Donut Parade: Robert, Jakson, Manny, Rachael, Omar

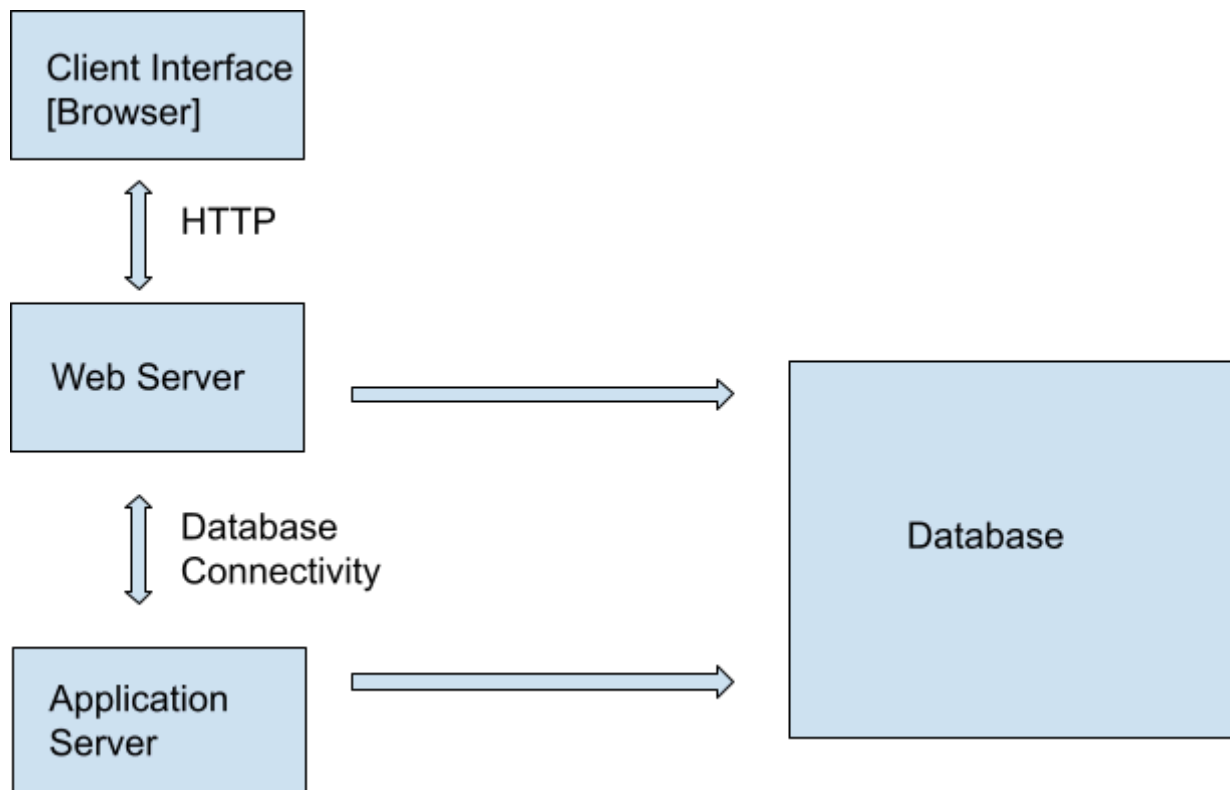# System Architecture:

Overview of the System Architecture

Structural:

Client Side UI: Main front-end part of the system where the users interact with the website. It includes the UI components such as menus, order forms, and other interactive elements.

Web Server: The web server is the host of Donut Parade, and it serves the pages to clients. The web server also handles HTTP requests and responses between the client and server.

Application Server: The application server contains the business logic of Donut Parade. It processes clients' requests and performs operations such as order validation, and database interactions.

Database: Stores important information about Donut Parade such as the menu options, customer details, order history, and other relevant data.

Behavioral:

Customer Places Order: Customers access the Donut Parade website through the client-side interface. They browse the menu, select items, customize their order, and proceed to checkout.
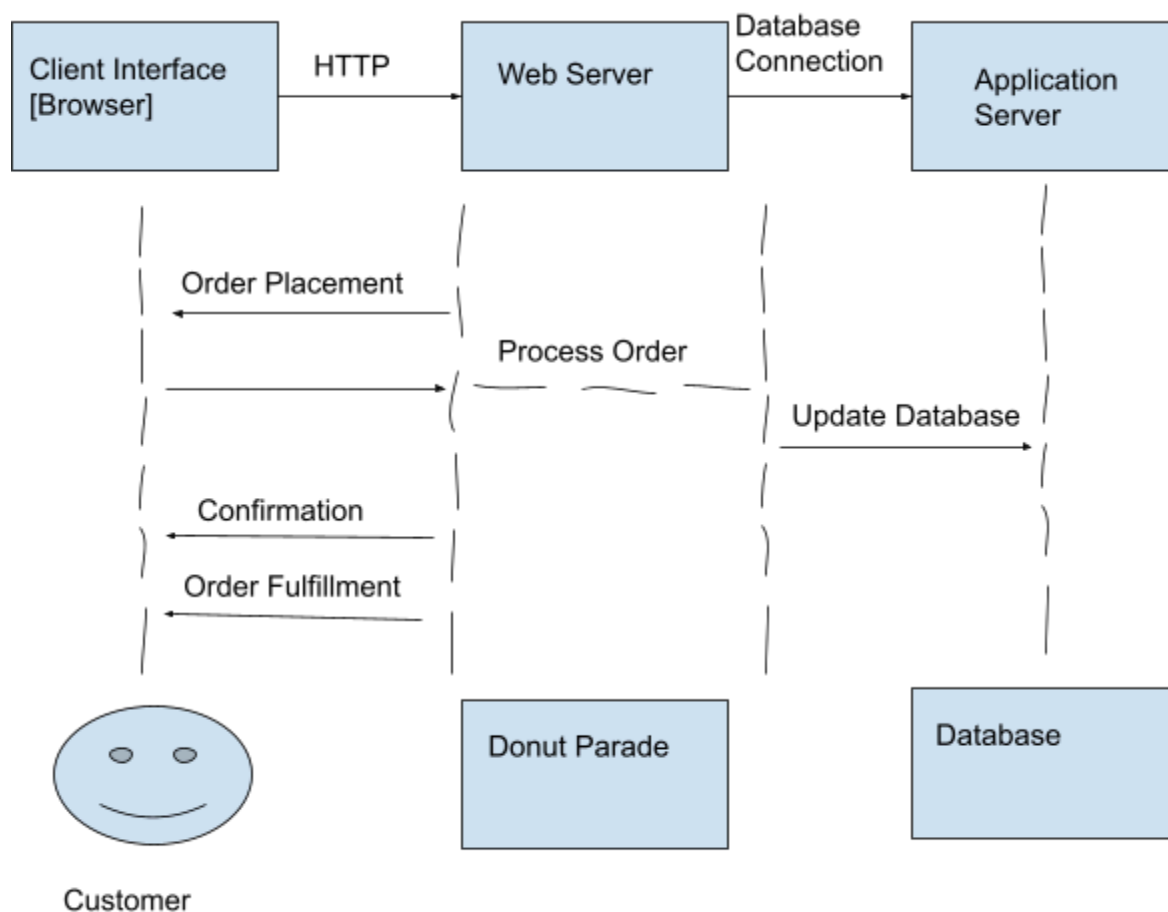
Web Server Receives Request: The web server receives the order request from the client-side interface and forwards it to the application server.

Application Server Processes Order: The application server processes the order request, verifies it, calculates the total amount and interacts with the database to store the order details.

Confirmation to Customer: After successful processing, the application server sends a confirmation message to the customer, acknowledging the placement of the order.
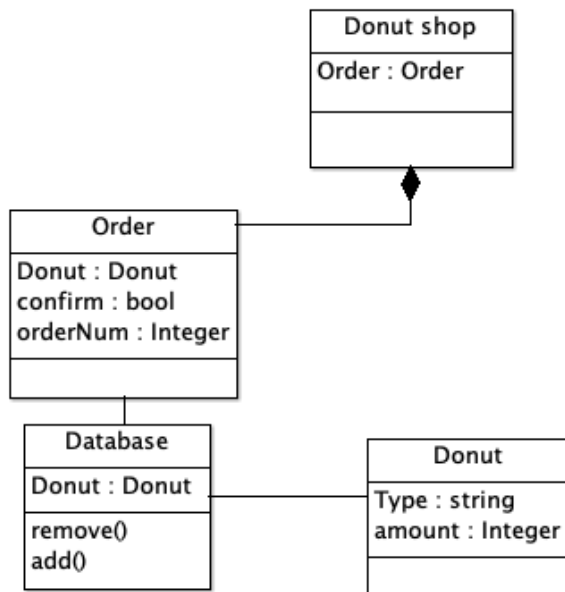
Order Fulfillment: The order fulfillment process involves preparing the ordered items for in-store or curbside pickup, depending on the customer's choice.

Database Management: The application server manages interactions with the database, including updating order information, storing new menu items, and maintaining customer records.
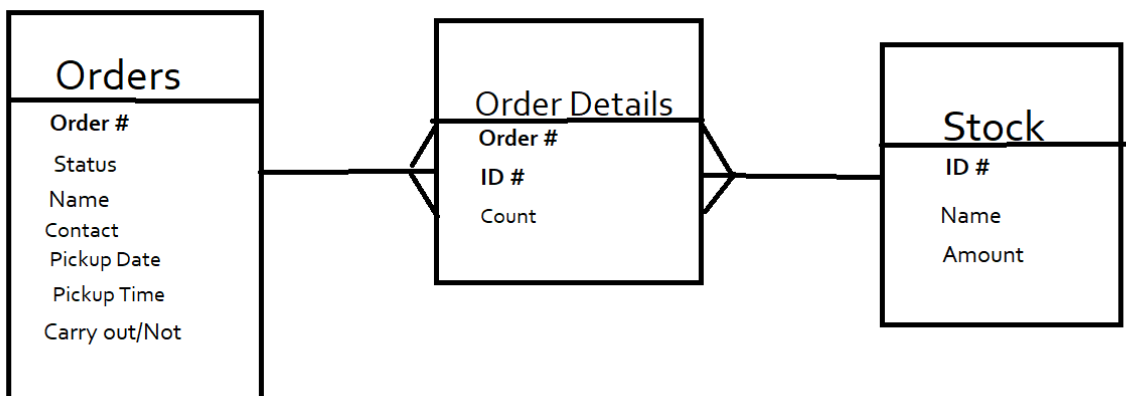
Class Diagram:
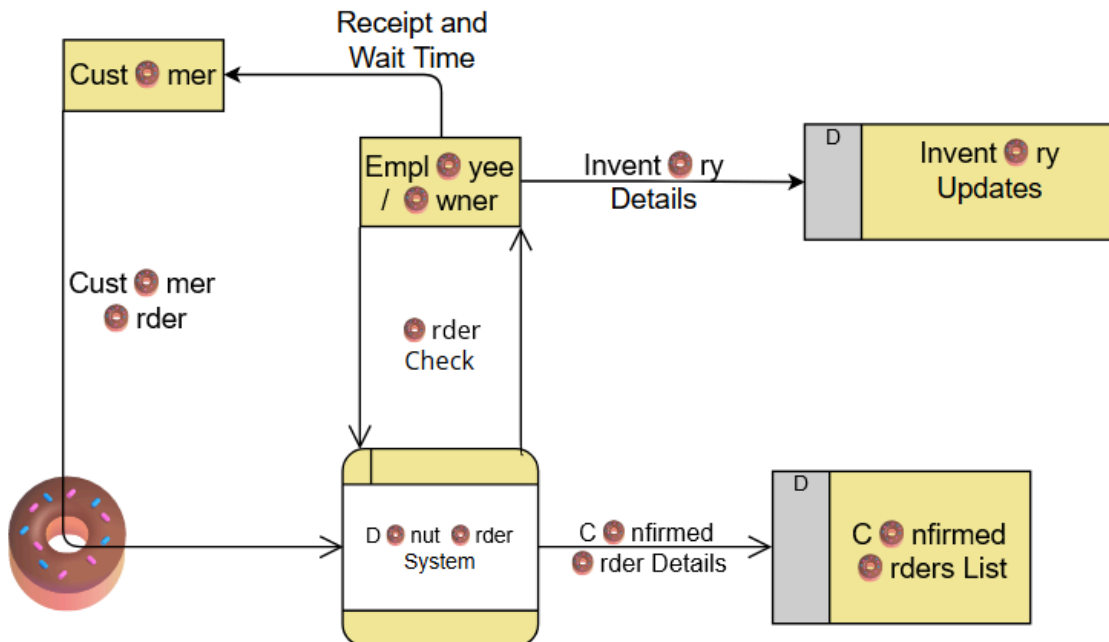

Data Design:

Data Model:

Schema Design:

      As shown in the ER diagram above, our database will have three tables, Orders, Order Details, and Stock. The Orders table will have a primary key of Order number, and will contain information regarding the name of the customer, contact info, and pickup information. The Stock table will have a primary key ID number, and will contain the name of the product and the amount in stock. The Order Detail table will have two foreign keys, Order number and ID number referencing the other two tables. It will also store information on the amount of each specific product in each order. The Order number and ID number will be incrementing integers, and none of the attributes will be nullable.

Data flow:

User Interface Design:

Orders:

Awaiting Approval	**Status: Awaiting Approval**
Approved	
Rejected	Order #123456
Completed	Jane Doe
All	(509) 555 - 5555

Status: Awaiting Approval

Order #123456
Jane Doe

(509) 555 - 5555

1 Dozen
3 Maple Bar
3 Choco Bar
3 Maple Round
3 Choco Round + Sprinkle

Desired Pickup Time
2:30 PM

In-Store Pickup
No car details

Edit
✔
✖

Status: Approved

Order #123456
Jane Doe

(509) 555 - 5555

1 Dozen
3 Maple Bar
3 Choco Bar
3 Maple Round
3 Choco Round + Sprinkle

Desired Pickup Time
2:30 PM

In-Store Pickup
No car details

✔
Edit

Status: Rejected

Order #123456
Jane Doe

(509) 555 - 5555

1 Dozen
3 Maple Bar
3 Choco Bar
3 Maple Round
3 Choco Round + Sprinkle

Desired Pickup Time
2:30 PM

In-Store Pickup
No car details

✖
Contact Customer for Order Changes
Edit

Status: Completed

Order #123456
Jane Doe

(509) 555 - 5555

1 Dozen
3 Maple Bar
3 Choco Bar
3 Maple Round
3 Choco Round + Sprinkle

Desired Pickup Time
2:30 PM

In-Store Pickup
No car details

Edit

Here is the UI order screen for Donut Parade. We choose to color code orders so that employees can easily distinguish the status of the orders. Approved orders are in green, rejected orders are red & pending orders and completed orders are gray. Each order has customer information as well as order details.

Menu:

DONUT Parade

Home Menu Order Contact Us About Us

Menu
Donuts made daily. We have daily specials and sometimes additional deals. Call store for more information.

Daily Donuts

Daily Donut - $1.95	Daily Donut - $1.95	Daily Donut - $1.95
A donut provided every day without fail yum	A donut provided every day without fail yum	A donut provided every day without fail yum
Add to cart	Add to cart	Add to cart

Here is how we plan our main menu to look. Nothing to special here, we chose to go with a clean and minimalist look. Our menu page will display daily donuts descriptions.