Bangladesh University of Business and Technology

System Analysis Design
on
Cafe Management System

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1 Introduction

Cafe Management System is based on a concept to maintain orders and management of a particular items. This project is developed in C sharp.NET using C sharp language used. The role of the user is to maintain information including operations like modifying, deleting, updating the items records and customer order records in the system. Cafe Management System is a windows form application developed in C sharp programming language to carry out and manage basic cafe operations efficiently. This win application is perfect for a cafe or small coffee shop owners where they are in need of an application to run and simply ease out their day to day managerial task.

Figure 1: Cafe Management System

1.1 Why Chosen

By owning a cafe, we can create a safe space and a pleasant environment for people who seek it, and also give people space to socialize! We can make it our brand if we want, bringing people together and offering amazing service seems pretty simple, but it's such an impactful thing! We can hire different people, show solidarity and inclusivity, so people feel welcomed and appreciated!

1.2 Lacking's of Cafe Management System

There are many lacking's in cafe management system.
Such as:

- Lack of identity.
- The "wrong" menu.
- Running out of inventory.
- Overall management and customer service headaches.

1.3 Aims and Objectives

List of Aims and Objectives:

- To take order
- To add item
- To remove item
- To display menu
- To show bill
- To payment for the order
- To give feedback

2 Analysis Of the System

2.1 Context level diagram for existing system

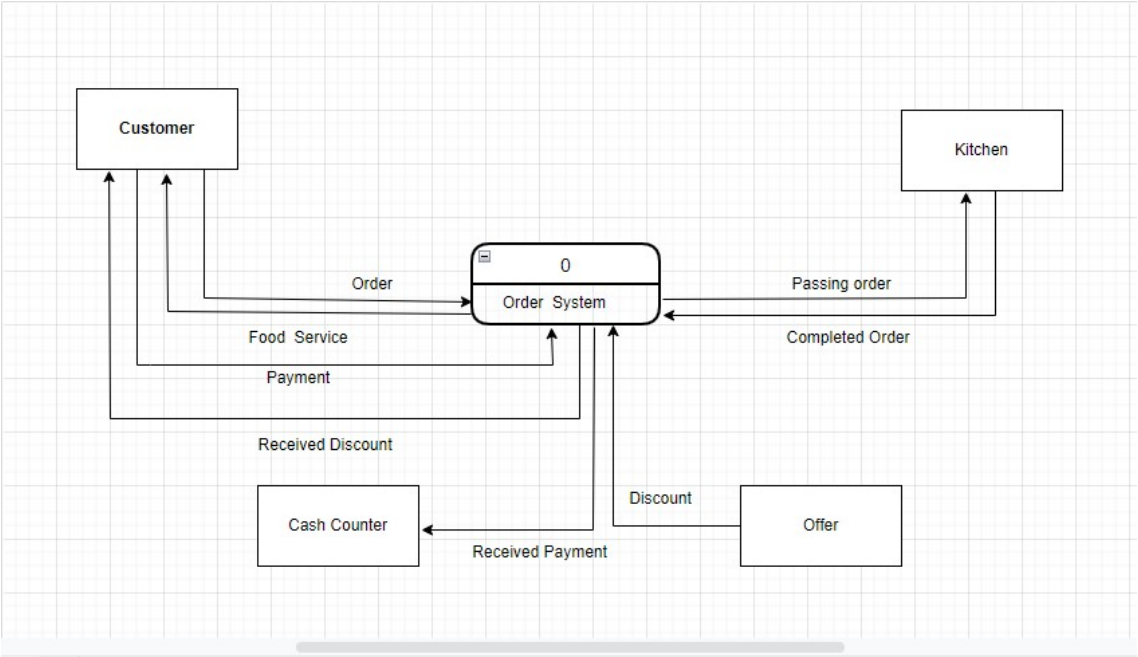

Figure 2: Context level diagram for existing system

2.2 0 level DFD for existing system

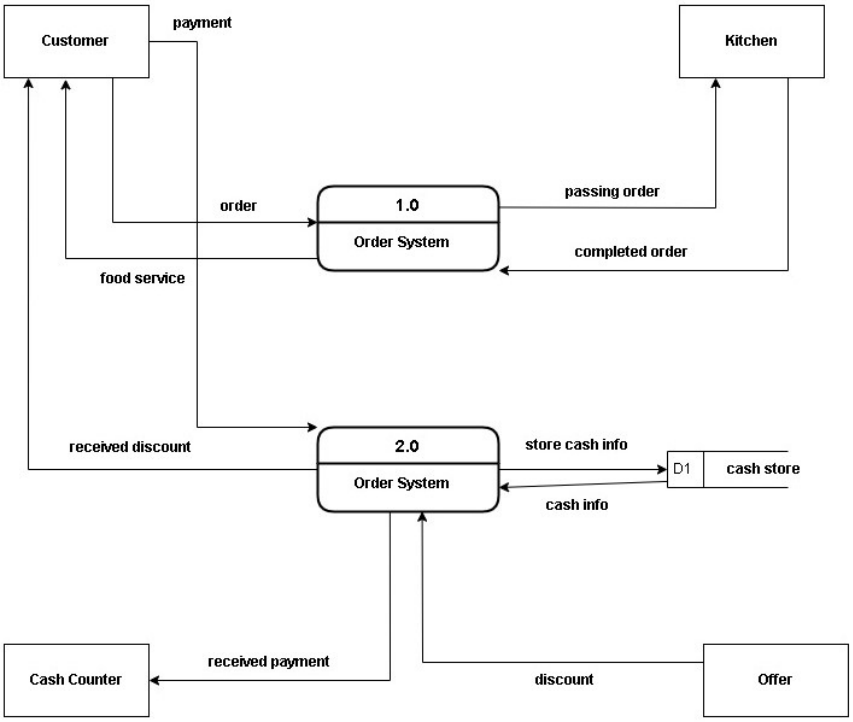

Figure 3: 0 level DFD for existing system

2.3 Use case diagram for existing system

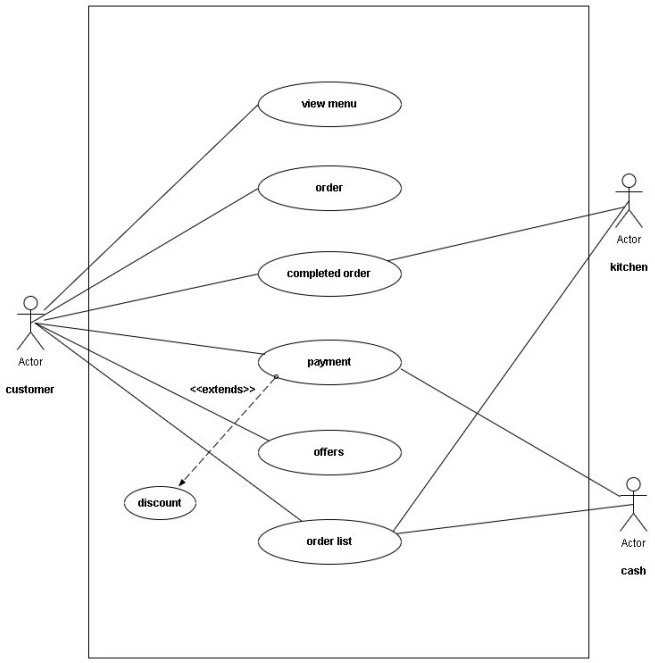

Figure 4: Use case diagram for existing system

2.4 Context level diagram for new system

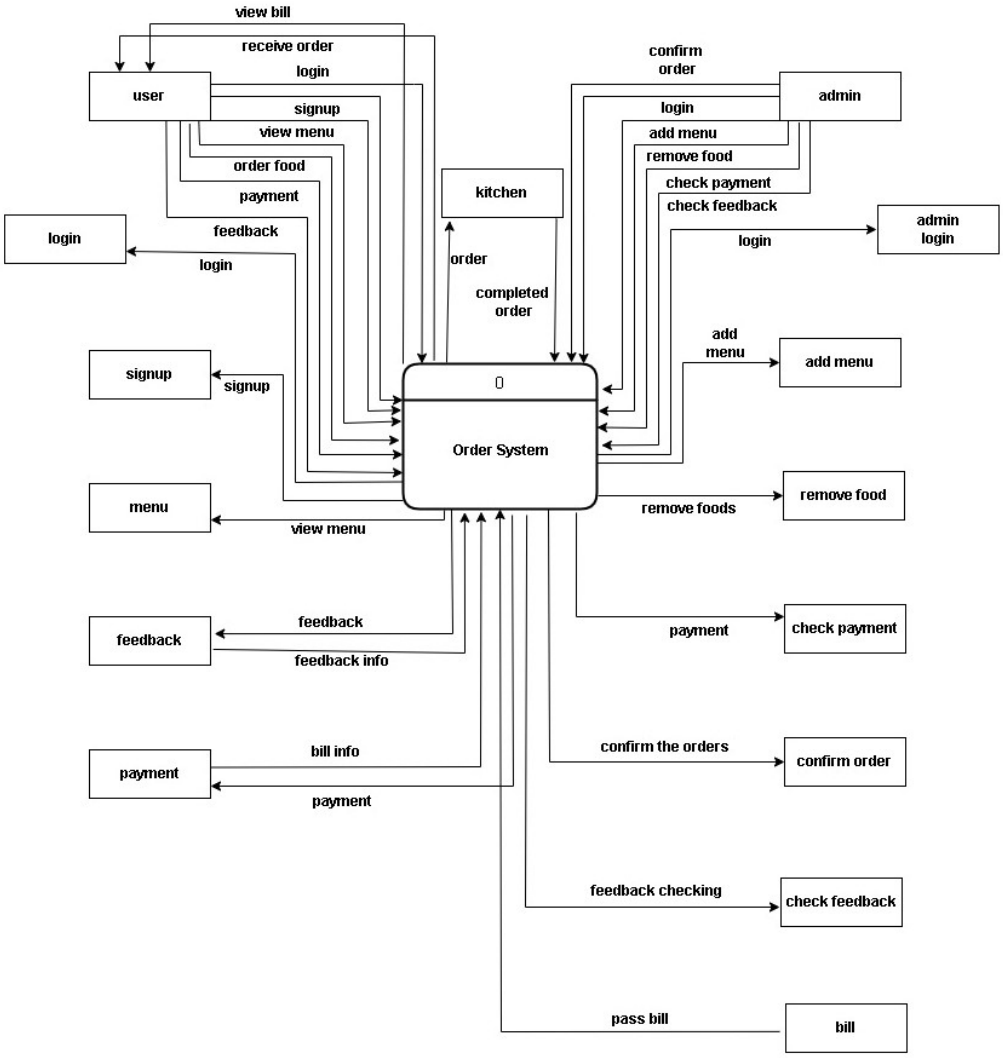

Figure 5: Context level diagram for new system

2.5 0 level DFD for new system

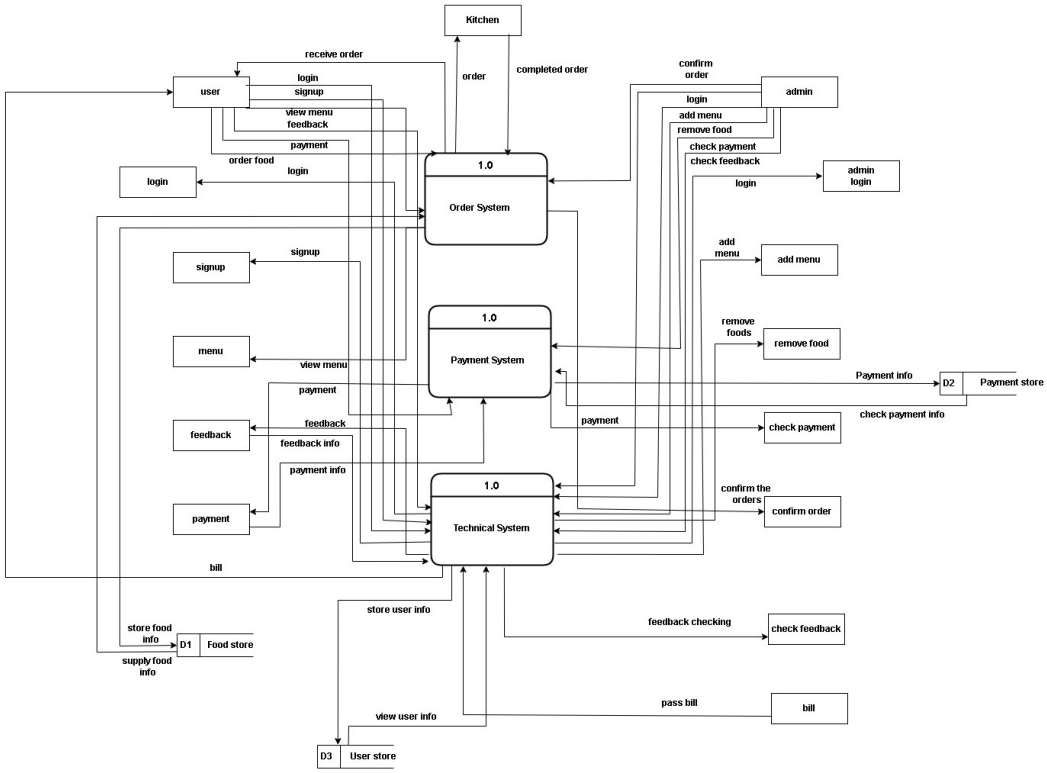

Figure 6: 0 level DFD for new system

2.6 Use case diagram for new system

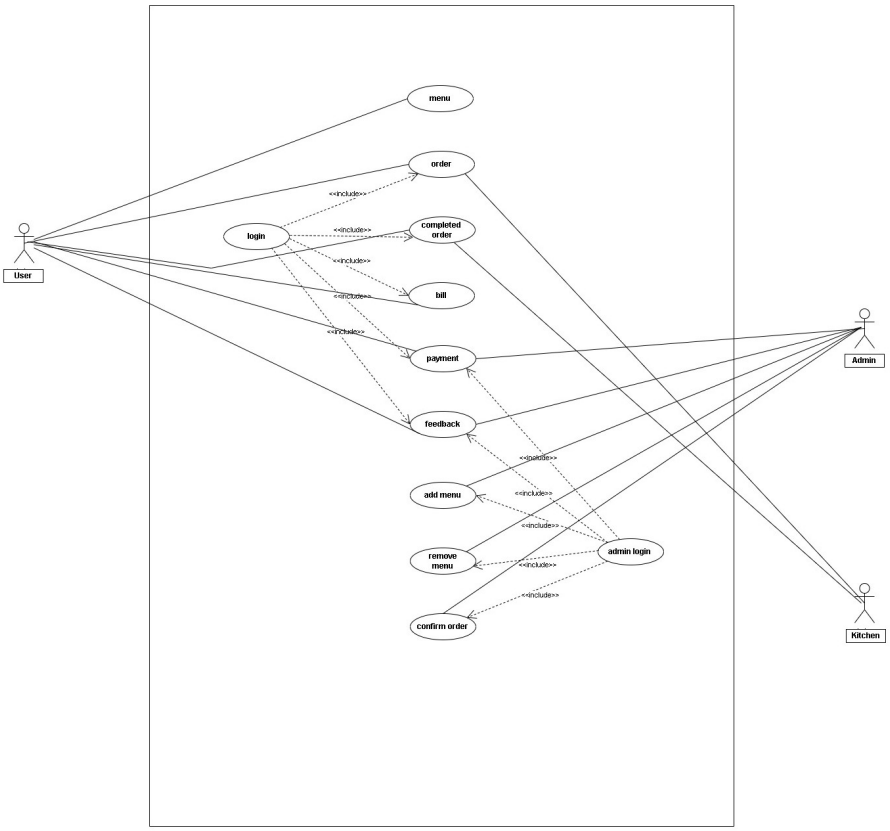

Figure 7: Use case diagram for new system

3 Feasibility

3.1 Technical Feasibility

Technical feasibility is the process of figuring out how you're going to produce your product or service to determine whether it's possible for your company.

Our project is Cafe Management System. We are offering a system which is fully operate using software. So it is technically feasible for any cafe who want to use this system.

3.2 Operational Feasibility

Operational feasibility is the measure of how well a proposed system solves the problems, and takes advantage of the opportunities identified during scope definition and how it satisfies the requirements identified in the requirements analysis phase of system development.
Our proposed system will do:
1. Our proposed system cafe management system will turn manual system into a software based system. So that the problems which are occur at the time of manual process won't be there anymore. 2. Our system will take advantage of the opportunities identified during scope definition. 3. Our system will satisfy the requirements identified in the requirements analysis phase of system development.

3.3 Economical Feasibility

Cost : Cafe's place booking + Furnitures + kitchen equipments + advertising + others
Capital : (300000+1500000+50000+300000+30000+100000) =2900000
Per month cost:

- Cafe rent: 50000
- Utility bill: 6000
- Manager : 40000
- Waiter 1: 15000
- Waiter 2: 15000
- Waiter 3: 15000
- Waiter 4: 15000
- Waiter 5: 15000
- Receptionist :16000
- Accountant: 35000
- Head chef: 90000
- Helper chef 1:70000
- Helper chef 2:70000
- Cleaner 1: 10000
- Cleaner 2: 10000
- Food products : 100000
- Electricity bill: 16000
- Others:10000
- So, total cost: 598000

Year	Cost	Total cost	Benefit
0	2900000	0	0
1	7176000	10076000	-234615
2	14352000	24428000	-26431
3	21528000	45956000	34612
4	28704000	74660000	130226

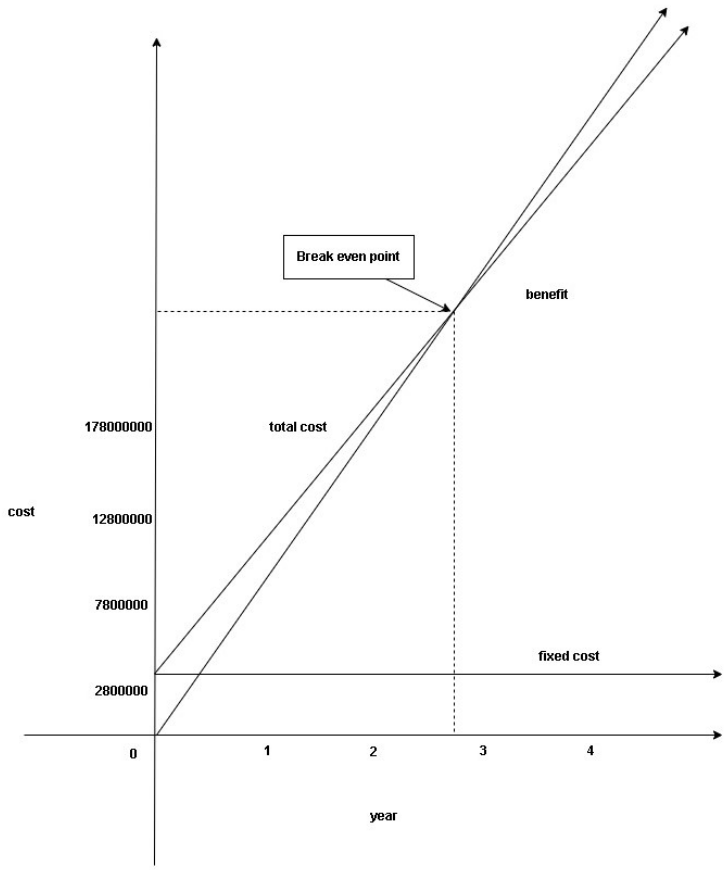

Figure 8: Break-even point

4 Graphical User Interface

4.1 Homepage

Figure 9: Welcome

4.2 User and Admin Page

User and admin both can access in this page.

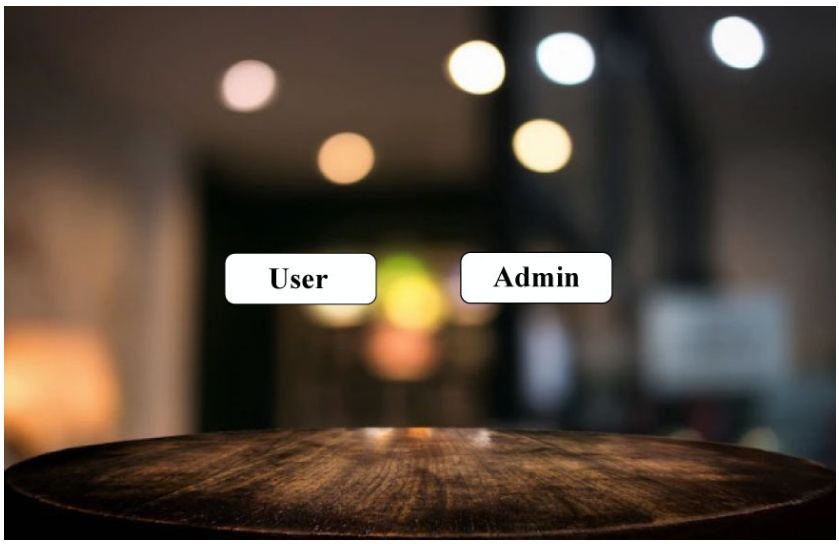

Figure 10: User and admin Page

4.3 User Interface

User can login or sign up and view food menu from this page.

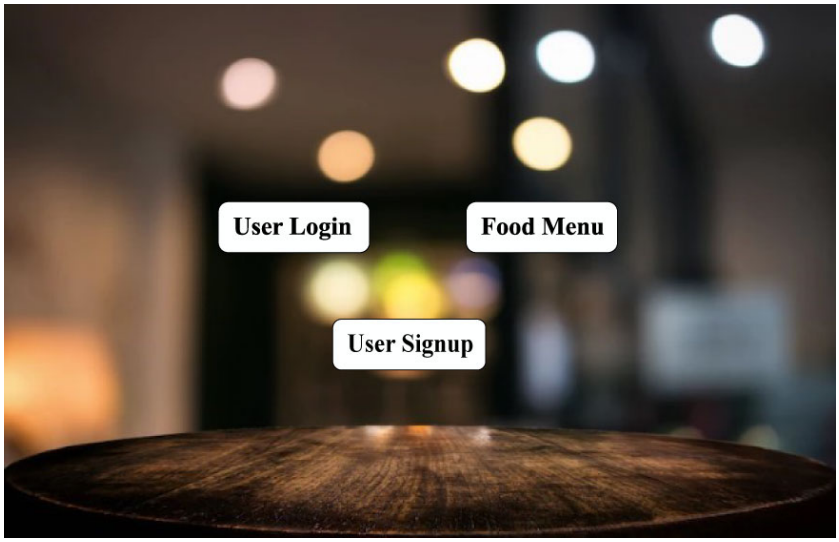

Figure 11: User Page

4.4 User Login

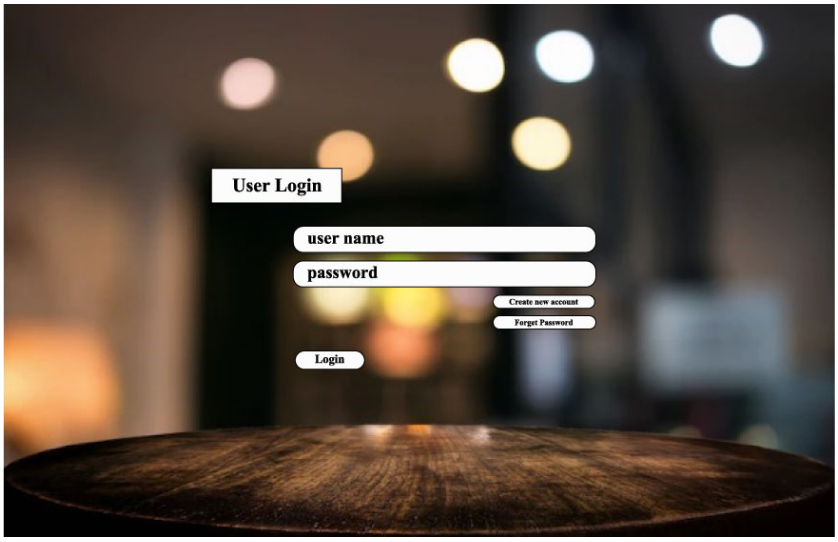

Figure 12: User login

4.5 User Sign-up

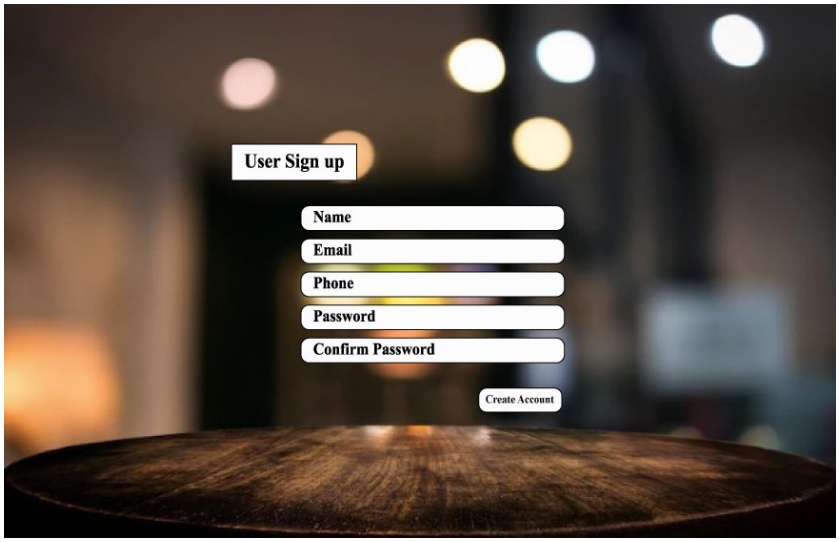

Figure 13: User sign up

4.6 Food Menu

User can view the list of the foods.

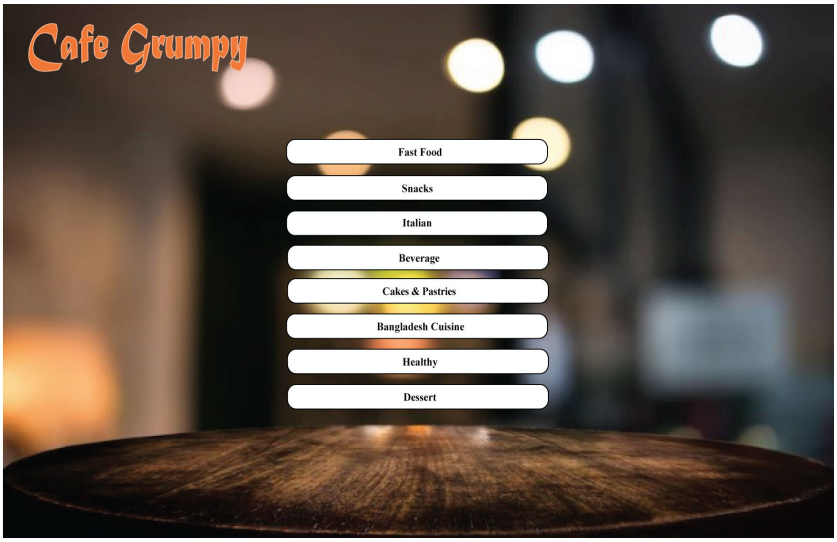

Figure 14: Food Menu

4.7 Fast Food Menu

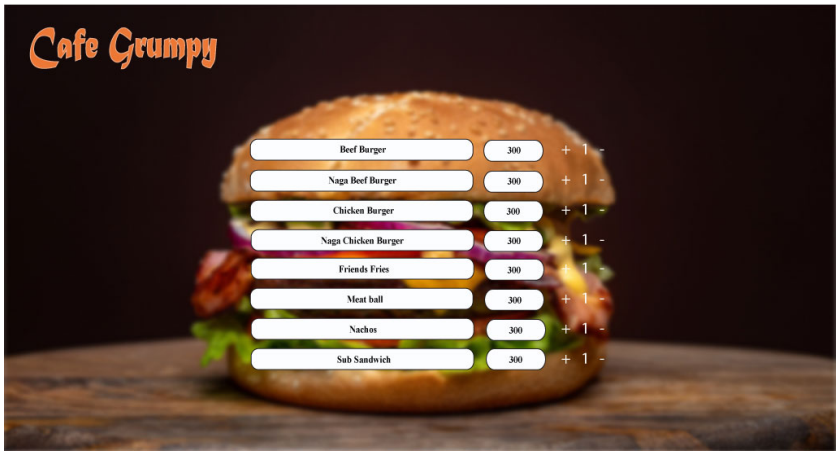

Figure 15: Fast Food Menu

4.8 Snacks Menu

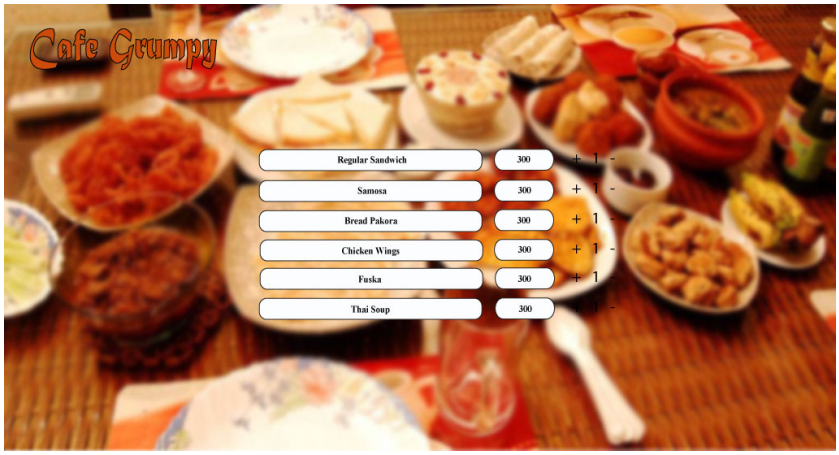

Figure 16: Snacks Menu

4.9 Italian Food Menu

Figure 17: Italian Food Menu

4.10 Beverage

Figure 18: Beverage Menu

4.11 Cake and Pastries Menu

Figure 19: Cake and Pastries Menu

4.12 Bangladeshi Cuisine

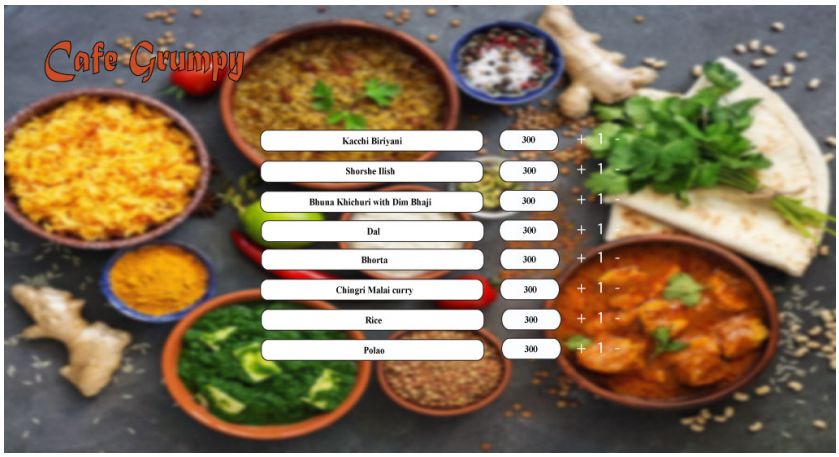

Figure 20: Bangladeshi Cuisine

4.13 Healthy Food Menu

Figure 21: Healthy Food Menu

4.14 Dessert Menu

Figure 22: Dessert Menu

4.15 Order List

User can view the order list and total price as well as user can add or remove foods.

Figure 23: Order List

4.16 Bill

User can pay bill for cafe on service or order for takeout or delivery.

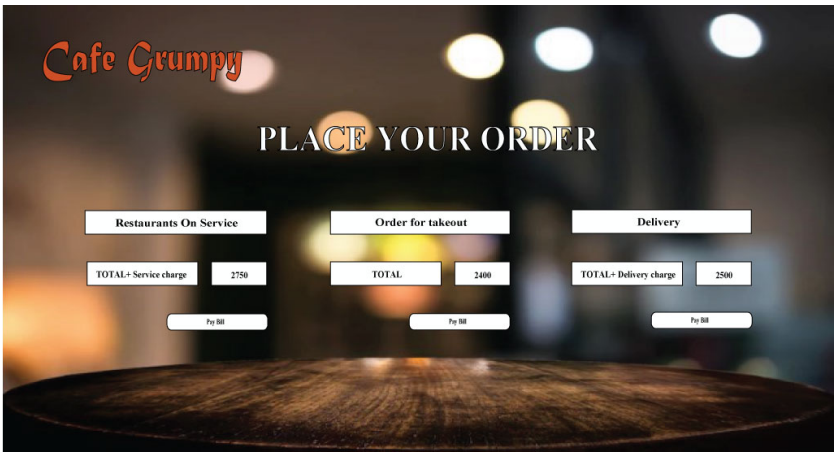

Figure 24: Bill

4.17 User Payment

There are 4 payment systems.(online payment,Cash,Visa,Credit Card).

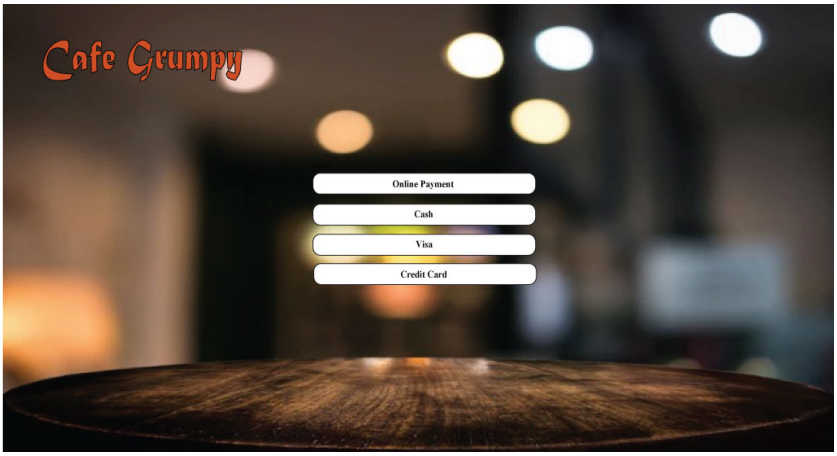

Figure 25: User Payment

4.18 User Feedback

User can write feedback in this page.

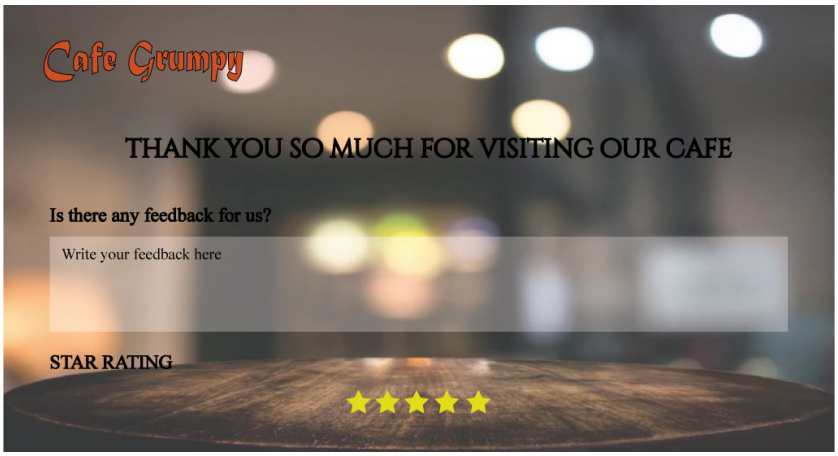

Figure 26: User Feedback

4.19 Admin Interface

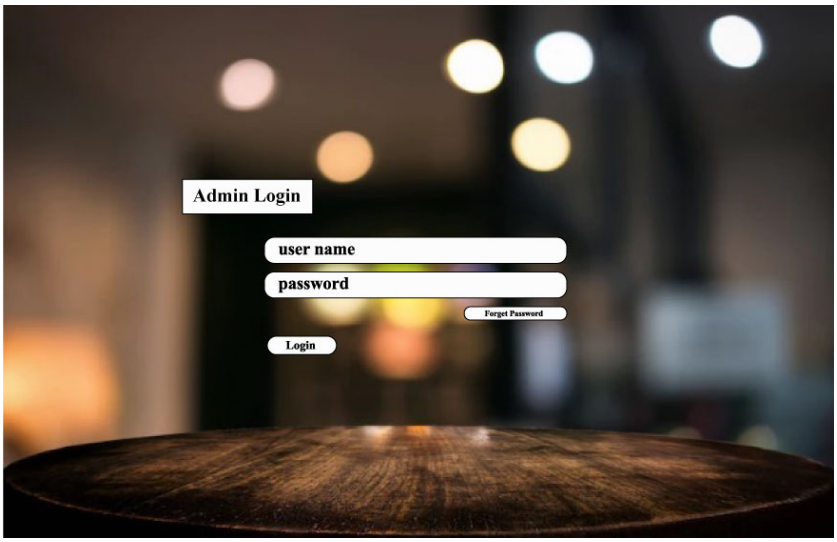

Figure 27: Admin Login

4.20 Admin Page

Admin can add menu,remove from menu,confirm order,check payment and check feedback from this page.

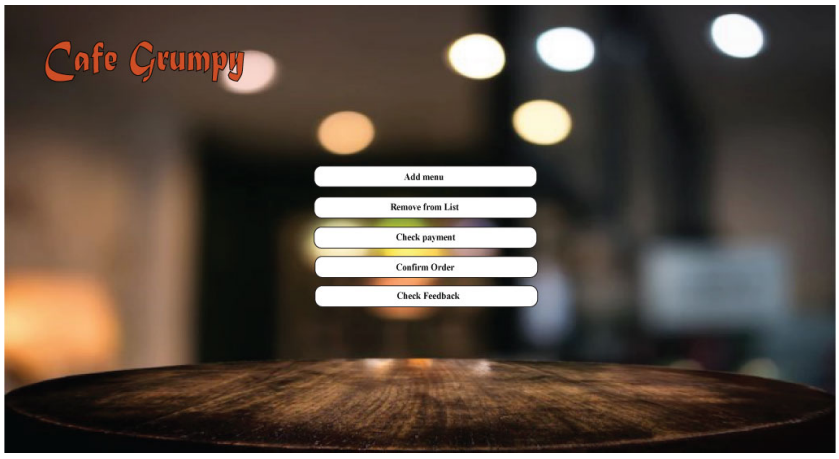

Figure 28: Admin Page

4.21 Admin Edit Menu

Figure 29: Admin Edit Menu

4.22 Remove Food

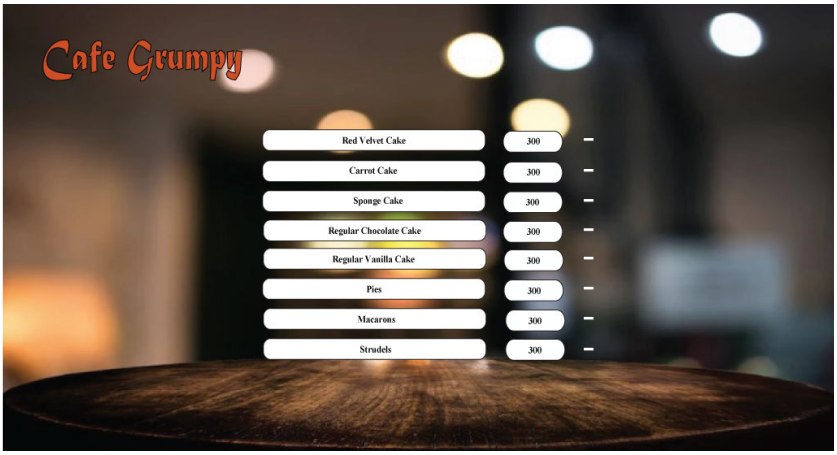

Figure 30: Remove Food

4.23 Confirm Order

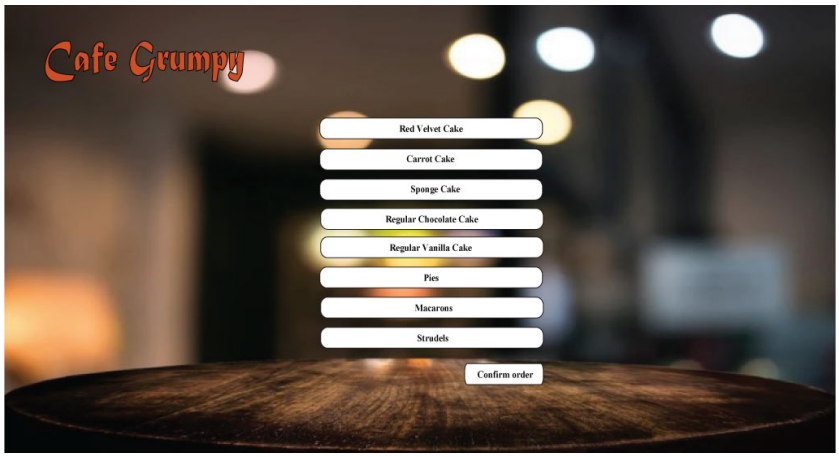

Figure 31: Confirm Oder

4.24 Check Payment

Figure 32: Check Payment

4.25 Check Feedback

Figure 33: Check Feedback

5 Future Scope

- In future we can open branches using our system, which will be profitable for our business.
- We can open food carts for the betterment of our business.
- In future if we can technically develop ours system, then we will be able to open vending machine in our town.

6 Conclusion

In conclusion, a cafe management system is essential for us to run our cafe efficiently and smoothly. We may not be at the cafe at all times but we must have access to this data at all times and a robust cafe management system helps us do just that.

7 Reference

- https://youtu.be/PjzediWjKPQ
- https://drive.google.com/file/d/1gMCk
- https://github.com/join