TAIBAH UNIVERSITY جامعة طيبة

"Online Pizza Order System"

INTRODUCTION TO SOFTWARE ENGINEERING CS281

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SECTION: M1

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REPORT

In the beginning, we looked at the requirements of the project, discussed it, and divided the tasks among each other into days. Every day, we will do a specific thing to come up with the best project without putting pressure on ourselves with time. Then we started executing the tasks and we cooperated in implementing them among ourselves. We started by merging them into one file, then we formatted the whole file, explained to each other how we did our parts, and finally went over what we wrote and compared it to the requirements of the project.

INTRODUCTION

Mobile applications have transformed the food delivery industry, particularly online pizza order systems. These apps offer a user-friendly interface, customization options, real-time tracking, and secure payment methods, making the ordering process more seamless and enjoyable.

PROBLEM DEFINITION

In previous years, it was noticed that the customer takes a long time to wait for the pizza order due to the variety of orders and the different ingredients. the common way to order pizza was by attending to the customer at the branch, and it developed into a phone call. but this method leads to problems in ordering and not responding to some communications, which leads to the customer canceling the order and a lack of sales for the pizzeria, and at present technology has developed, so we can create a program to facilitate ordering and reduce crowding, (an application that enables customers to order pizza).

DEFINITION REQUIREMENTS

FUNCTIONAL

1. **Customer**
   - The customer can create an account using his mobile number and e-mail to be able to log in later.
   - The customer can view the restaurant's menu and order from it, or he can order a pizza of his own making.
   - He can view his request and add to it or remove it from it.
   - He can choose the method of receipt the order (such as picking up from the branch or delivery).
   - He can pay with the available methods (such as payment by mada, visa, cash, or Tabby and Tamara service).
   - He can also evaluate the request.
   - He can re-order a previously ordered one.
   - He can log out.

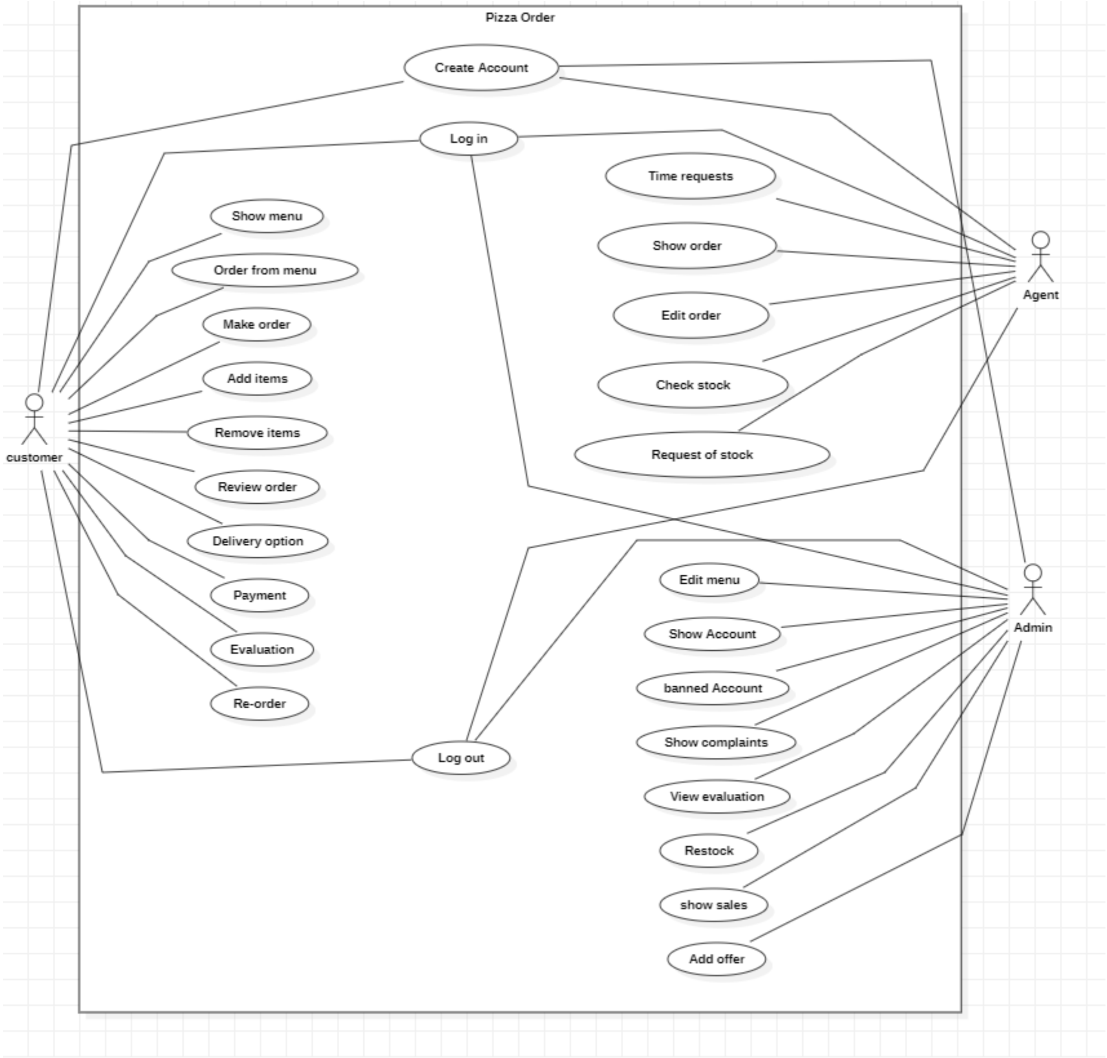
2. **Agent**
   - The agent can create an account using his mobile number and e-mail to be able to log in later.
   - It enables him to specify the times for receipting orders.
   - He can view and modify customer orders if the customer requests a modification after ordering.
   - The Agent can check the available stock and order stock.
   - He can log out.

3. **Administrator**
   - The administrator can create an account using his mobile number and e-mail to be able to log in later.
   - He can modify the restaurant's menu.
   - He can view a user's account and can also disable an account.
   - He can review complaints and ratings.
   - He can order new stock.
   - He can see the sales.
   - He can make discounts and offers.
   - He can log out.

NONFUNCTIONAL:

Nonfunctional requirement	Explanation
SECURITY	System will be secure against any hacking will happen on the system
AVAILABILITY	System must be available all the time.
EFFICIENCY	System is response to user request as fast as it can.
RELIABILITY	The software framework reliably and flawlessly executes the listed functions.
USABILITY	The simplicity at which a user can communicate with a machine to read, run, plan inputs, and interpret outputs.
FLEXIBILITY	The simplicity with which the programmer can be configured to suit multiple settings, setups, and user specifications.

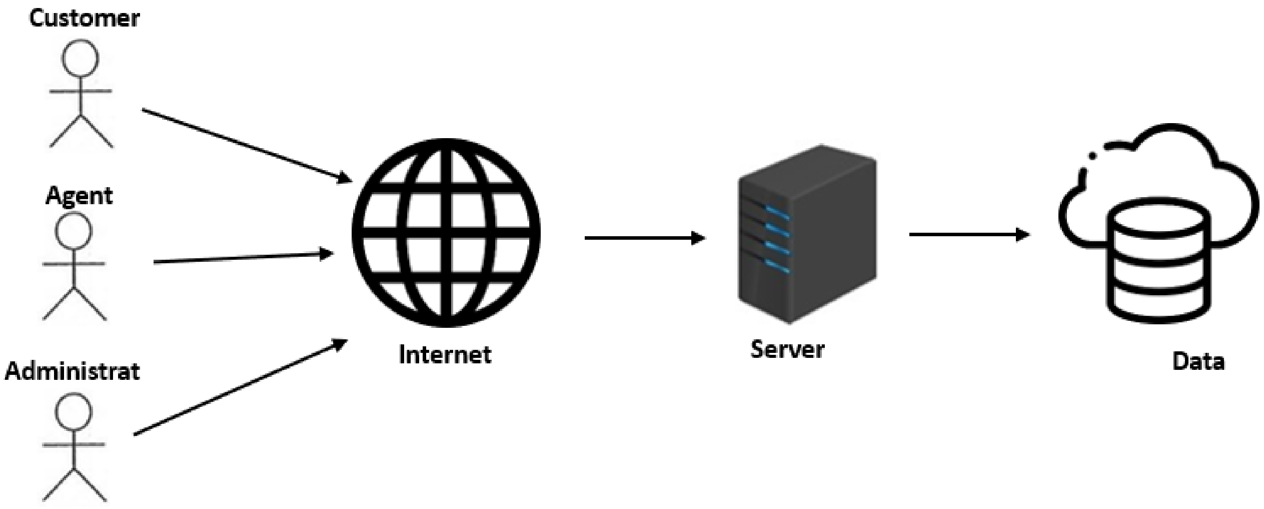
USE CASE DIAGRAM



Description:

In this drawing (use case diagram) we created three actors and placed each actor functional on its own and connected them to each other.

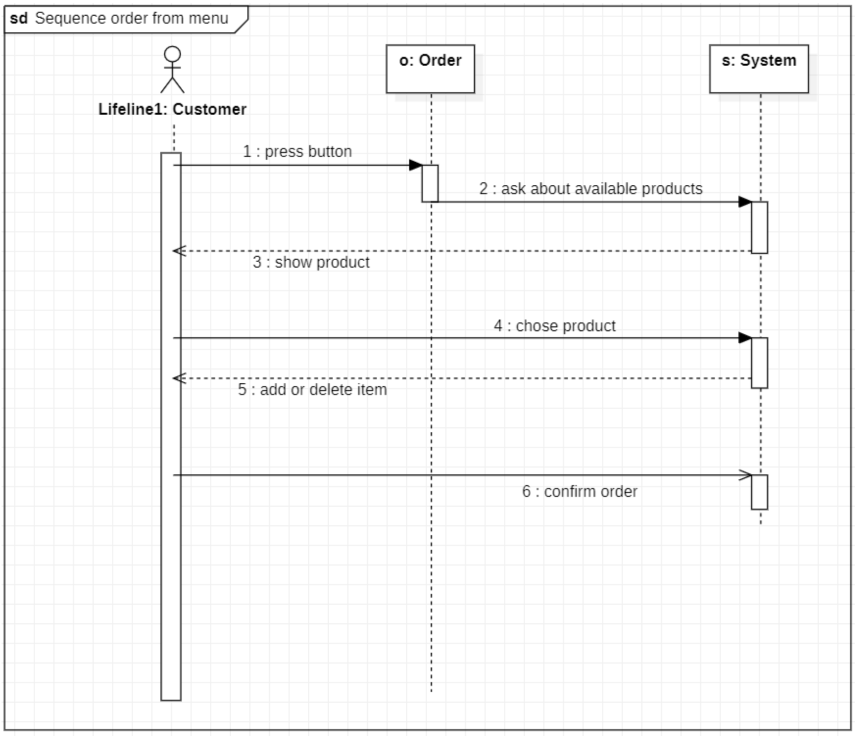
ARCHITECTURE DESIGN



Description:

In this drawing (architecture design), we show that the actors are connected to the Internet, then to the server (application), and then to the database.

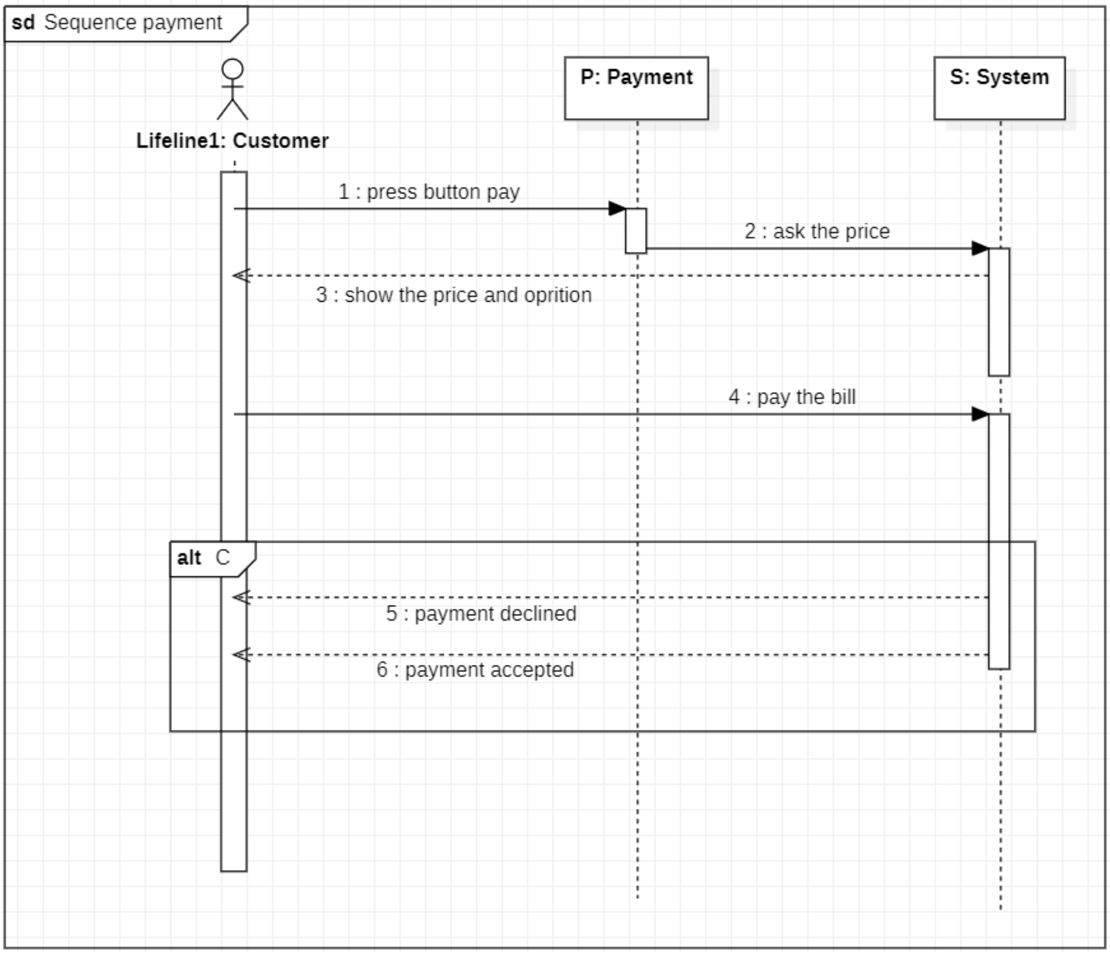
SEQUENCE DIAGRAM (ORDER FROM MENU)



Description:

In this drawing (sequence diagram) we explained a method of work order from the menu when the customer presses a button order from the menu he will return to the system and return to the customer and show him the products and then the customer chooses from them and then adds or deletes what he specified and then confirms the order.

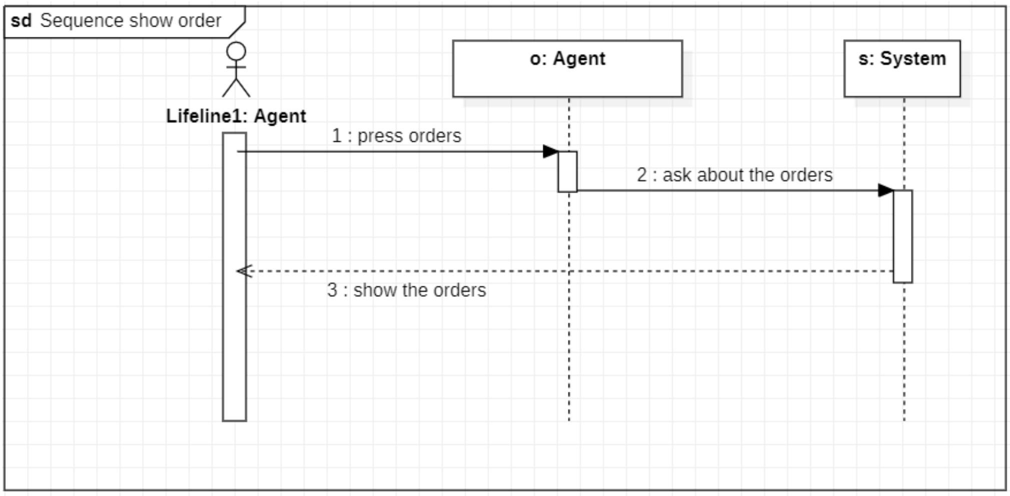
SEQUENCE DIAGRAM (PAYMENT)



Description:

In this drawing (sequence diagram) we explained a method of work payment when the customer presses the button pay he will return to the system and return to the customer and show him the price and payment methods to choose from, then the customer pays the invoice and the system verifies the payment process if it is completed or not done.

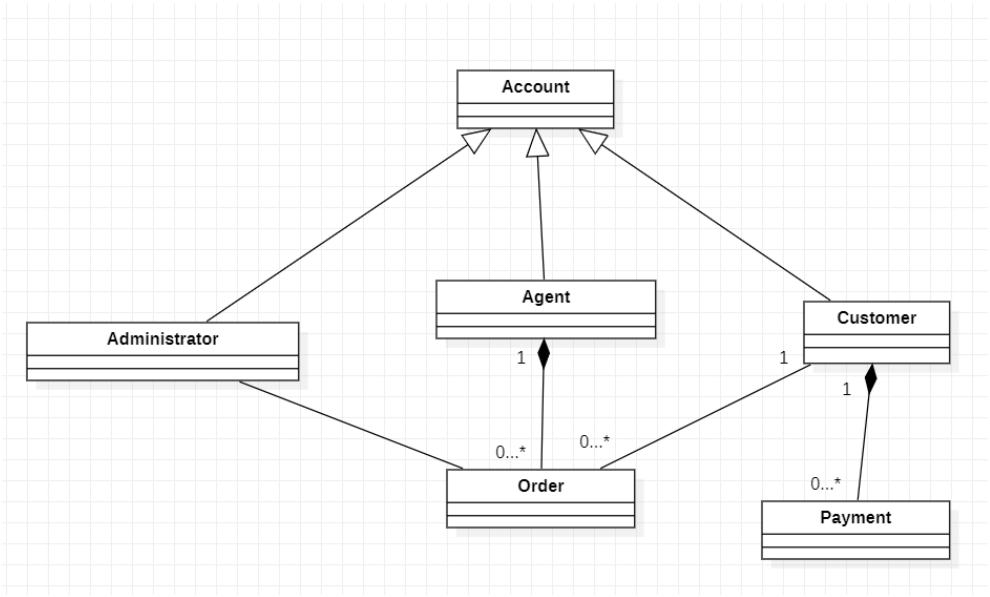
SEQUENCE DIAGRAM (SHOW ORDER)



Description:

In this drawing (sequence diagram) we explained how it works to show order when an agent presses a button to show an order it will return to the system and return to the agent and show it the existing orders.

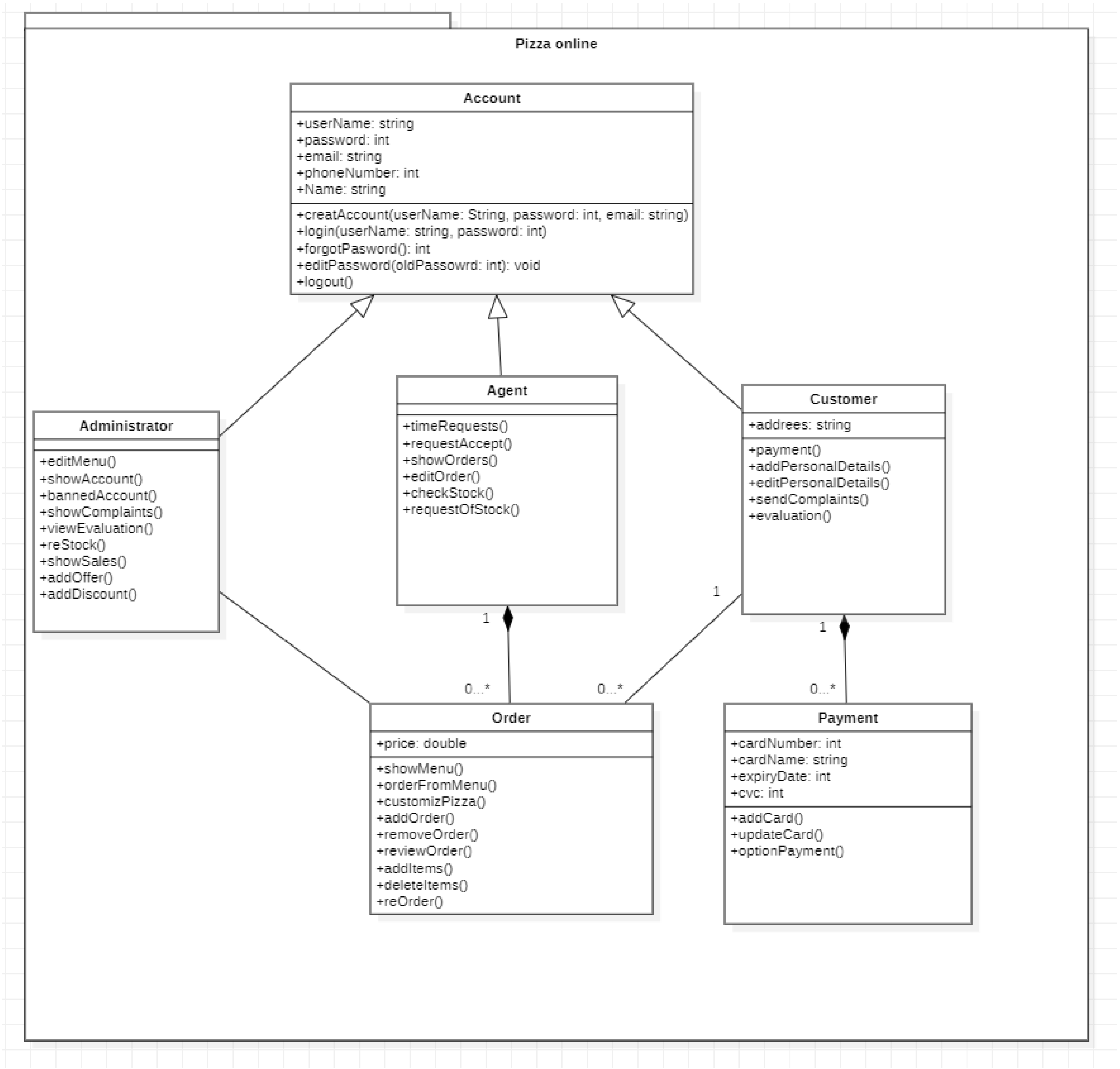
CONCEPTUAL DESIGN



Description:

Conceptual design is a simplified drawing of a class diagram (UML) showing the connection of the classes with each other.

CLASS DIAGRAM (UML)



Description:

In this drawing, we divide the method and put it into classes, and explain the relationship between the classes. this drawing helps us to make the code.

CODING PLAN:

We will use gradual development with XP so that we can make the requirements to suit the customer's request, and then we start the stage of writing the code and converting it into an executable system, and the steps will be as follows:

1. Select user stories for this release.
2. Break down stories to tasks.
3. Plan release.
4. Develop/integrate/test software.
5. Release software.
6. Evaluate system.

TESTING PLAN:

Testing in XP: The software is tested after each change is made.

1. **Test first development:**
   - Writing the test for a specific part (method) and then writing the basic method and it is tested with the verification method.
   - Writing the rest of the method and comparing it with the test parts.
   - Handling errors that appear.

2. **Customer involvement**
   - Carrying out acceptance tests by the client.

3. **Testing automation and difficulties:**
   - Performing a final test for the entire system, manually or automatically, through programs, and the two can be combined.

CONCLUSION

In conclusion, online pizza ordering systems have revolutionized the food delivery industry by offering easy-to-use platforms, convenient features, and enhanced customer satisfaction. With the advancement of technology, we have created a program for ordering pizza via the Internet, which makes it easier for people to order pizza easier and faster, and this application also contributes to reducing crowding in the restaurant.

In the end, we hope that our project will be complete, and that it will gain your admiration and satisfaction.