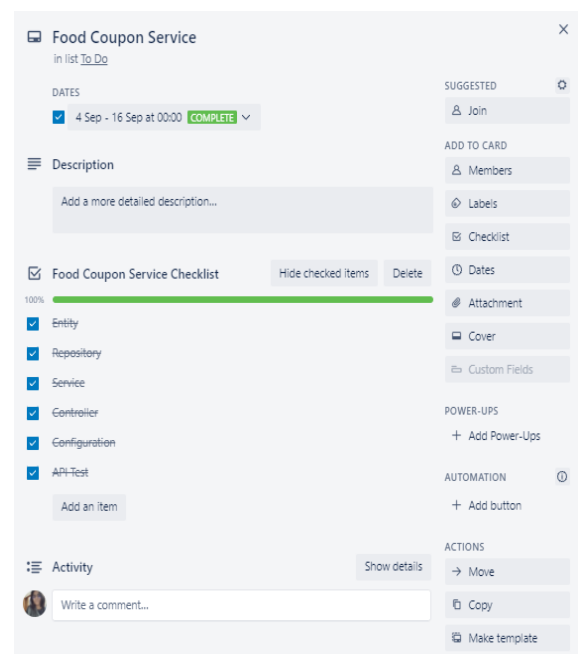


Figure 3.10: Food Coupon Service

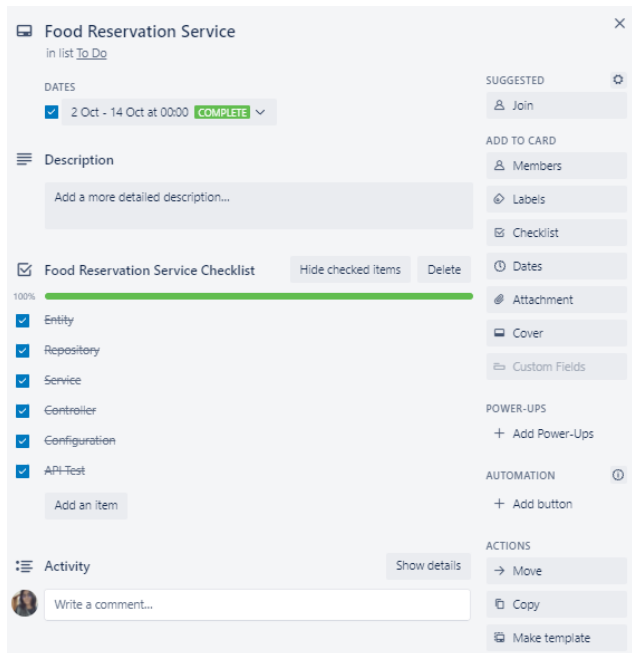


Figure 3.11: Sprint of Food Reservation

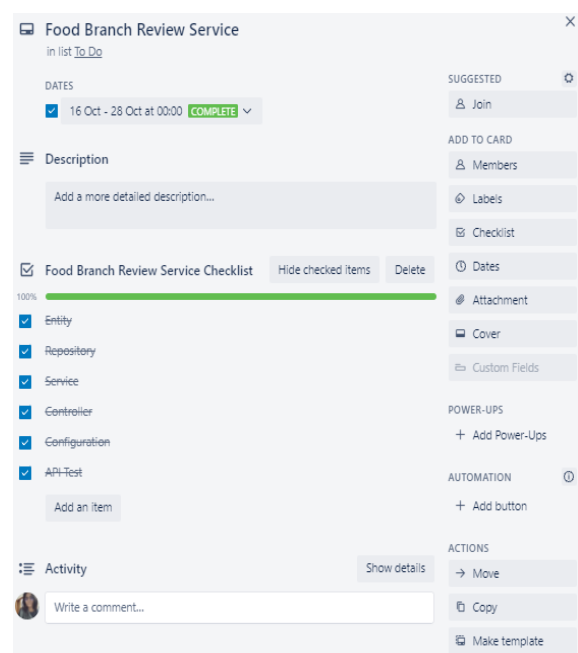


Figure 3.12: Food Branch Review Service

3.3 Project Task and Activities:

“OfferBuzz” is one of the in house project the organization. The idea behind this project is one of our need that is we can find all kind of exciting and wholesome offer that we are looking for any kind of business. The favorite brands, company will reveal their offer here and customer can easily avail them by using OfferBuzz. Every promotional material will be presented and business surely will get an expansion in size.

So these project is following the microservice architecture. The reason for using this architecture is that it's the most fast and adoptable architecture. All the successful companies like Netflix, eBay, Amazon, Twitter, Paypal has evolved from monolithic

to microservice architecture. It's easier to update any feature without touching other features. The whole big thing get divided into small services. And developers gets the chance to work independently. It clearly decreases the dependencies.

The whole project's frontend is developed by using React Js, Vue Js. And backend is developed by using spring boot framework. IT's an open source Java-based framework use to create a microservice. This framework can be applied on all architectural layers in the web application development. Modules can be linked easily and testing can be done easily. It also supports declarative programming and many more. OfferBuzz, itself consist of 24 services. Which are listed below:

<i>Serial No</i>	<i>Service Name</i>
1.	Business Service
2.	Vendor Service
3.	Vendor Business Service
4.	Vendor Notification Service
5.	Food Branch Service
6.	Food Branch Notification Service
7.	Food Service
8.	Food Coupon Service
9.	Food Order Service
10.	Food Offer Service
11.	Food Reservation Service
12.	Food Review Service
13.	Vlog Service
14.	Vlog Story Service
15.	Vlog Like/Unlike Service
16.	Vlog Comment Service

17.	Agency Service
18.	Attendance Service
19.	Accounting Service
20.	Food Report Service
21.	Admin Blog Service
22.	Admin Food Coupon Service
23.	Admin Food Advertise Service
24.	Messaging Service

Table no 3.2: List of services of the project

I was appointed to develop the backend part of the project which would use spring boot framework. For me the tech master selected the following services:

SERIAL NO	SERVICE NAME
1)	Food Service
2)	Food Offer Service
3)	Food Coupon Service
4)	Food Order Service
5)	Food Reservation Service
6)	Food Branch Review Service

Table no 3.3: List of services needed to complete

Planning phase: This phase was full of briefing about the requirement of the whole project. From the table no 3.2 food service is basically the online food menu seeing and adding food additional according to the taste. And food offer service exposes all offers related to food. We all get coupons from food companies for discount food coupon service will help a user to use his/her food coupon. By seeing the offers one

can reserve any food item by food reservation service and food branch review will present the branch reviews and also user can rate and give their feedback in this section.

After analyzing the requirements it was time to draw the ER diagram and make sure the relation among the services as well. There are some ER diagram is given below for the selected services for me :

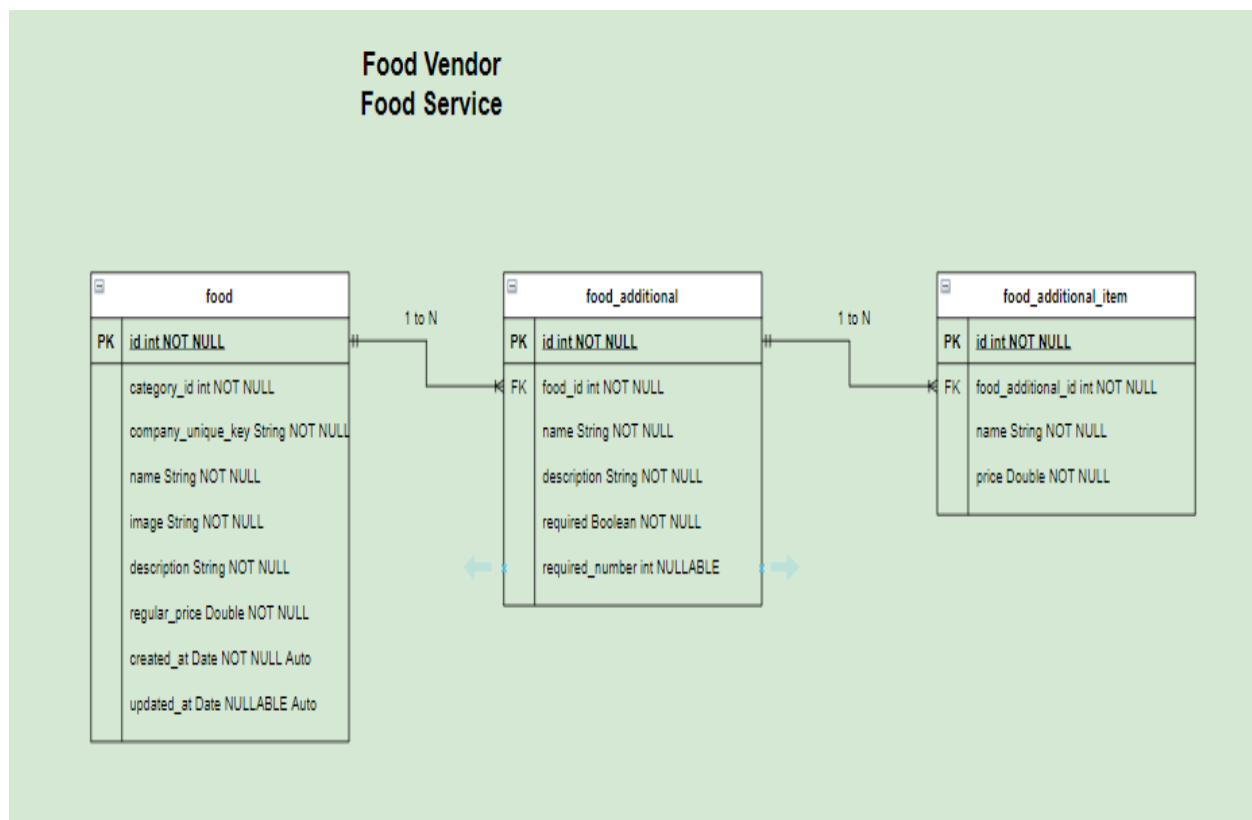


Figure 3.13: ER diagram of Food Service

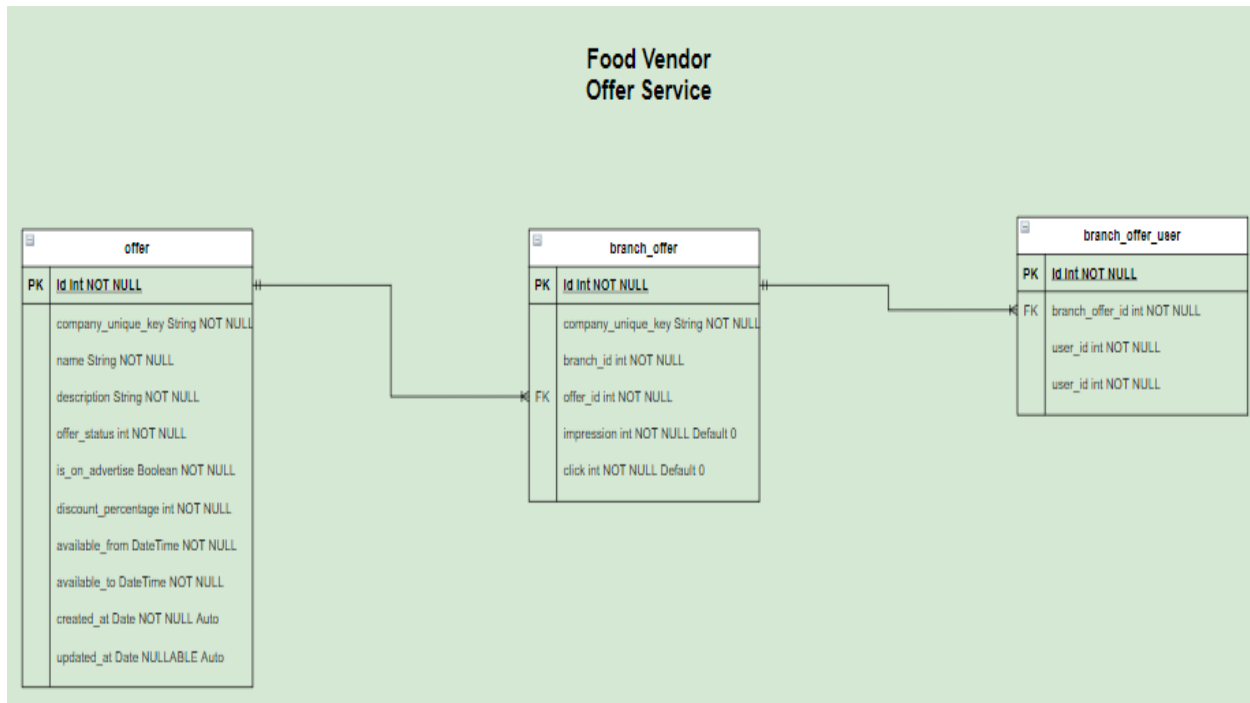


Figure 3.14: ER diagram of Food Offer Service

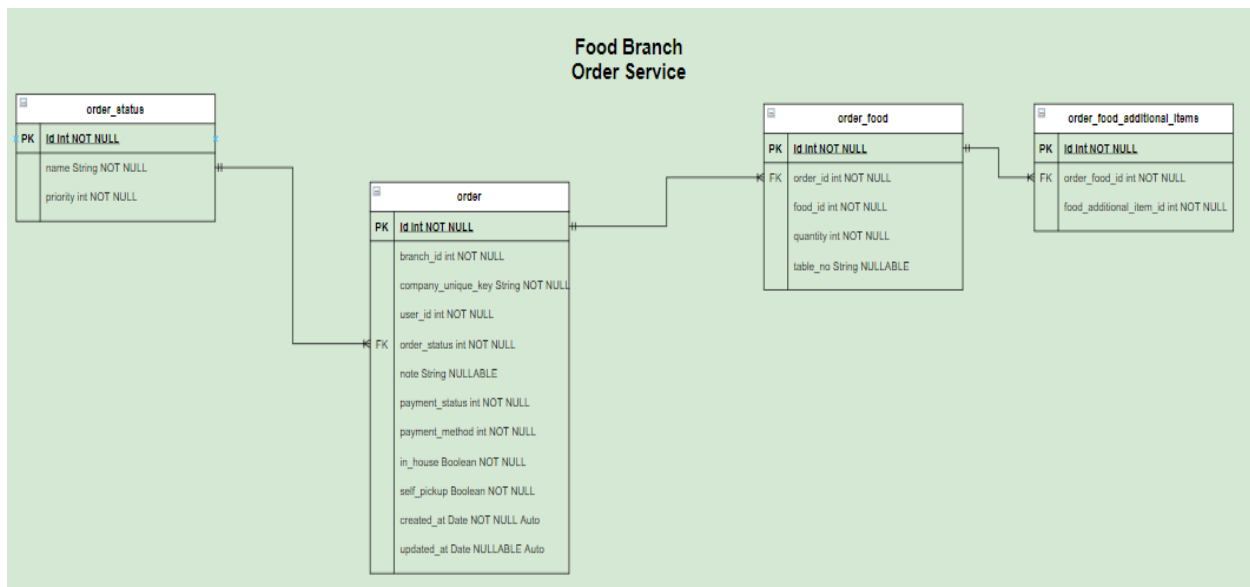


Figure 3.15: ER diagram of Food Order Service

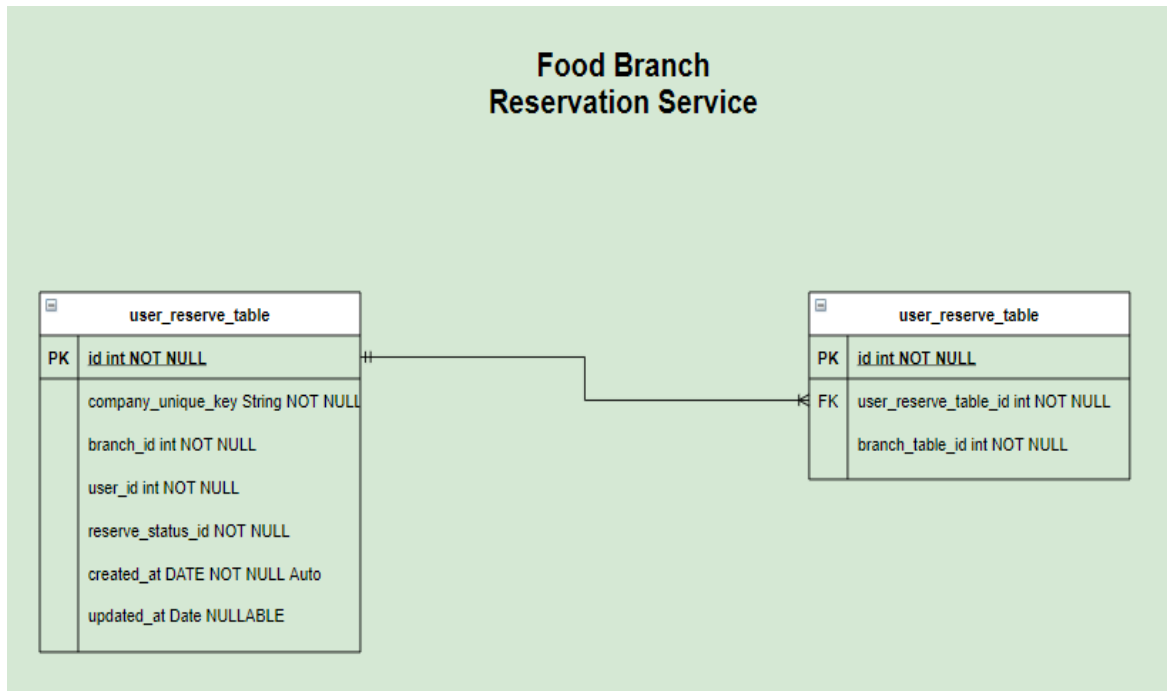


Figure 3.16: ER diagram of Food Reservation Service

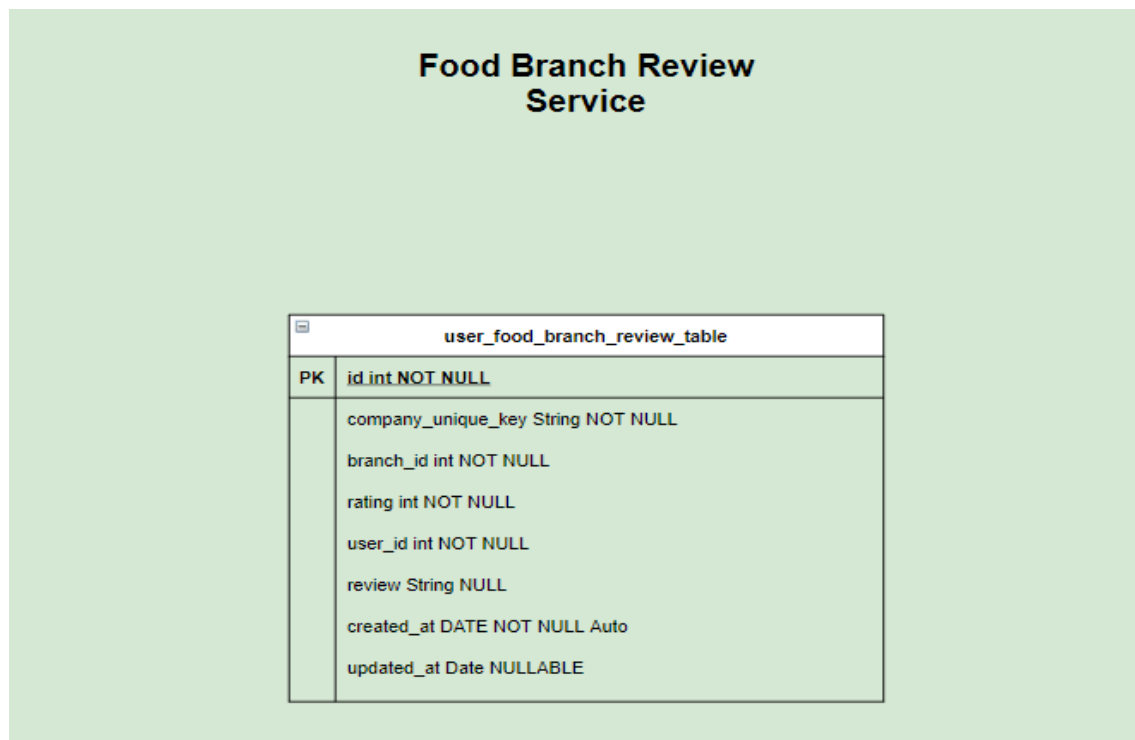


Figure 3.17: ER diagram of Food Branch Review Service

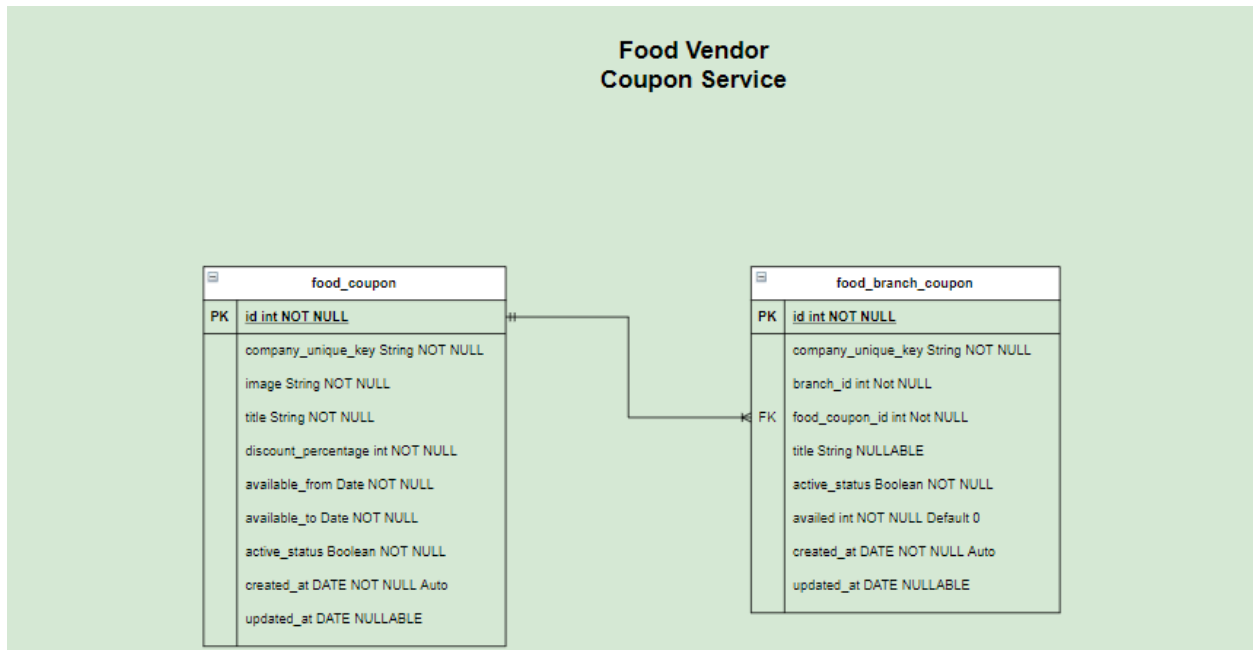


Figure 3.18: ER diagram of Food Coupon Service

Also drew a class as an example so that it can be used for every services as all the services would have same type of section in the code structure only the class name and other attributes will be changed.

This class diagram has been made following the structure of spring boot framework's code, example were share on the documentation of spring boot. So basically I followed that because I was strictly instructed to follow only that documentation for any kind of theoretical or structural idea for the programs.

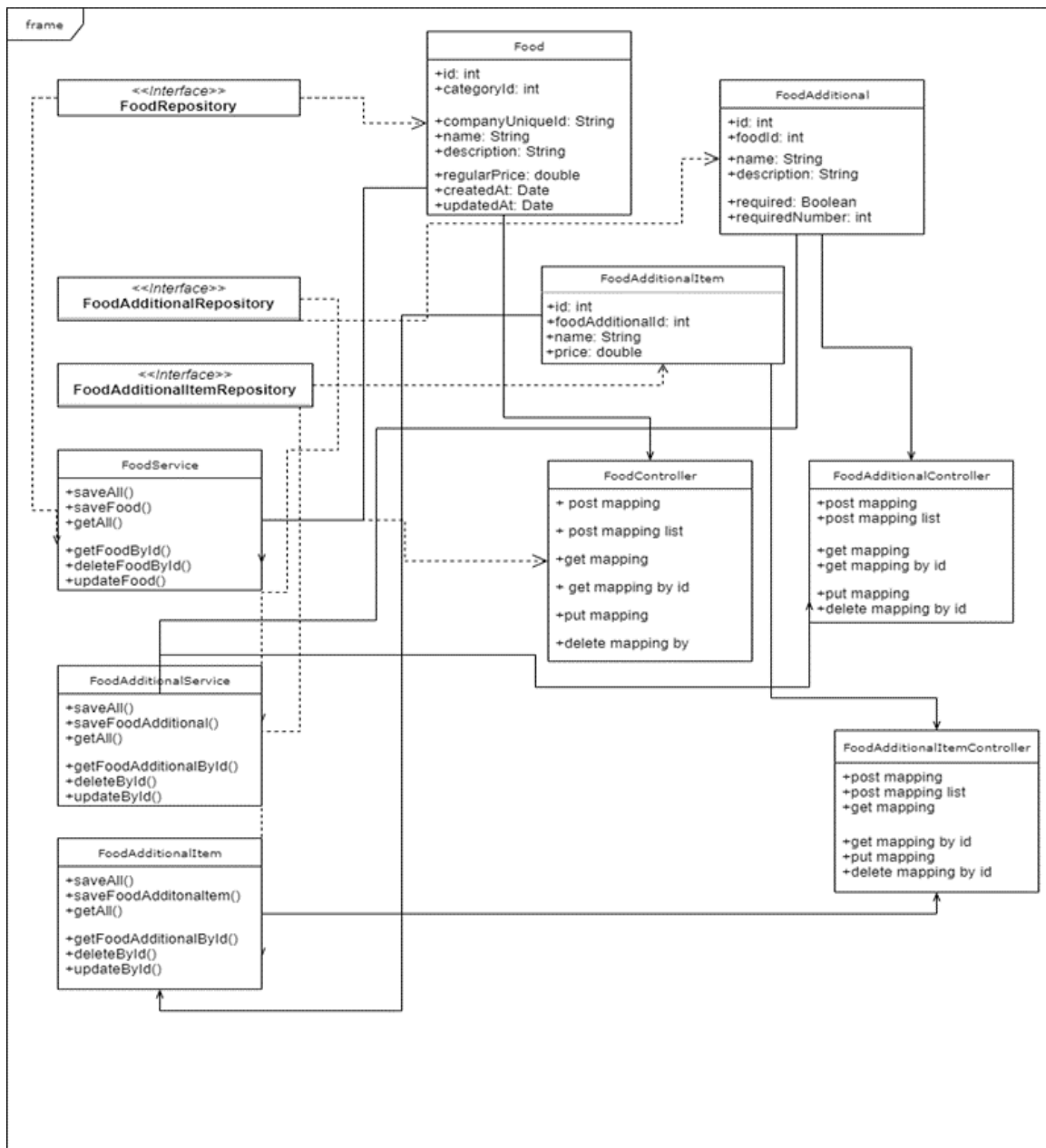


Figure 3.19: Class diagram for Food Service

Implementation phase: After getting the confirmation for the diagrams started implementation. And I used IntelliJ IDEA for the programming, it is an IDE written in JAVA for developing software.

Testing phase: As I was developing the backend programs of the selected services. So it was needed to check whether the CRUD functions and relational database is working properly or not so that used Postman for testing and storing the data used the phpMyAdmin.

Some glance of how this Postman helped me to test the program's CRUD functionality is given below:

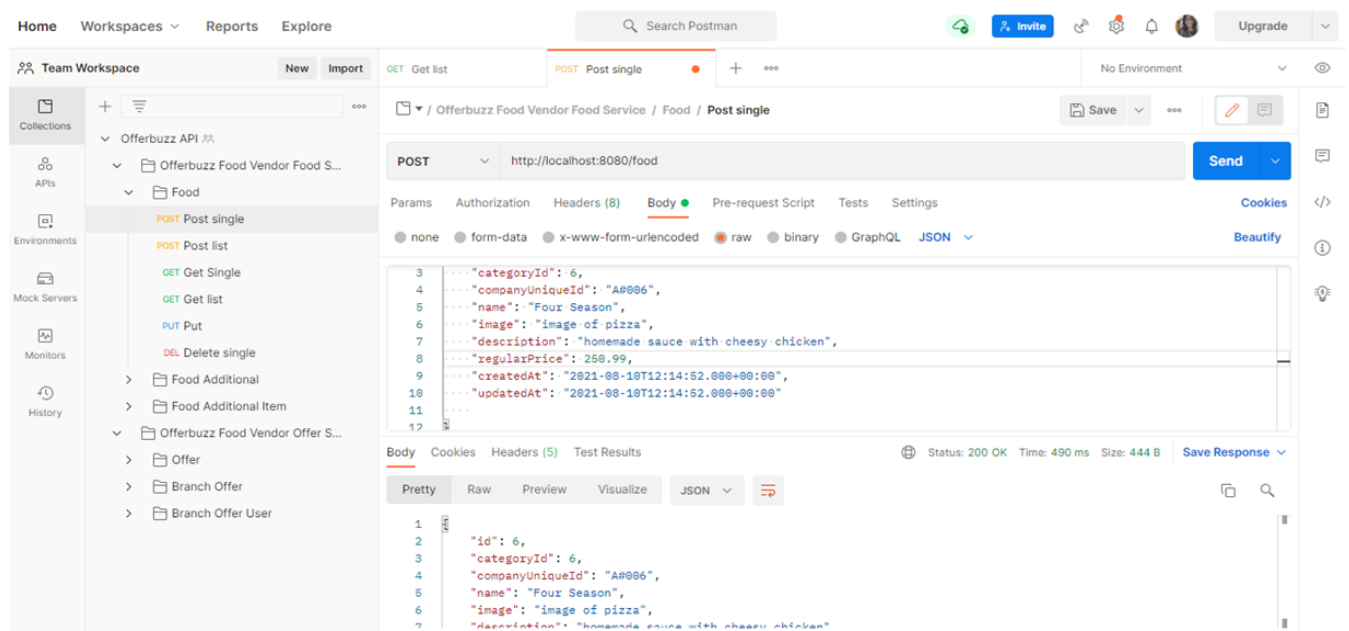


Figure 3.20: POST mapping of a service

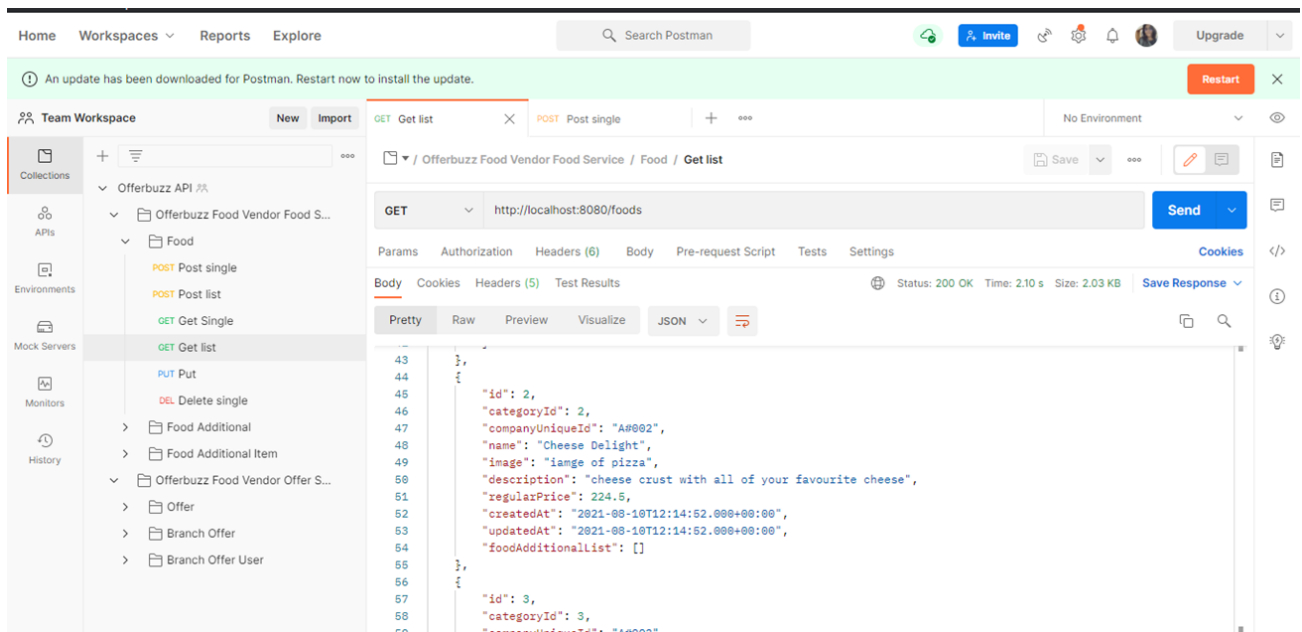


Figure 3.21: GET mapping (List)

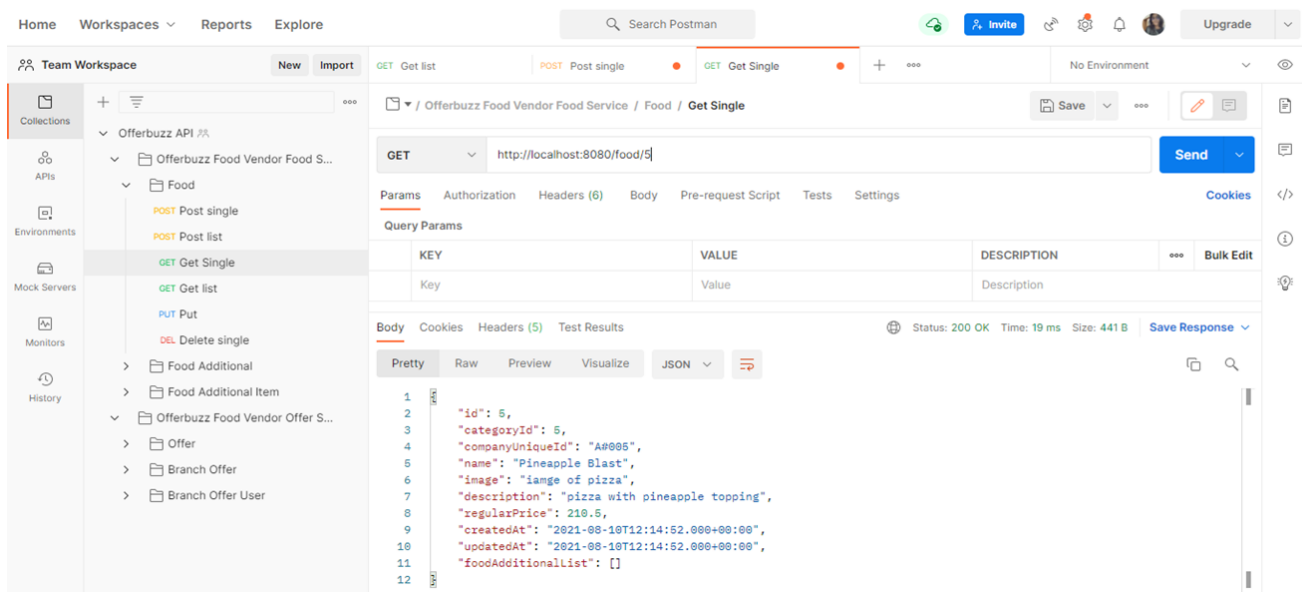


Figure 3.22: GET mapping (by ID)

Here GET mapping by id 5 is showing that it has some mistake like 'image' spelling not right.

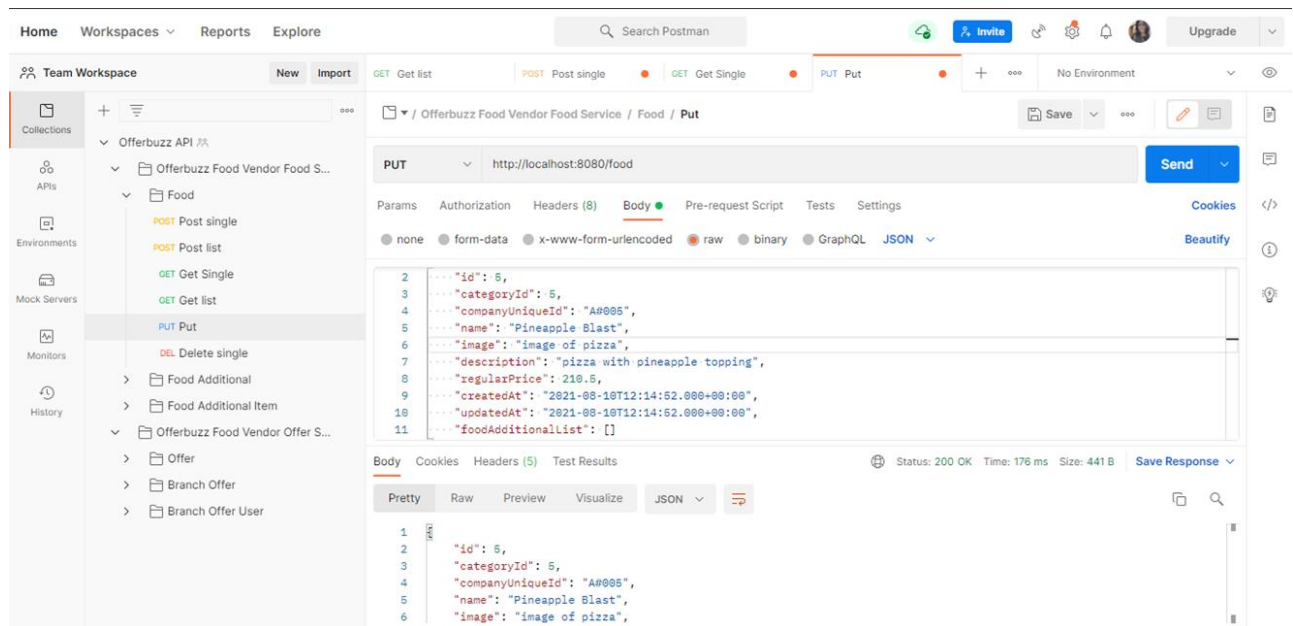


Figure 3.23: PUT mapping (list)

Here by using id 5 in JSON file I have update the spelling of ‘image’.

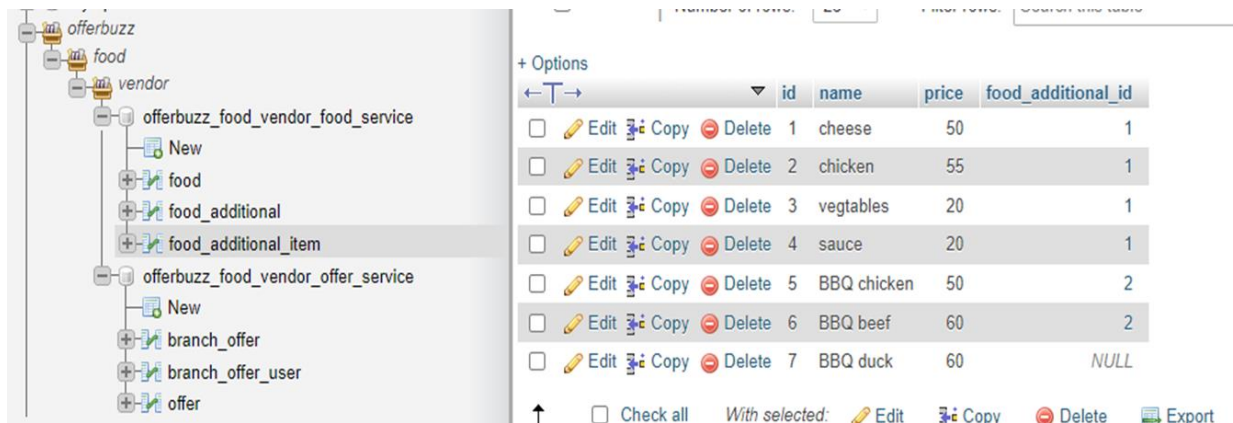


Figure 3.24: Database of food additional item

Here we can see that what are the food additional item are stored in database.

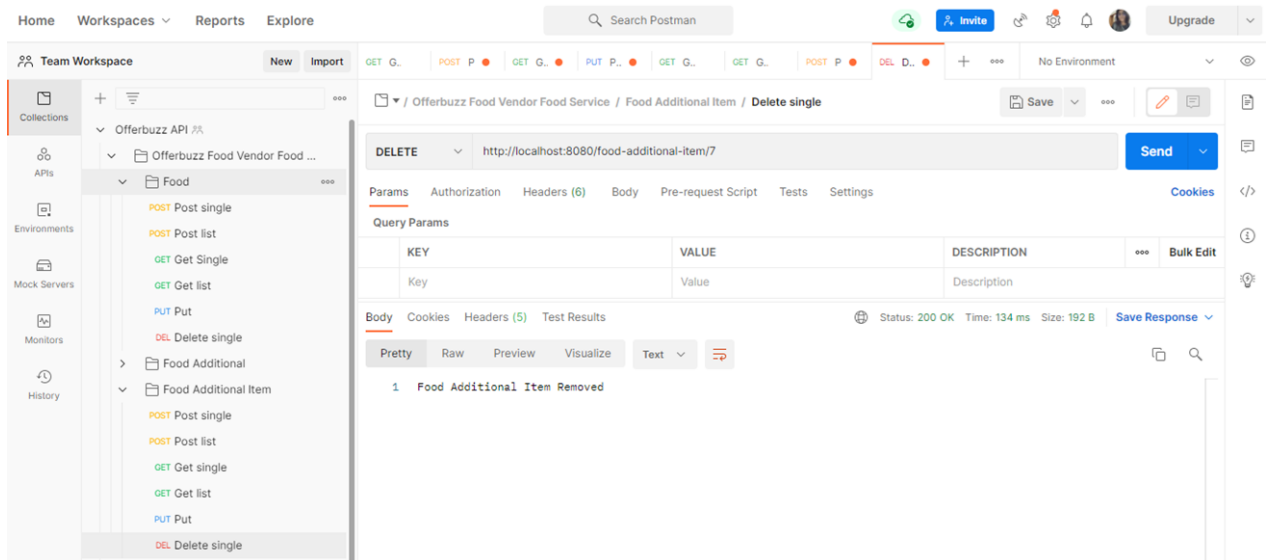


Figure 3.25: DELETE mapping

Here I have deleted the food additional item successfully by using delete mapping.

It concludes that the CRUD function is working properly.

3.4 Challenges:

Learning a new framework following the documentation only was completely a new experience for me. I took a lot of time in my internship period to study these things. And applying the theories for the project was another level of challenge for me. I worked with a team where each and every single person were professionals and knew their work so deeply. Coping up with them was difficult. Managing the timeline made everything pressurized.

Though I have worked on several projects in my courses still building the relationship between the entities was challenging. Fixing the bugs, facing software crashes, unlimited syntax mistake while programming made my path challenging. But the team members always there to help me out whenever I was in serious problem.

CHAPTER 4

COMPETENCIES & SMART PLAN

4.1 Competencies Earned:

Nowadays a skill engineer is an asset for the country. Getting high CGPA, passed from a renowned institution are not the only thing a graduate should achieve. Only theoretical idea is necessary but knowing the right process of applying them into the development layer is the most and only important thing in real competitive world. Before walking at the interview I went through a lot of job advertisements. The requirements are really something different from our general curriculum. For example I am giving an advertisement of recruitment in IT sector below:

Educational Requirements

- Bachelor of Science (B.Sc) in CSE,IT.

Experience Requirements

- 3 to 5 year(s)

Additional Job Requirements

- At least 3 to 5 years' experience on JAVA Frameworks (Like: Spring Boot)
- Very good knowledge about OOP concepts.
- Understanding Microservice Architecture
- Knowledge of DevOps be a plus
- Familiarity with C++, PHP or .NET also be a plus.
- Knowledge of Vue.JS/JQuery, MySQL/ SQL Server is essential.
- Very good logic and problem solving capability.
- Quick Learner and curious to learn new technology.
- Team player, proactive and productive, highly dedicated and motivated person.
- Good verbal and writing communication

Figure 4.1: Requirements for a backend developer

As I am always interested in backend development, I have seen that the most of the additional requirements include OOP concept, JAVA framework (Spring Boot), Microservice Architecture. These are really in the sensation in job market.

At this moment I can at least say that I have earned some competencies though out this journey of internship. They are:

▪ Idea about microservice architecture
▪ Differences between monolithic and microservice architecture
▪ JAVA framework Spring boot
▪ How to use the documentation of any framework or tool
▪ Working in a big professional team
▪ Time management
▪ New techniques to fix the bugs
▪ Improved idea about relational database
▪ Using github for professional purpose

Table no: List of Competencies gained

Now I can at least present these competencies as my experience and this learning period has made me a lit bit more confident about the skills.

4.2 Smart Plan:

If a programmer or software engineer wants to prosper in their fields one should follow the SMART formula which will give a 50% more chance to achieve the goals.

Basically the goal must be specific, measurable, attainable, relevant and time-bound.

Through this internship I have come up with a Smart plan for my improvement that is to build website, will give four nights equal time in every week, it should be a challenging task using difficult framework and concept but doable, and attainable relevant idea for using as my start up concept and should not take more than one month. So the SMART plan as backend developer or web developer is:

S -	BUILD A WEBSITE
M-	FOUR NIGHTS FOR EACH WEEK
A-	ATTAINABLE AND DOABLE
R-	START UP IDEA
T-	NOT MORE THAN ONE MONTH

Table no: 4.2: Smart plan for next one month

4.3 Reflections:

It is the first ever job experience in software development industry as an intern.

Without any practical idea I straight started my journey with eCarnivalBD Limited.

Though Covid situation didn't have any control I got a professional taste when I daily attended the meetings. I got learn and know new facts about this competitive world.

My first two to three weeks were really tough, by working with completely unknown voices and making myself comfortable. Although it was my learning period so interaction were small in quantity. But when it comes to planning phase I got a chance to meet with team at their office and started feeling reliable. As use scrum methodology so every day there was update meeting where all the works got distributed. Difficulty level for maintaining the time was really high but the team members got my back and made sure that I work only to learn a new framework properly without any pressure. Not only did I get to learn but also got chance to contribute in their project which is satisfying for me at the end of the day.

CHAPTER 5

CONCLUSION & FUTURE CAREER

5.1 Discussion and Conclusion:

It has been a dreamy opportunity for me to work as intern at the eCarnivalBD Limited. This internship program enriched the important knowledge on how the IT sector works. It has given idea that what are the technologies are using by the companies. Professional culture of a company has been introduced to me through the period. It helped to enhance good observation skill, adopting new technology by following its documentation, work within team. At the same time how software or web app development actually works according the methodology has been exposed to me. The team discussion and suggestions of every member is important without any doubt. Because all the backlog were being written after the discussion. It made me realize the market value of trendy skills. I would like thanks ULAB, eCarnivalBD Limited for giving me this opportunity to gain idea of the competitive environment in the professional field.

5.2 Scope for the Further Future:

Each and every two or three day IT companies comes with a recruitment advertisement. I have a keen interest in backend developing. OOP concept has set nicely in my brain and now I have an experience to work in live project using spring boot framework. So I will look forward to use this experience in the competitive job world. I believe a person's learning phase never meets the ending point, he/she should continue learning until the last breath. In this period I have learnt how to adopt new technology within short span of time. So in future if there's a demand to learn a new framework for a project I will use my experience on that situation. I am in the middle point the beginning of me being ready for the world.

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APPENDICIES

APPENDIX A: Internship Reflection

1. Sample code for application.properties file, where port, datasource url , jpa properties were included.

```
1  spring.datasource.username=root
2  spring.datasource.password=
3  server.port=8080
4
5  spring.application.name=offerbuzz_food_vendor_food_service
6  spring.datasource.driver-class-name=com.mysql.cj.jdbc.Driver
7  spring.datasource.url=jdbc:mysql://localhost:3306/offerbuzz_food_vendor_food_service
8  spring.jpa.properties.hibernate.dialect=org.hibernate.dialect.MySQL8Dialect
9
10 spring.jpa.hibernate.ddl-auto=update
11 spring.jpa.show-sql=true
```

2. Sample code for pom.xml file where all the dependencies are written which I have used in my code

```
<dependencies>
  <dependency>
    <groupId>org.springframework.boot</groupId>
    <artifactId>spring-boot-starter-data-jpa</artifactId>
  </dependency>
  <dependency>
    <groupId>org.springframework.boot</groupId>
    <artifactId>spring-boot-starter-web</artifactId>
  </dependency>

  <dependency>
    <groupId>mysql</groupId>
    <artifactId>mysql-connector-java</artifactId>
    <scope>runtime</scope>
  </dependency>
  <dependency>
    <groupId>org.projectlombok</groupId>
    <artifactId>lombok</artifactId>
    <optional>true</optional>
  </dependency>
  <dependency>
    <groupId>org.springframework.boot</groupId>
    <artifactId>spring-boot-starter-test</artifactId>
    <scope>test</scope>
  </dependency>
</dependencies>
```

3. Sample code for entity file where all the attributes of a service was written with the relational database code.

```
public class FoodAdditional {  
  
    @Id  
    @GeneratedValue(strategy = GenerationType.IDENTITY)  
    private Long id;  
  
    @Column(nullable = false)  
    private String name;  
  
    @Column(nullable = false)  
    private String description;  
  
    @Column(nullable = false)  
    private Boolean required;  
  
    @Column(nullable = true)  
    private int requiredNumber;  
  
    @OneToMany  
    @JoinColumn(name = "food_additional_id")  
    private List<FoodAdditionalItem> foodAdditionalItemList = new ArrayList<>();  
  
}
```

4. DELETE mapping sample syntax as input while testing

Delete single food item

```
DELETE http://domain/api/v1/vendor-food/item/{id}
```

```
Example http://domain/api/v1/vendor-food/item/1
```

5. JSON file for creating the data using post mapping

```
{
  "branchId": 1,
  "userId": 1,
  "reservedBy": "Sonjoy Tripura",
  "phone": "1111111",
  "foodBranchReserveStatus":
  {
    "id": 1,
    "title": "Pending",
    "priority": 1
  },
  "userReservedBranchTables": [
    {
      "id": 1,
      "branchTableId": 1,
      "quantity": 1
    },
    {
      "id": 1,
      "branchTableId": 2,
      "quantity": 1
    }
  ]
}
```

APPENDIX B: Company Detail

1. Appointment letter from the company.



