1. Introduction

1.1. Purpose

- The main objective of the pizza ordering system is to manage the details of pizza, order, payments, customers and status. The purpose of project is to reduce the manual work for managing the payments, customer, and online order.

1.2. Scope

- Online Pizza Ordering System will be a web based application. Its main aim is to simplify and improve the efficiency of the ordering process for both customer and pizza shop owners, minimize manual data entry and ensure data accuracy and security during order placement process. Customer will also be able to view product menu and their ingredients and be able to have visual confirmation that the order was place correctly.

1.3. Definition, Acronyms,Abbreviations

1.3.1 Definition

- The Online Pizza Ordering System can be defined as a simple and convenient way for customers to purchase Pizza and drinks online, without having to go to the restaurant.

1.3.2 Acronyms

- PHP: Personal Home Page
- XAMPP: Cross platform Apache MySQL PHP Perl

1.3.3 Abbreviations

- OS (Operating System): Windows 10

1.4. Technologies to be used

- **For Development**
  - **Hardware (Minimum Requirement)**
    - Processor: Pentium 4 or better
    - RAM:512 MB or more
    - Disk space: 750 MB of free disk space
  - **Software (Minimum Requirement)**
    - Operating System : Microsoft Windows Vista SP1/Windows 7 Professional or better version
    - Tool: Net Beans IDE 8.2.
    - Server: XAMPP
  - **Hardware (Recommended Requirement)**
    - Processor: Intel Core i5 or equivalent
    - Memory: 2 GB (32-bit), 4 GB (64-bit)
    - Disk space: 1.5 GB of free disk space
  - **Software (Recommended Requirement)**
    - Microsoft Windows 7 Professional/Windows 8/Windows 8.2 or better version
    - Tool: Net Beans IDE 8.2
    - Server:XAMPP
- **For Deployment**
  - **Hardware**
    - CPU: 1.8 GHz Intel Core i3
    - RAM:1 GB
  - **Software**
    - Front-End Tool: -Browser

2. System Analysis

2.1. Identification of Need

- The Existing system was suffering from a series of drawback. Since Whole system was to be maintained manual using pen and papers. The process of keeping, maintaining and searching the information was very tedious and time consuming. To overcome the problem faced in the manual system we provide this atomic system. Using this system customer as well as admin can easily maintain the ordered details.

2.2. Functionalities

2.2.1. Usual functionalities.

- Online registration for employee and customer
- View item menu.
- Manage cart by user.
- Order can be placed.
- Manage food items
- Manage Customer
- View various reports
- Order confirmation for employee

2.2.2. Distinct functionalities

- Delivery tracking status
- Order cancelation by customer (limited time)

2.3. User Characteristics

2.3.1. Customer Characteristics

- Login
- View Item Menu.
- Manage cart:
    - Add item into the cart.
    - Cancel cart item.
- Do Payment.
- Request for refund.
- Update Profile.

2.3.2. Admin Characteristics

- Login
- View order.
- Manage Food items:
    - Add food items.
    - Update food items.
    - Block Food items.
- Manage Customer:
    - View Customers.
    - Block Customers.
- Manage Delivery boy:
    - View Delivery boy details.
    - Block Delivery boy.
    - View Delivery boy report.
- Customer details report.

2.3.3 Delivery boy Characteristics

- Login.
- Delivery order options
- Order report details.
- Report of particular order details.

2.4. Software development process

- Spiral

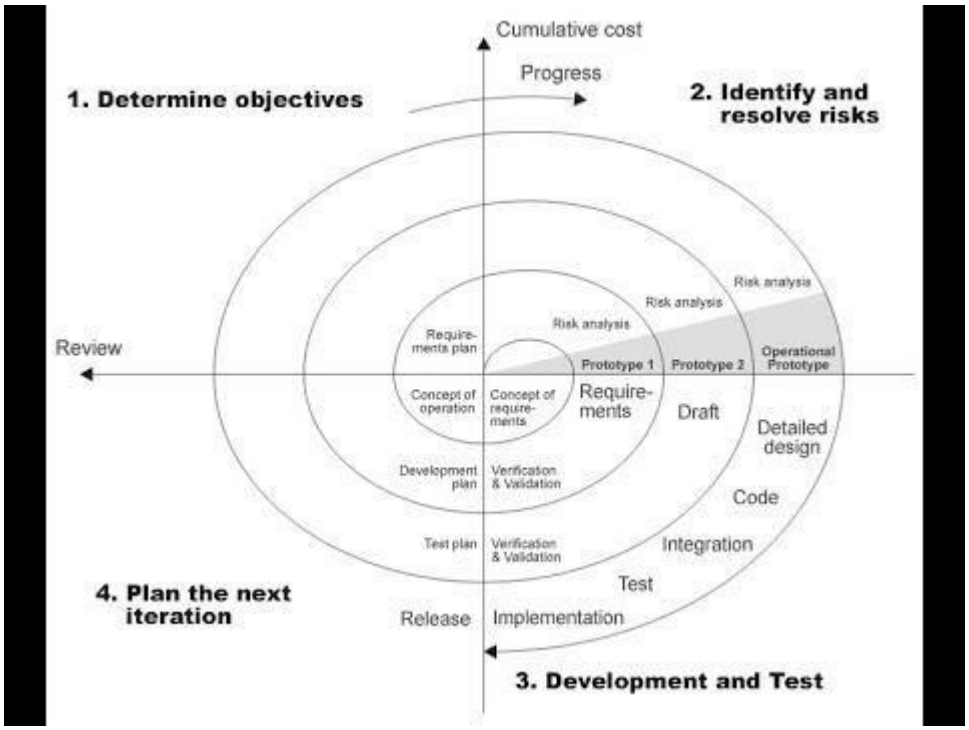

Figure 1. Spiral model

- If customer want to add new feature in the system then we will first be gathered requirement from the customer, then we design the feature means determine that how it will work and what action it will perform. Then we will implement it code and integrate the code into the main system then give that system to customer for verification and validation then if customer is satisfied then we will maintain the system at time interval.

3. Conceptual Diagram

3.1. Use case diagram

3.1.1. Customer use case diagram

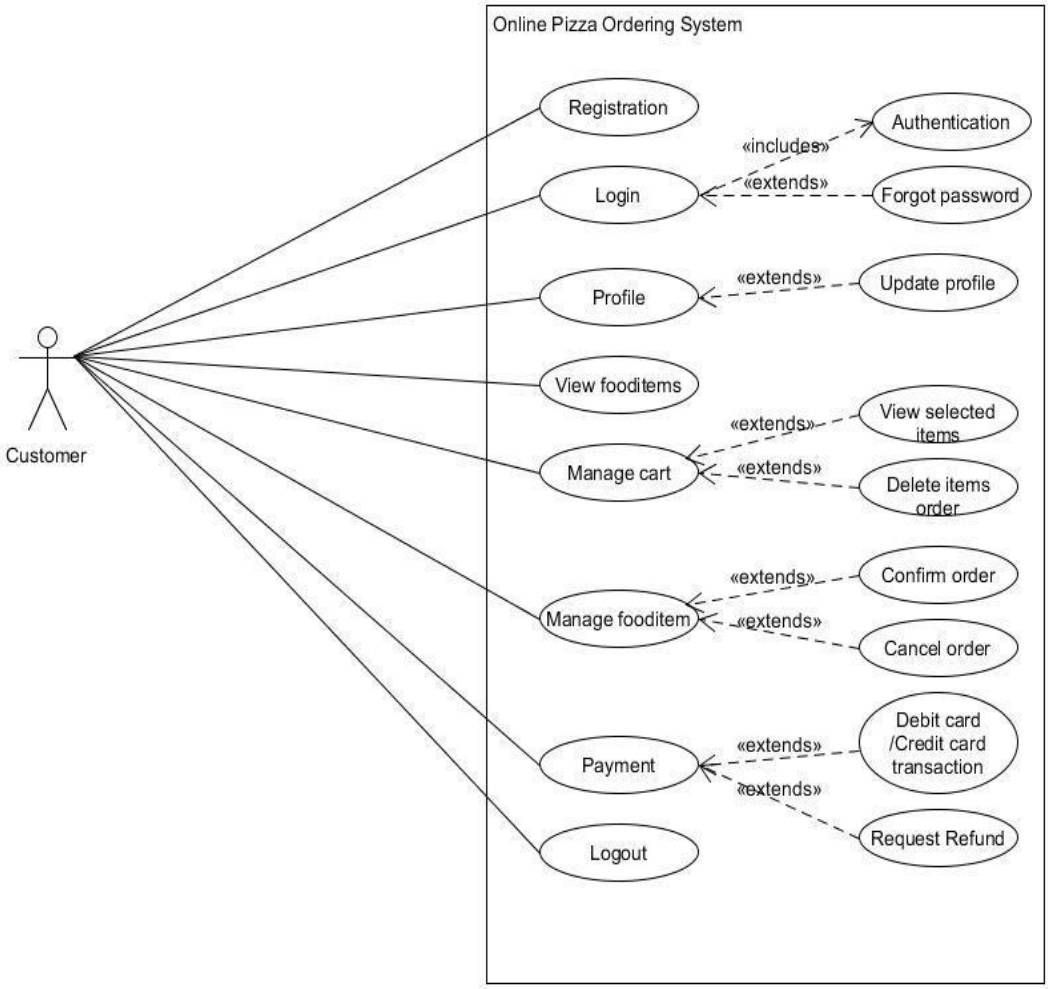

Figure 2. Customer use case diagram

3.1.2. Admin use case diagram

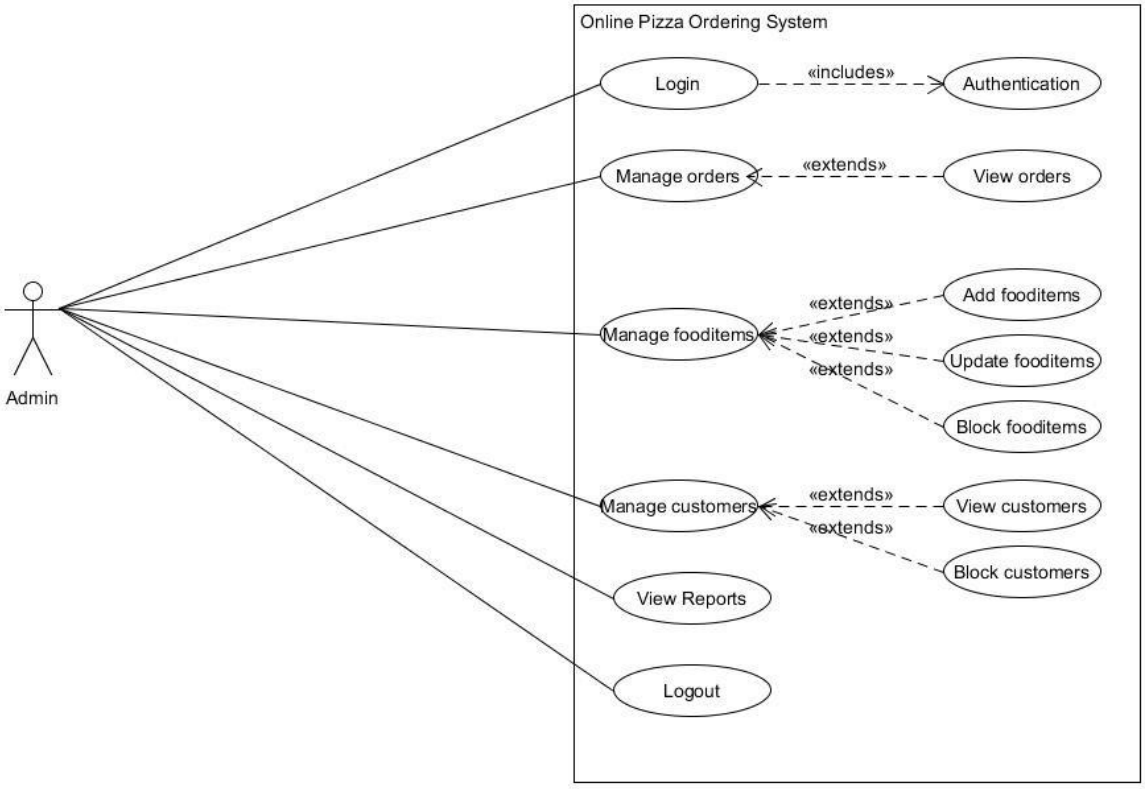

Figure 3. Admin use case diagram

3.1.3. Delivery boy use case diagram

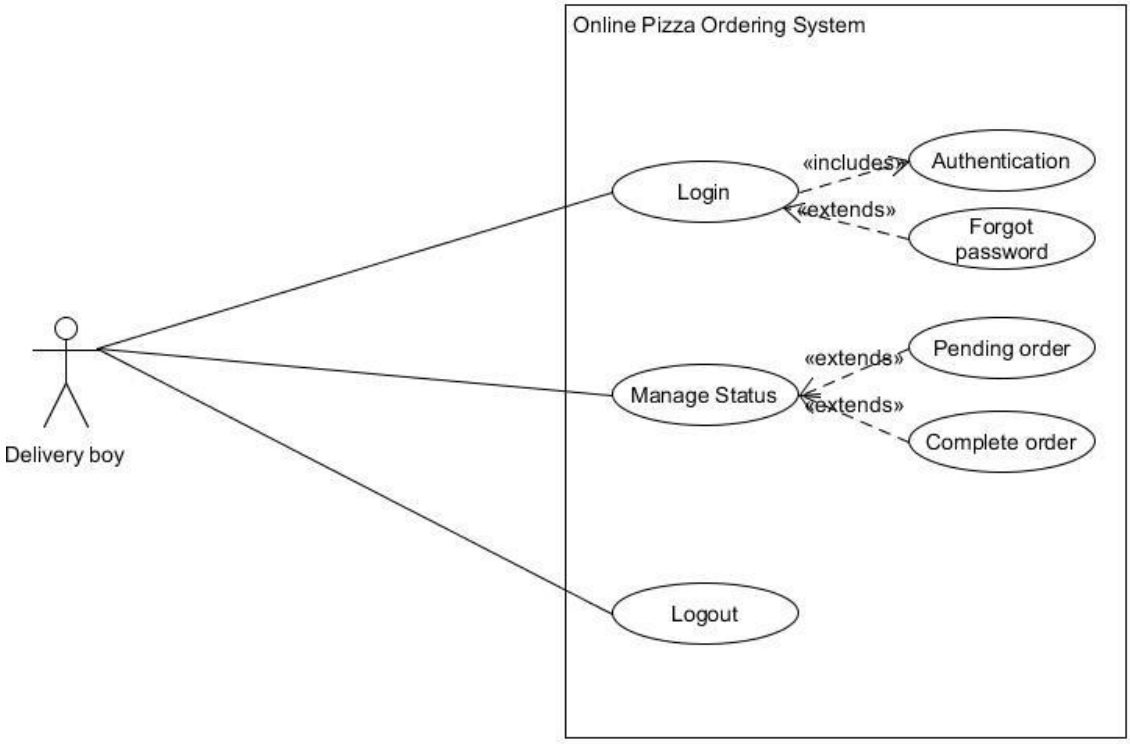

Figure 4. Delivery boy use case diagram

3.2. Activity diagram

3.2.1. Registration activity diagram

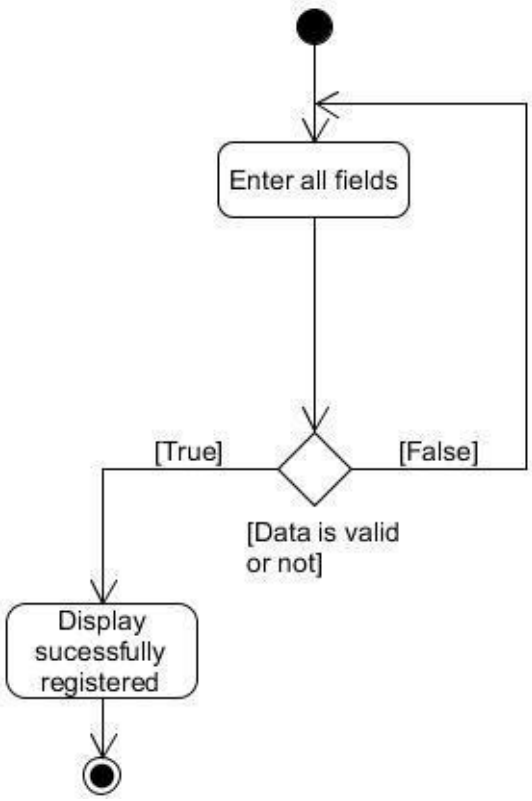

Figure 5. Registration activity diagram

3.2.2. Login activity diagram

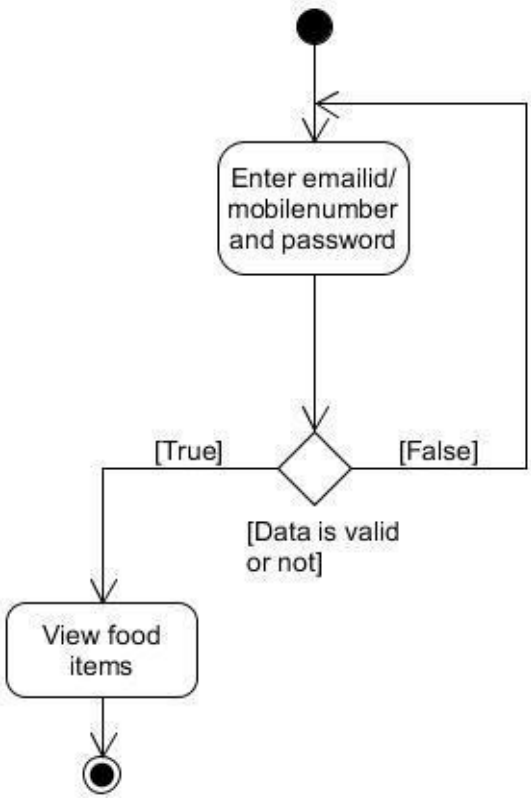

Figure 6. Login activity diagram

3.2.3. Profile update activity diagram

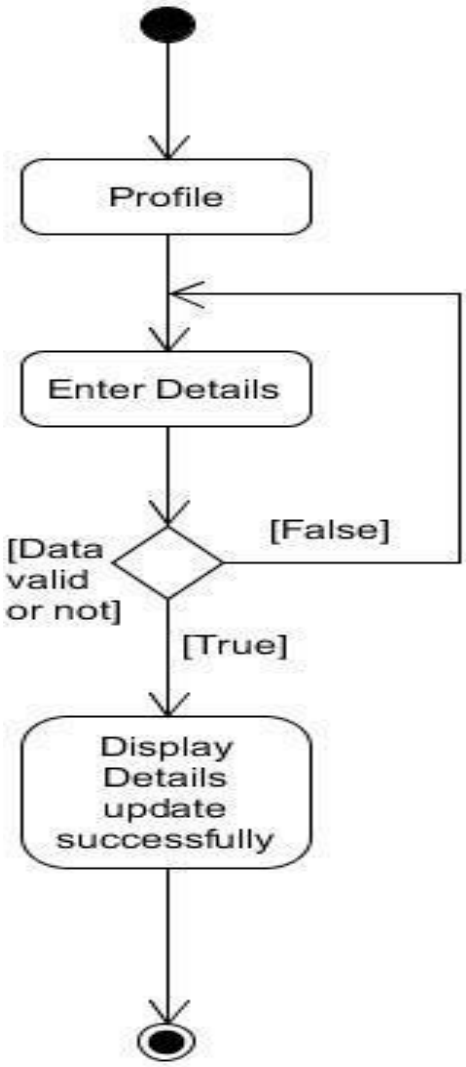

Figure 7. Profile updating activity diagram

3.2.4. Add to cart activity diagram

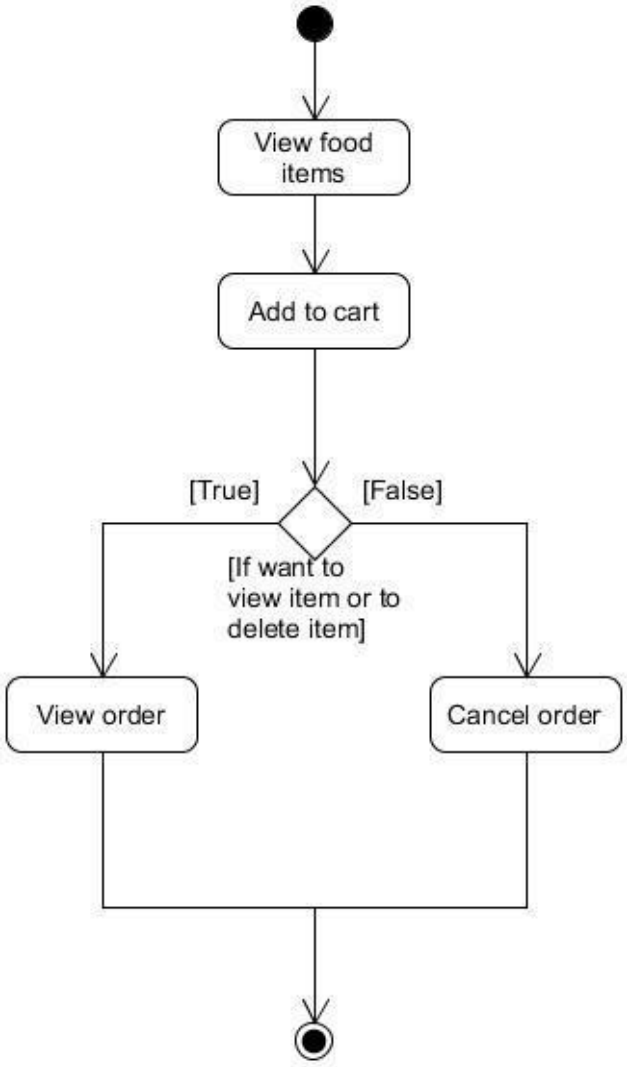

Figure 8. Add to cart activity diagram

3.2.5. Customer orders activitydiagram

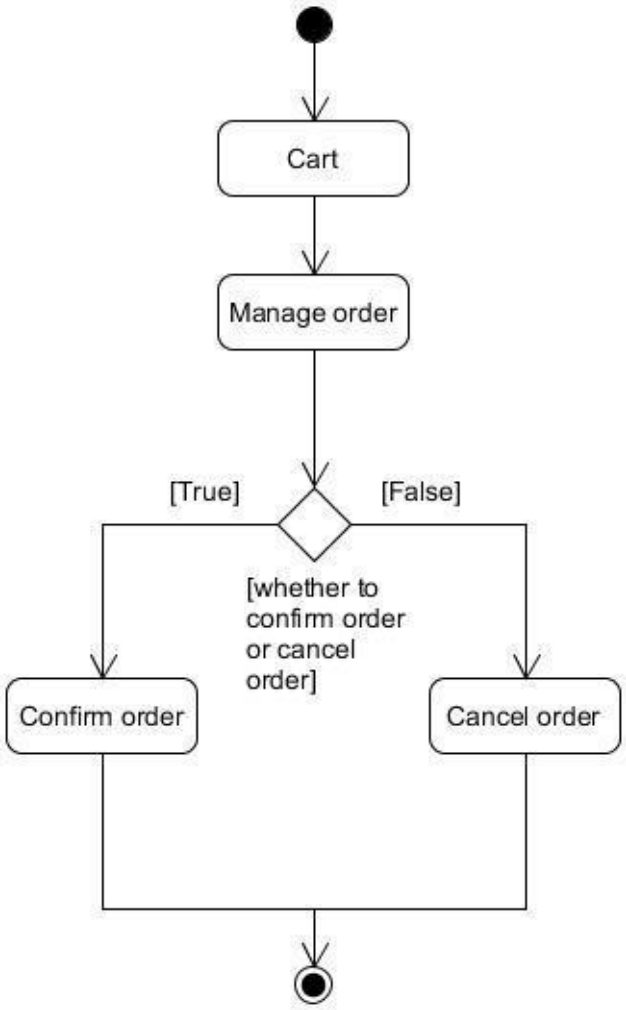

Figure 9. Customer order activity diagram

3.2.6. Add food item activity diagram

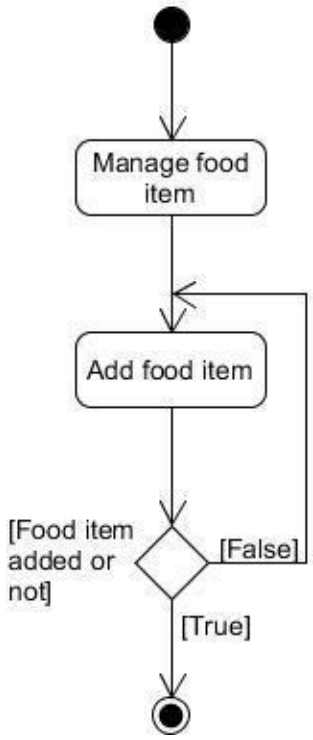

Figure 10. Add food item activity diagram

3.2.7. Update food item activity diagram

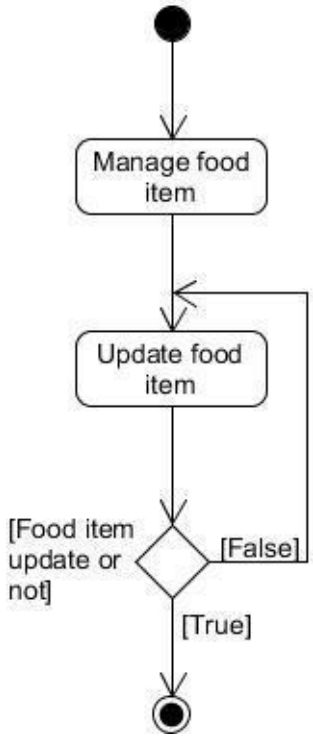

Figure 11. Update food item activity diagram

3.2.8. Delete food item activity diagram

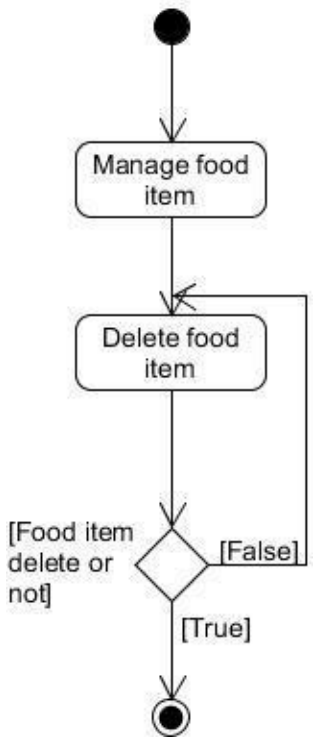

Figure 12. Delete food item activity diagram

3.2.9. View customers activity diagram

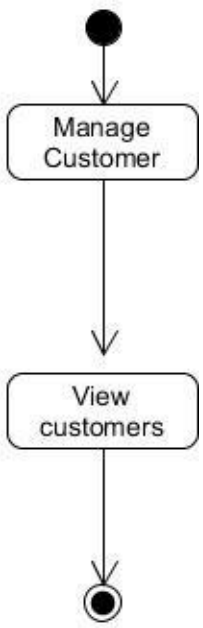

Figure 13. View customers activity diagram

3.2.10. Block customers activity diagram

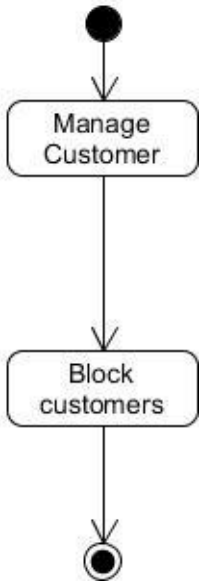

Figure 14. Block customers activity diagram

3.2.11. **Delivery boy order status activity diagram**

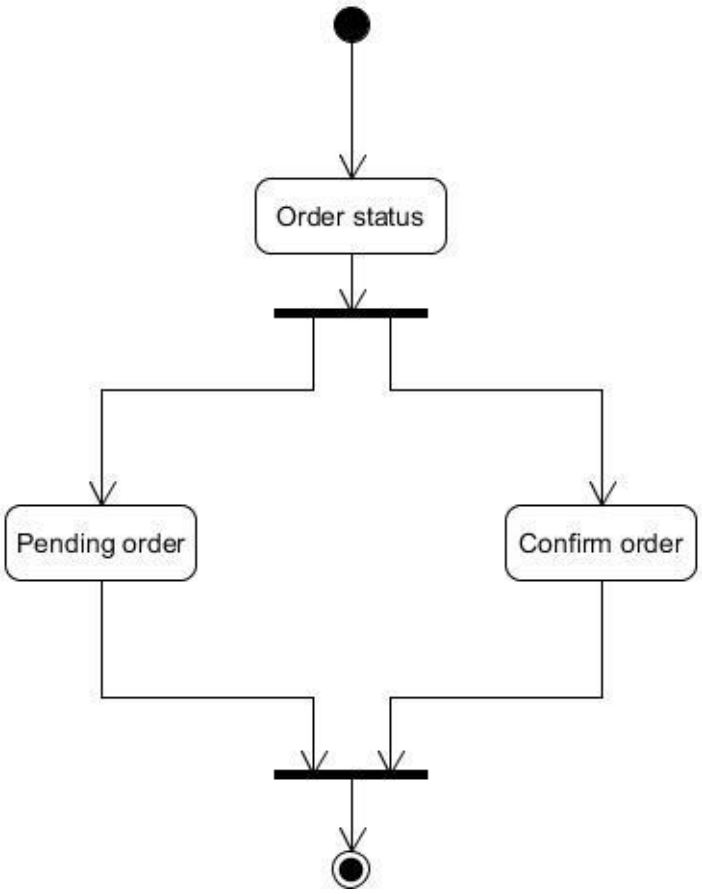

Figure 15. Delivery boy order status activity diagram

4. System Design

4.1. Data Dictionary, Integrity constraints

4.1.1. Customer master

No	Field	Datatype	constraints	Description
1	Customer_id	Int	Primary key	Store id of customer
2	Customer_name	varchar(30)	Notnull	Store name of customer
3	Customer_phonenum	varchar(10)	Notnull	Store contact number of customer
4	Customer_email	varchar(50)	Notnull	Store email address of customer
5	Customer_gender	varchar(1)	Notnull	Store gender of customer
6	Customer_city	varchar(15)	Notnull	Store city of customer
7	Customer_address	varchar(100)	Notnull	Store address of customer
8	Customer_password	varchar(20)	Notnull	Store password of customer
9	Customer_status	int(1)	Notnull	Store status account delete or not

Table 1 Customer_master

4.1.2. Delivery_boy_master

No	Field	Datatype	Constraint	Description
1	Delivery_boy_id	Int	Primary key	Store id of Delivery boy
2	Delivery_boy_name	varchar(30)	Notnull	Store name of Delivery boy
3	Delivery_boy_age	Int	Notnull	Store age of Delivery boy
4	Delivery _boy_Phonenum	varchar(10)	Notnull	Store contact of Delivery boy
5	Delivery_boy_gender	varchar(1)	Notnull	Store gender of Delivery boy
6	Delivery _boy_address	varchar(100)	Notnull	Store address of Delivery boy
7	Delivery_boy_status	int(1)	Notnull	Store status of Delivery boy

Table 2 Delivery_boy_master

4.1.3. Category

No	Field	Datatype	Constraint	Description
1	Category_id	Int	Primary key	Store id of category of pizza
2	Category name	varchar(20)	Notnull	Store name of category of pizza
3	Category status	Int	Notnull	Store status of category

Table 3 Category

4.1.4. Toppings_master

No	Field	Datatype	Constraint	Description
1	Topping_id	Int	Primary key	Store id of topping
2	Topping_name	varchar(15)	Notnull	Store name of topping
3	Topping_price	varchar(10)	Notnull	Store price of topping
4	Topping_status	int(1)	Notnull	Store status of topping

Table 4 Topping_master

4.1.5. Drink_master

No	Field	Datatype	Constraint	Description
1	Drink_id	Int	Primary key	Store id for drink
2	Drink_name	varchar(20)	Notnull	Store name of drink
3	Drink_category	varchar(4)	Notnull	Store category of drink
4	Drink_price	decimal(3,2)	Notnull	Store price of drink
5	Drink_description	varchar(30)	Notnull	Store description of drink
6	Drink_status	int(1)	Notnull	Store status of drink

Table 5 Drink_master

4.1.6. Food_master

No	Field	Datatype	Constraint	Description
1	Food_id	int	Primary key	Store id of food item
2	Category_id	int	Foreign key	Store id of category of food item
3	Food_name	varchar(25)	Notnull	Store name of food item
4	Food_size	varchar(1)	Notnull	Store size of food item
5	Food_description	varchar(50)	Notnull	Store description of food item
6	Food_price	decimal(4,2)	Notnull	Store price of food item
7	Food_status	int(1)	Notnull	Store status of food item

Table 6 Food_master

4.1.7. **Customer_order**

No	Fields	Datatype	Constraint	Description
1	Customer_order_id	int	Primary key	Store id of order
2	Customer_id	int	Foreign key	Store id of customer
3	Delivery_boy_id	int	Foreign key	Store id of Delivery boy
4	Drink_id	int	Foreign key	Store id of drink
5	Food_id	int	Foreign key	Store id of food item
6	Topping_id	int	Foreign key	Store id of topping
7	Item_quantity	int	Notnull	Store quantity of fooditem
8	Total_price_sum	decimal(4,2)	Notnull	Store total price of order
9	Order_status	int	Notnull	Store status of order

Table 7 Customer_order

4.1.8. **Bill_master**

No	Fields	Datatype	Constraint	Description
1	Bill_id	int	Primary key	Store id of bill
2	Customer_order_id	int	Foreign key	Store id of order
3	Order_date	date	Notnull	Store date of purchase
4	Order_time	time	Notnull	Store time of purchase
5	Payment_type	varchar(10)	Notnull	Store type of payment
6	Total_amount	decimal(5,2)	Notnull	Store total amount of order
7	Order_address	varchar(50)	Notnull	Store address of customer
8	Bill_Status	int	Notnull	Store status of bill

Table 8 Bill_master

4.1.9. **Review_master**

No	Fields	Datatype	Constraint	Description
1	Review_id	int	Primary key	Store id of review
2	Food_id	int	Foreign key	Store id of fooditem
3	Drink_id	int	Foreign key	Store id of Drink
4	Ratings	varchar(5)	Notnull	Store rating of fooditem
5	Review_comment	varchar(50)	Notnull	Store comment of customer
6	Review_Status	int	Notnull	Store status of bill

Table 9 Review_master

4.1.9. Add_to_cart

No	Fields	Datatype	Constraint	Description
1	Cart_id	int	Primary key	Store id of cartitems
2	Customer_id	int	Foreign key	Store id of Customer
3	Product_name	varchar(20)	Foreign key	Store name of product
4	Product_photo	varchar(200)	Notnull	Store photoname of product
5	Product_size	varchar(10)	Notnull	Store size of product
6	Quantity	int	Notnull	Store quantity of product
7	toppings	Varchar(30)	Null	Store name of toppings
8	Product_prise	Decimal(7,2)	Notnull	Store price of products
9	Total_price	Decimal(7,2)	Notnull	Store total price of products

Table 10 Add _to_ cart

4.2 User interface design

4.2.1. Vistor page

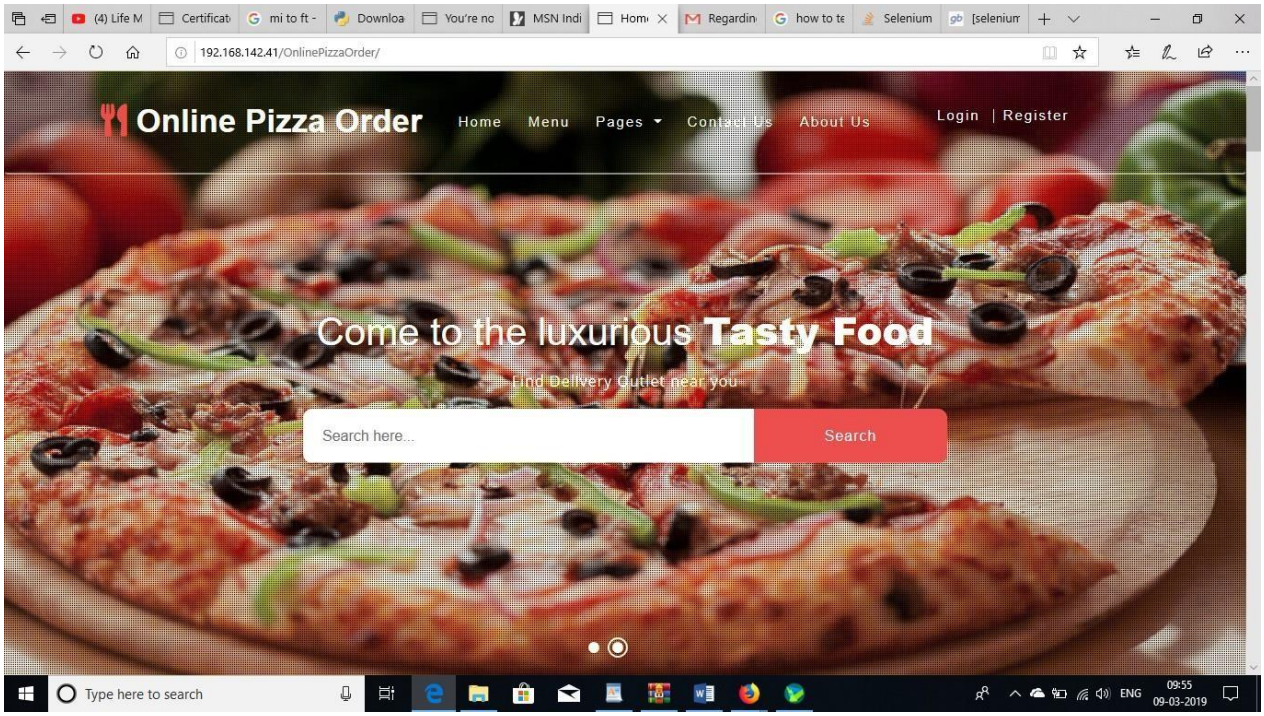

Figure 16. Visitor page

4.2.2. Visitor menu

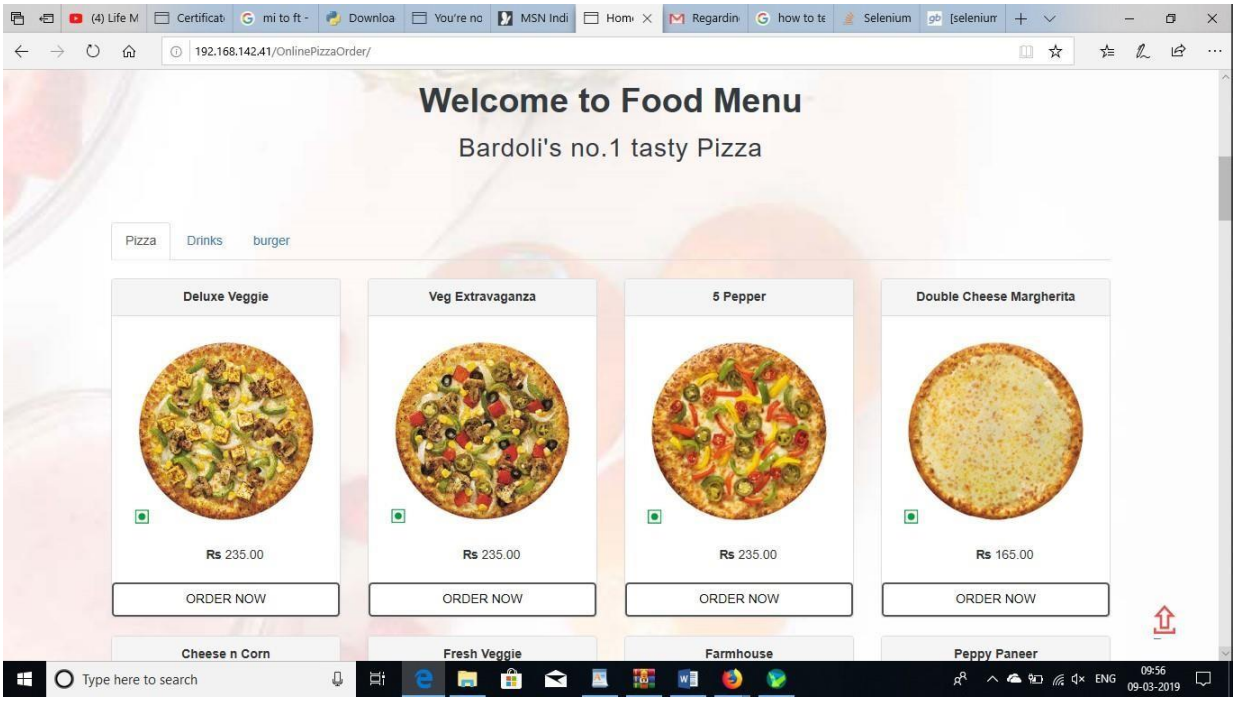

Figure 17.Visitor menu

4.2.3. Login page

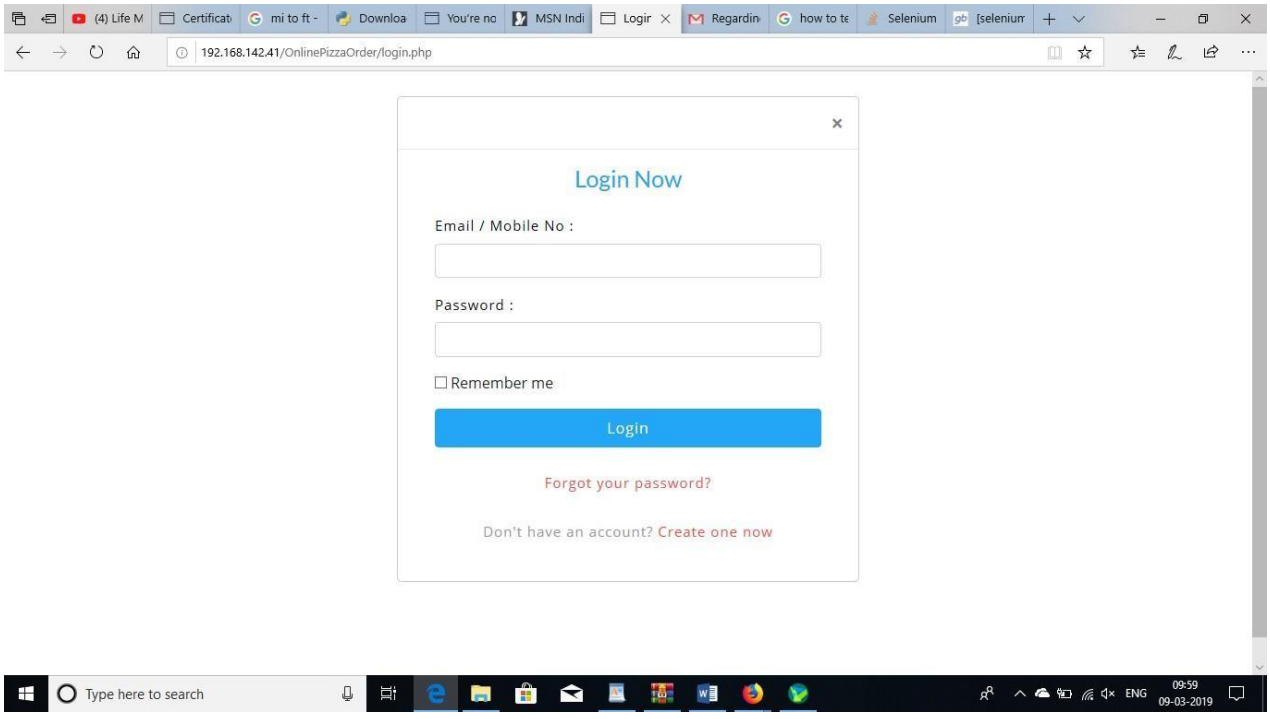

Figure 18. Login page

4.2.4. Registration page

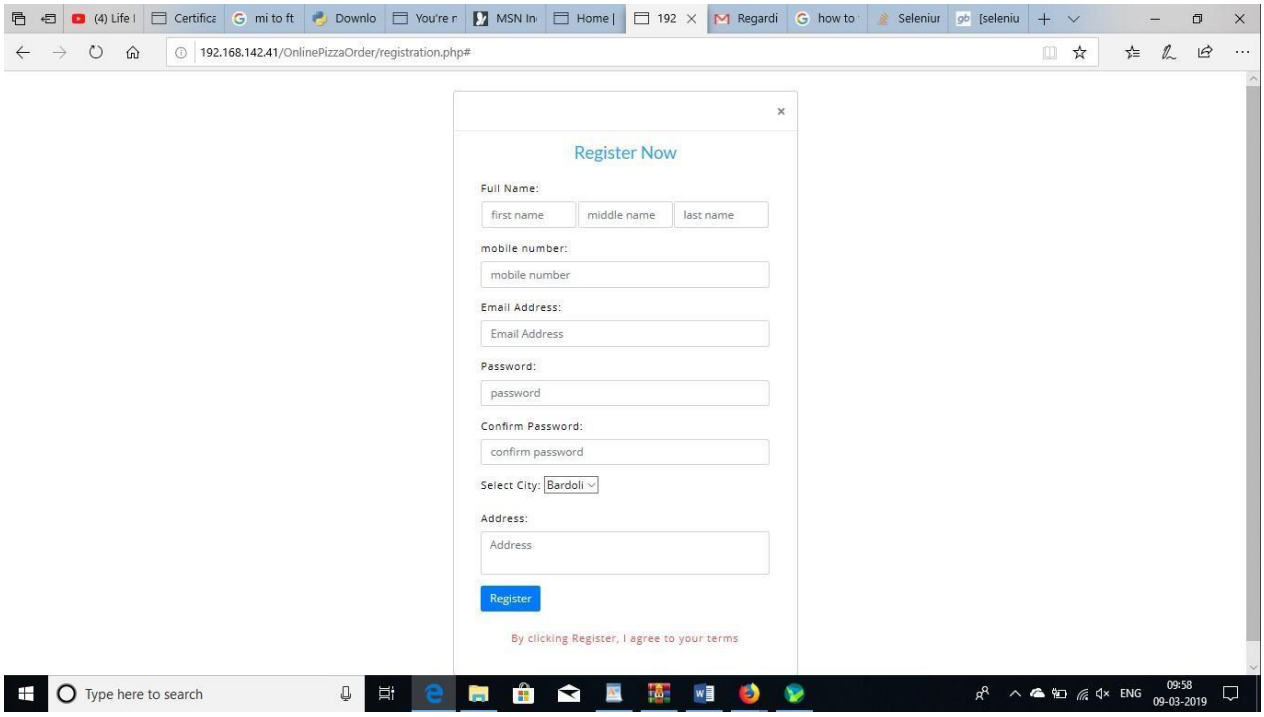

Figure 19. Registration page

4.2.5. Customer side menu

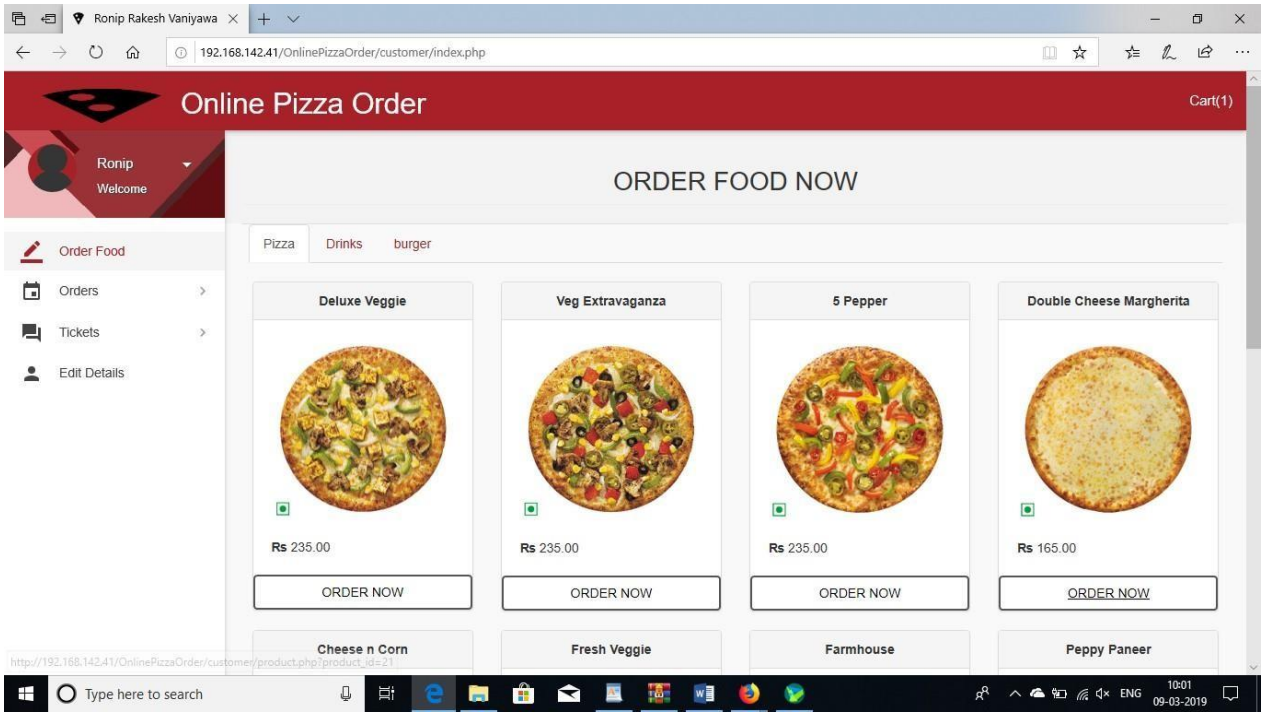

Figure 20. Customer side menu

4.2.6. Customer product details

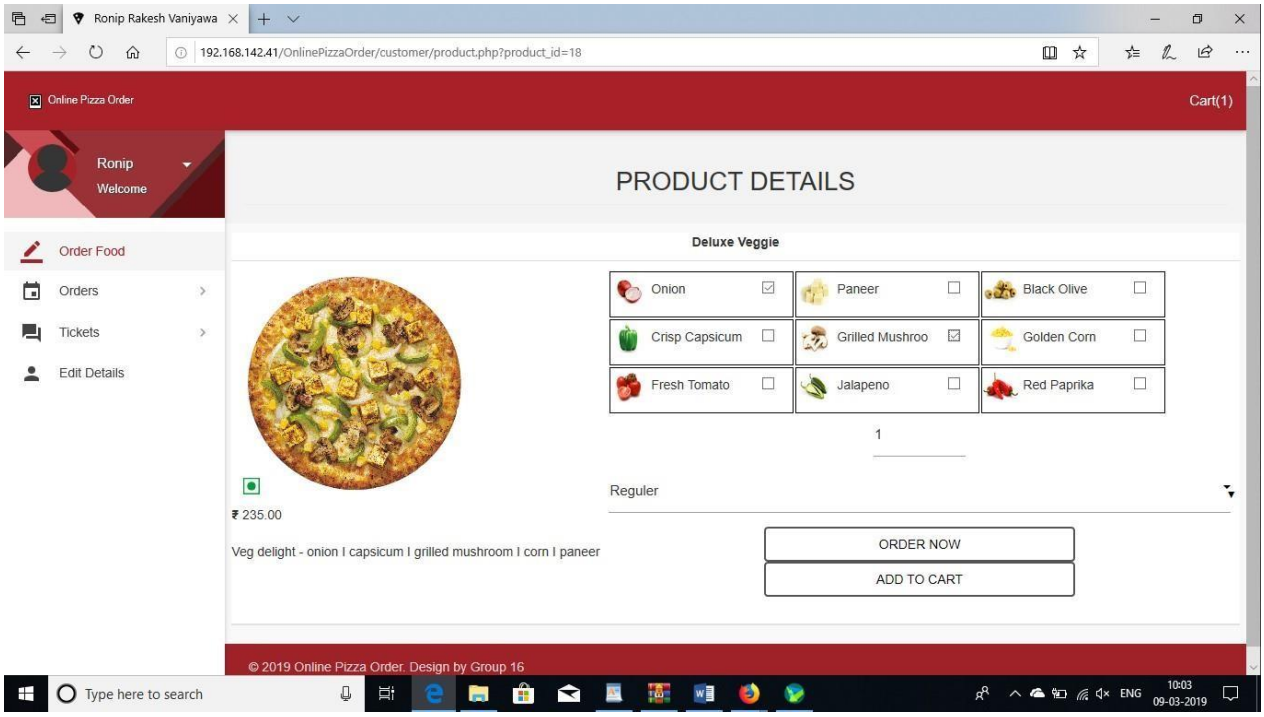

Figure 21. Customer product detail

4.2.7. Add to cart

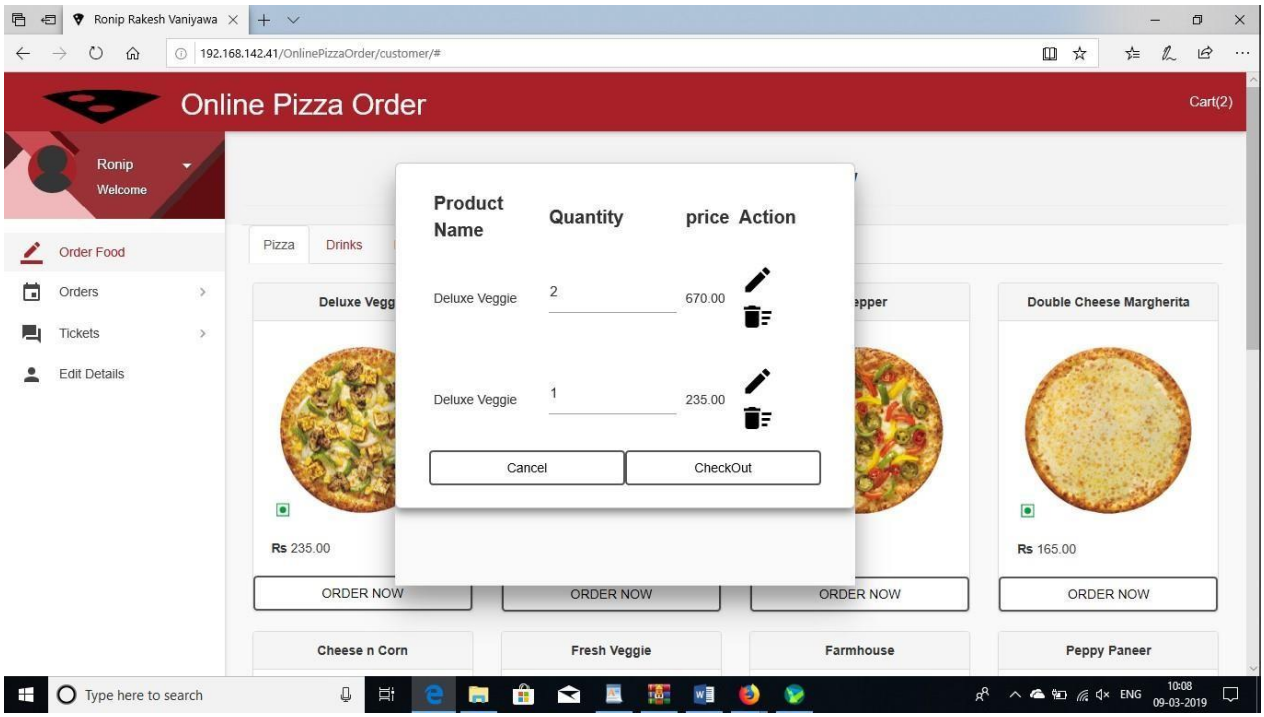

Figure 22.Add to cart

4.2.8. Customer bill generation

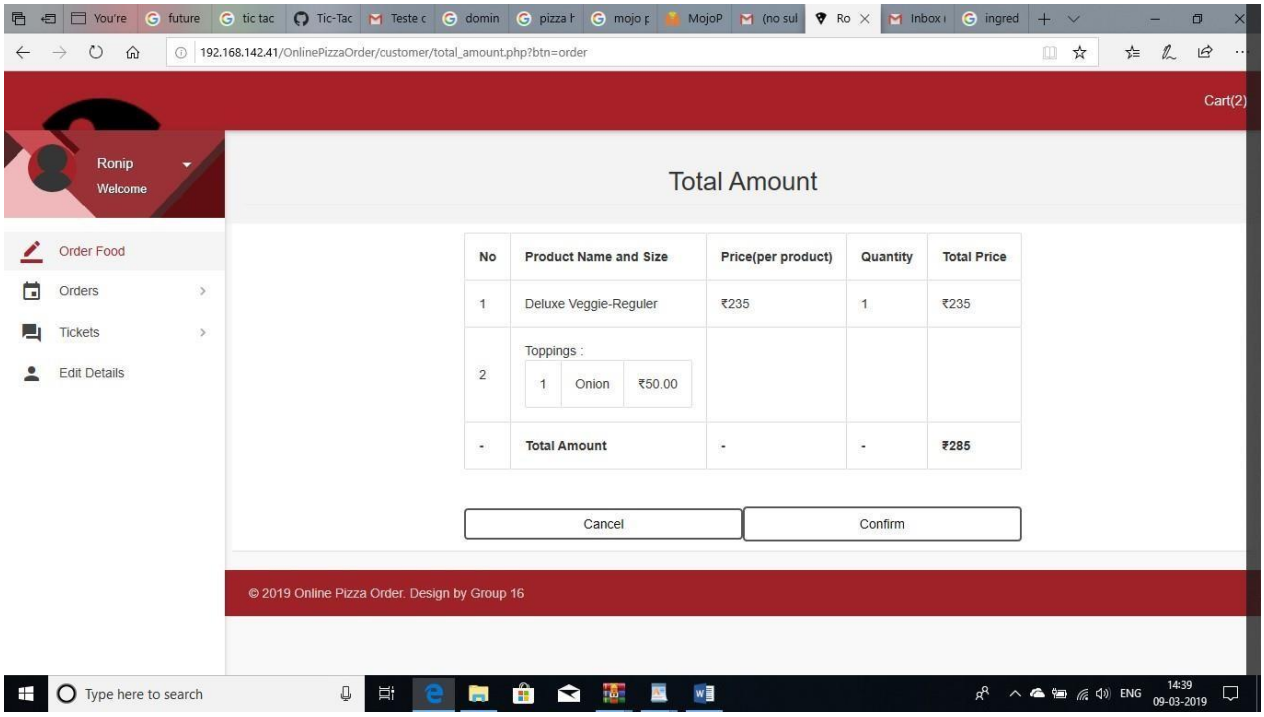

Figure 23.Customer bill generation

4.2.9. Admin Menu

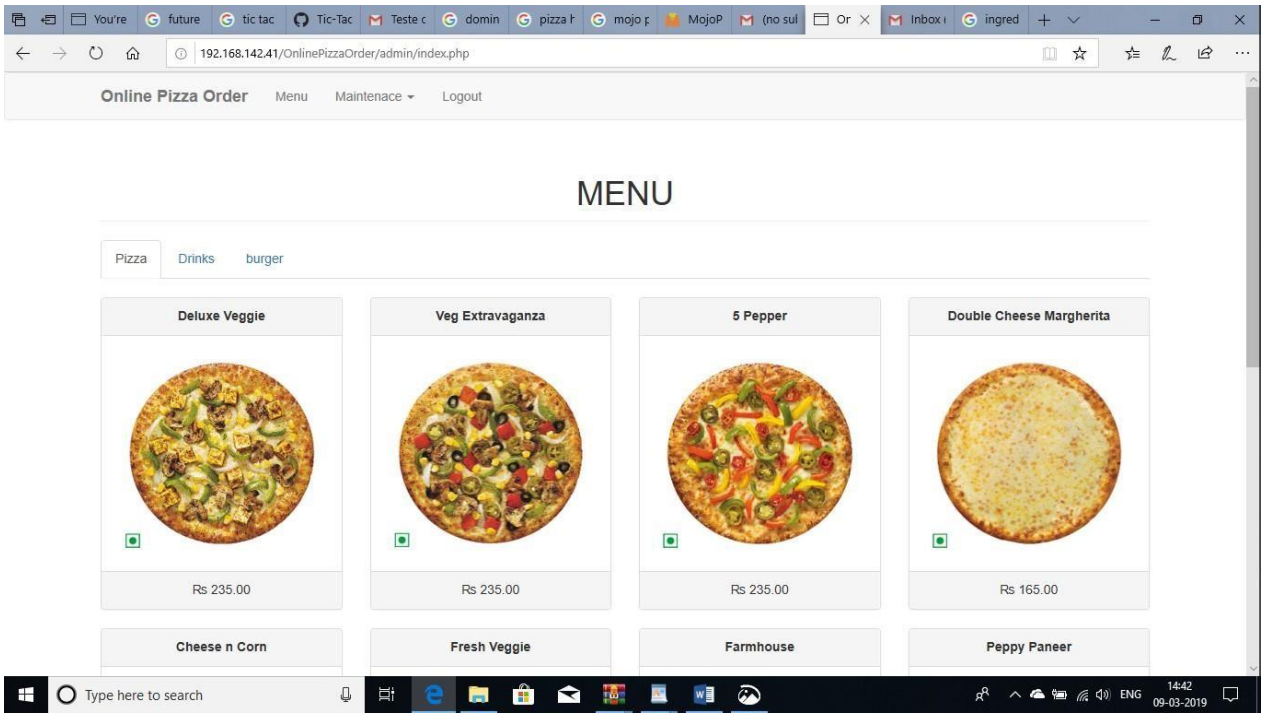

Figure 24. Admin menu

4.2.10. Admin add product

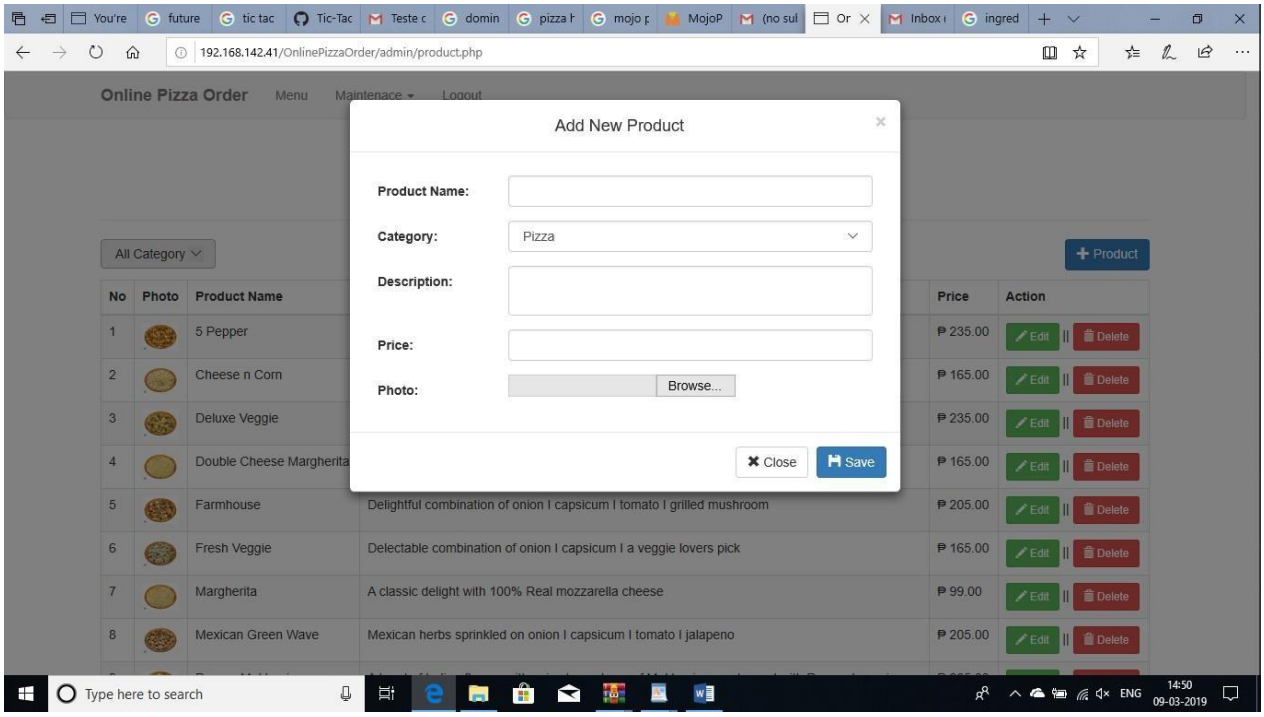

Figure 25. Admin add product

4.2.11. Admin add toppings

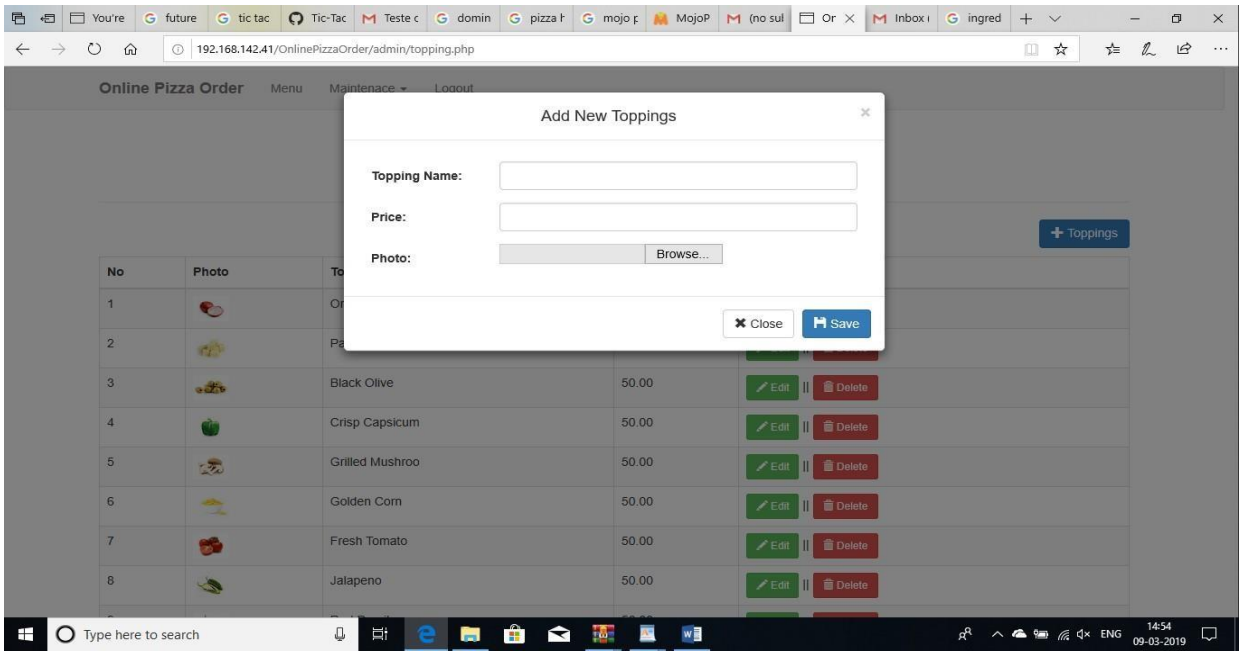

Figure 26. Admin add topping

5. Testing

a. Test Cases

1. Registration test case

Sr.no	Description	Input	Expected Result	Actual Result	Test Results
1	Null entry in required field.	Null input in all fileds.	Error message will be Fields are empty.	Error message will be Field are empty.	Pass
2	Enter invalid email id	Parth@@gmail.com	Error message invalid email format	Error message Invalid email format	Pass
3	Enter password & confirm password not match	Password='**********'confirm password='*********'	Error message password and confirm password do not match.	Error message password and confirm password do not match.	Pass

4	Enter mobile number	89******41	Error message invalid mobile no. Enter 10 digit number only.	Error message invalid mobile no.Enter 10 digit number only.	Pass
5	select City	Null .	Error message no city has not been selected.	Error message no city has not been selected.	Pass
6	Enter address	395009,surat,adajan.	Error message no city has not been selected.	Error message no city has not been selected.	Pass

Table 8 Registration test case

2. Login test case

Sr no.	Description	Input	Expected Results	Actual Results	Test Results
1	Enter empty details	Email=null password=null	Error message	Error message	Pass
2	Wrong entry of details	Email='**********'	Error message mail and password is invalid	Username and password is invalid	Pass
3	Enter valid username and password	Email='**********@gmail.com' password='**********'	Navigate to homepage	Navigate to homepage	Pass

Table 9 Login test case

3. Forgot password test case

Sr no.	Description	Input	Expected Results	Actual Results	Test Results
1	Enter invalid or not exist username	username='r*********@gmail.com'	Error message username doed not exist	Error message username does not exist	Pass
2	Enter valid username	username='P**********@gmail.com'	Successfully send new password to registered email	Successfully new password has been sent	Pass

Table 10 Forgot password test case

4. Customer profile test case

Sr no.	Description	Input	Expected Results	Actual Results	Test Results
1	User click on Profile	profile	Option :1 see profile 2 Update profile	Option :1see profile 2update profile	Pass
2	Click on profile to see	See profile	Details of user	Details of user	Pass
3	Update profile	Update profile	Change details of user .	Change details of users	Pass

Table 11 Customer Profile test case

5. Manage food item test case

Sr no.	Description	Input	Expected Results	Actual Results	Test Results
1	Enter empty details	Null	Error message please enter all details	Error message please enter all details	Pass
2	Add food name, size, price, category, description.	name='pizza'size='m'price='250 'category='cheese burst'	Added succesfully	Added succesfully	Pass
3	Update food name, size, price, category, description.	name='pizza',size='L'price='250'categ ory ='cheeseburst'.updatedsize	Updated succesfully	Updated succesfully	Pass
4	Delete food name, size, price, category, description.	Delete id='1'	Deleted succesfully	Deleted succesfully	Pass

Table 12 Manage food item test case

b. Testing Reports

1. Login testcase

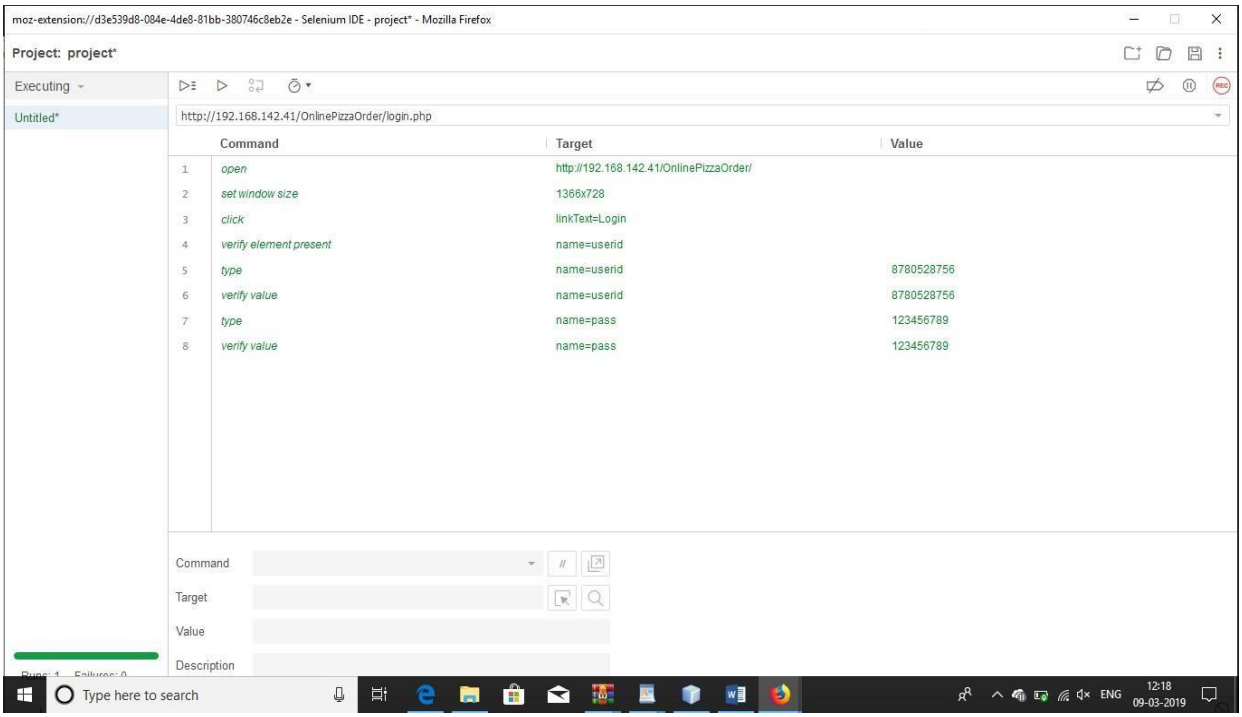

Figure 27. Login testcase

2. Login testcase log

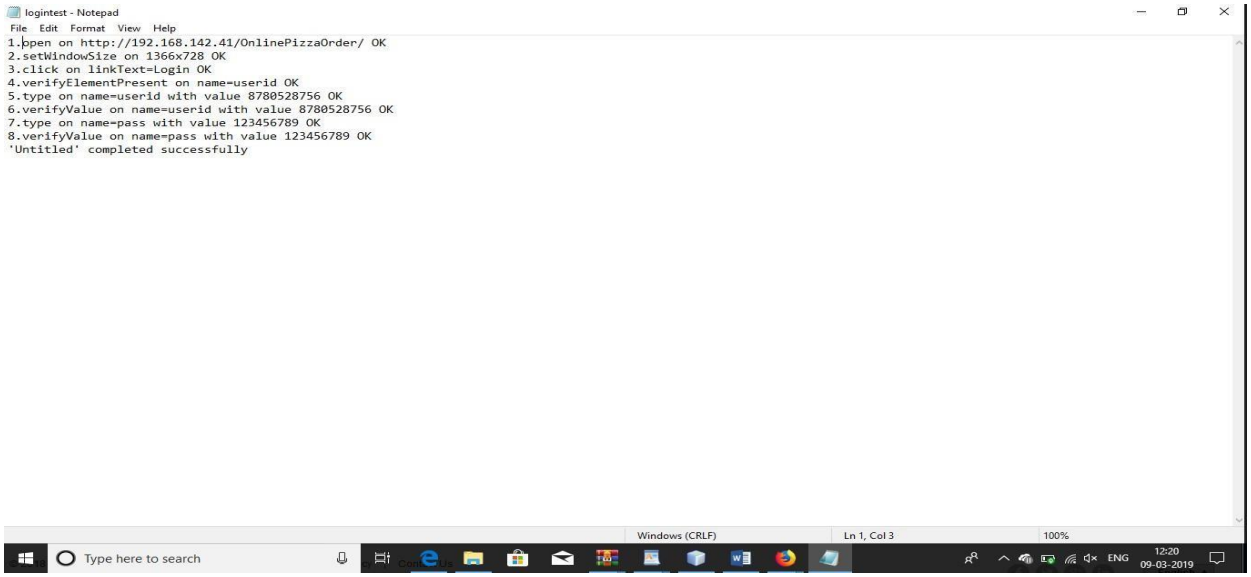

Figure 28. Login testcase logs

3. Register testcase

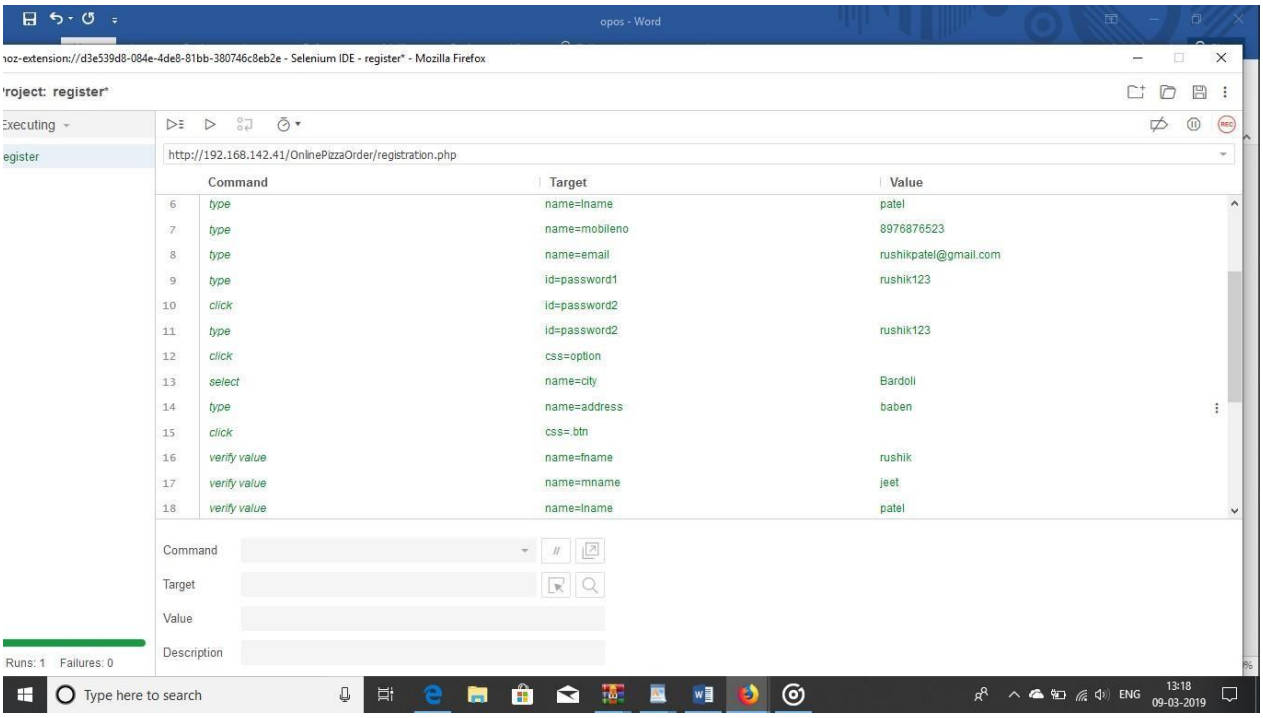

Figure 29. Register testcase

4. Register testcase log

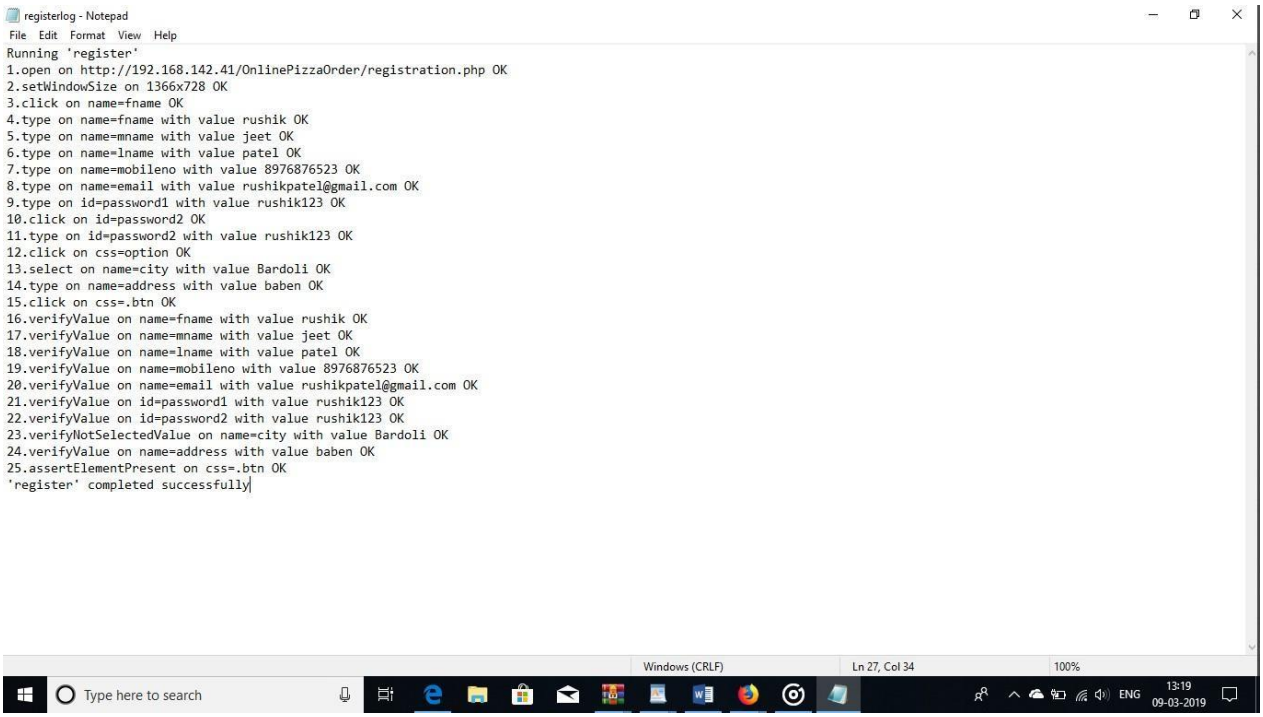

Figure 30. Register testcase log

5. Review testcase

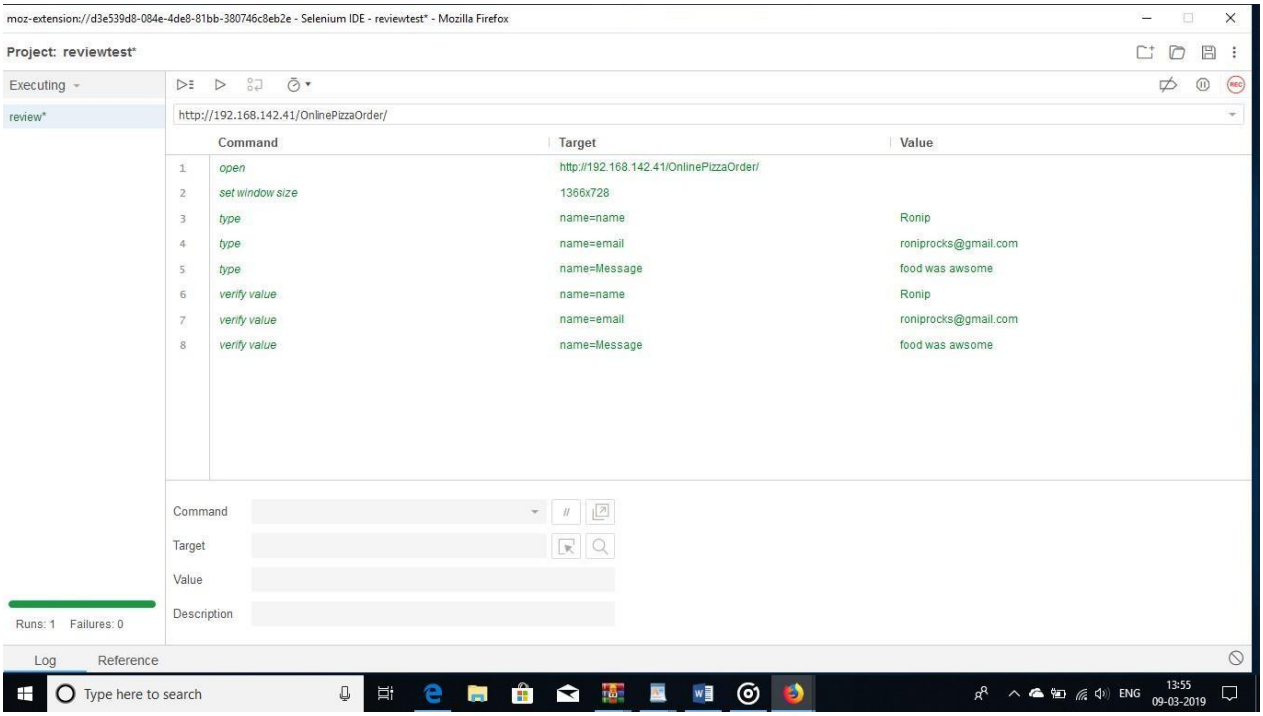

Figure 31. Review testcase

6. Review testcase log

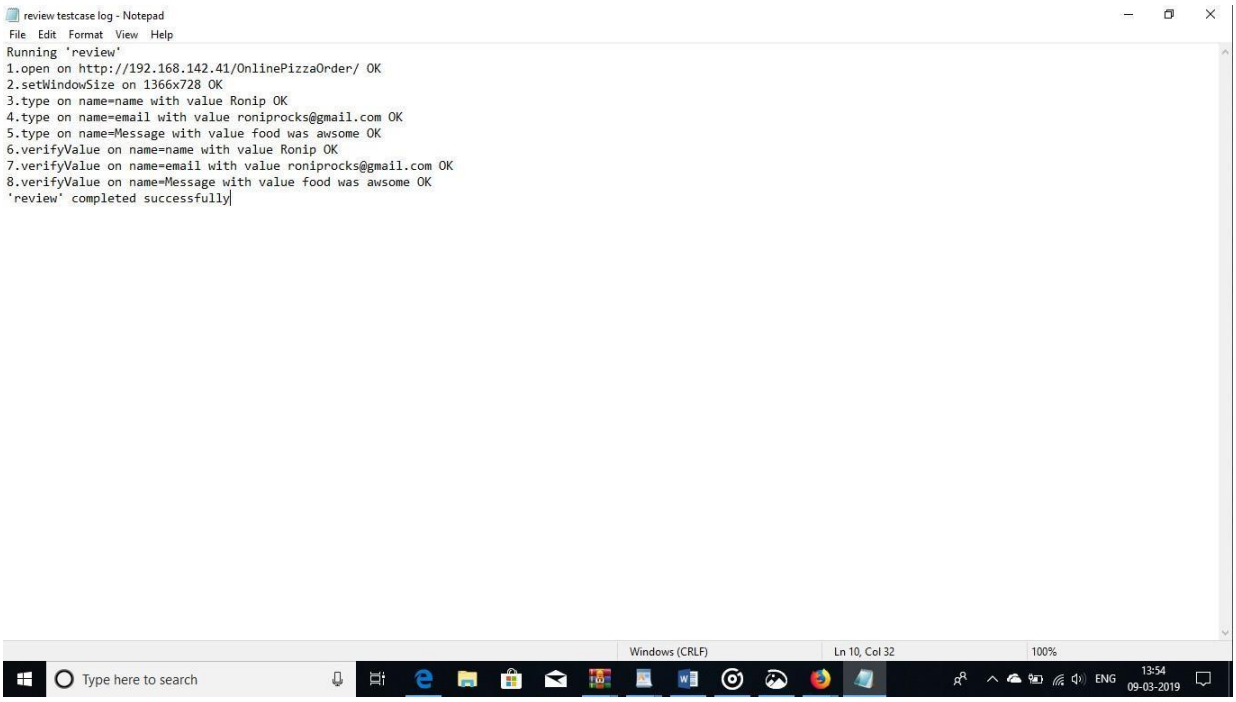

Figure 32. Review testcase log

6. Future scope and further enhancement of the Project

- Mobile application for Online Pizza Ordering system.
- To build Delivery module for this system.

7. Learning during Project Work, i.e. "Experience of Journey during Project Duration"

- To establish coordination between project partners.
- New way of coding we learn.
- Learn testing technique in project
- To solve problem, arise in coding by discussion and by applying new technique.

6. References

8.1 Web References

- https://pizzaonline.dominos.co.in/?
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8.2 Book References

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- Kendall & Kendall, System Analysis and Design, PHI- Ninth Edition