



**SAVEETHA SCHOOL OF ENGINEERING**  
**SAVEETHA INSTITUTE OF MEDICAL AND**  
**TECHNICAL SCIENCES**



**DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING**

**LIST OF EXPERIMENTS**

**COURSE CODE : CSA4001**

**COURSE NAME : MANAGEMENT INFORMATION SYSTEM**

- 2) **Draw a coffee day ordering system. A coffee day shop vending machine dispenses coffee to customers. Customers order coffee by selecting a recipe from a set of recipes. Customers pay for the coffee using coins. Change is given back, if any, to the customers. The 'service assistant' loads ingredients (coffee powder, milk, sugar, water, chocolate) into the coffee machine. The 'service assistant' adds recipe by indicating the name of the coffee, the units of coffee powder, milk, sugar, water, chocolate to be added as well as the cost of the coffee. The service assistant can also edit and delete a recipe. Develop the use case diagram for the specification above.**

**AIM:**

To design a UML diagram for a Coffee Day Ordering System, where customers order coffee from a vending machine by selecting a recipe and making a payment, while a service assistant manages ingredients and recipes.

**PROCEDURE:**

- 1) **Customer Selects Coffee Recipe**

The customer chooses a coffee type from the available recipes (e.g., Espresso, Cappuccino, Mocha).

- 2) **Customer Makes Payment**

The customer inserts coins into the vending machine.

If extra money is inserted, the machine calculates and returns the change.

- 3) **System Validates Payment & Recipe Availability**

The machine verifies if the inserted amount is correct.

It checks if sufficient ingredients are available for the selected coffee.

- 4) **Coffee is Dispensed**

If the payment is successful and ingredients are available, the vending machine prepares and dispenses the coffee.

5) Service Assistant Loads Ingredients

The assistant refills coffee powder, milk, sugar, water, and chocolate as needed.

6) Service Assistant Manages Recipes

The assistant can add new coffee recipes by specifying ingredient amounts and price.

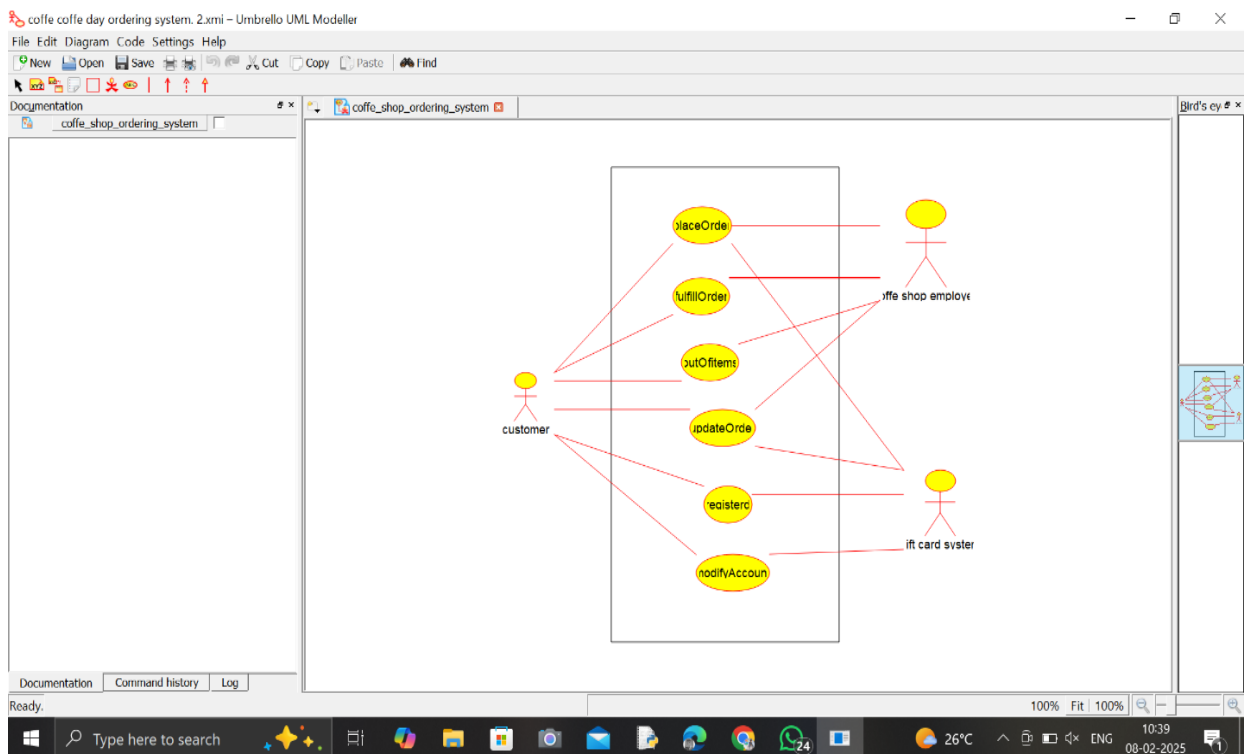
Recipes can also be modified or deleted.

7) System Updates Inventory & Logs Transactions

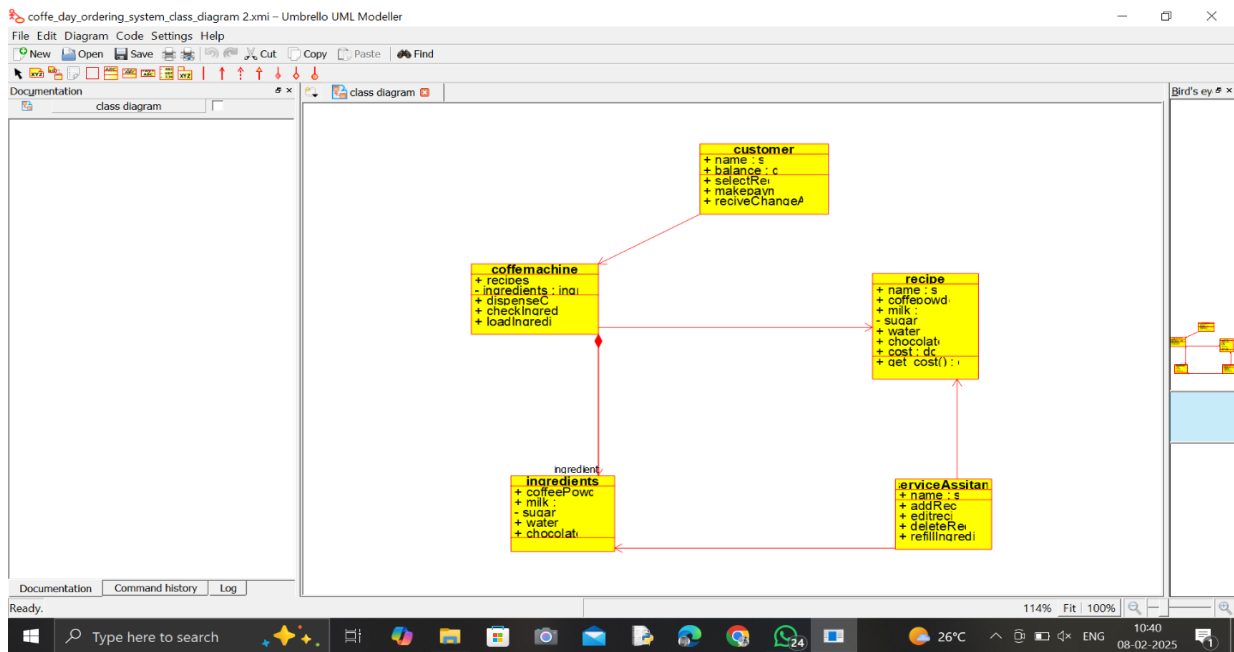
After each transaction, the system updates ingredient levels and logs orders for tracking.

## OBSERVATION:

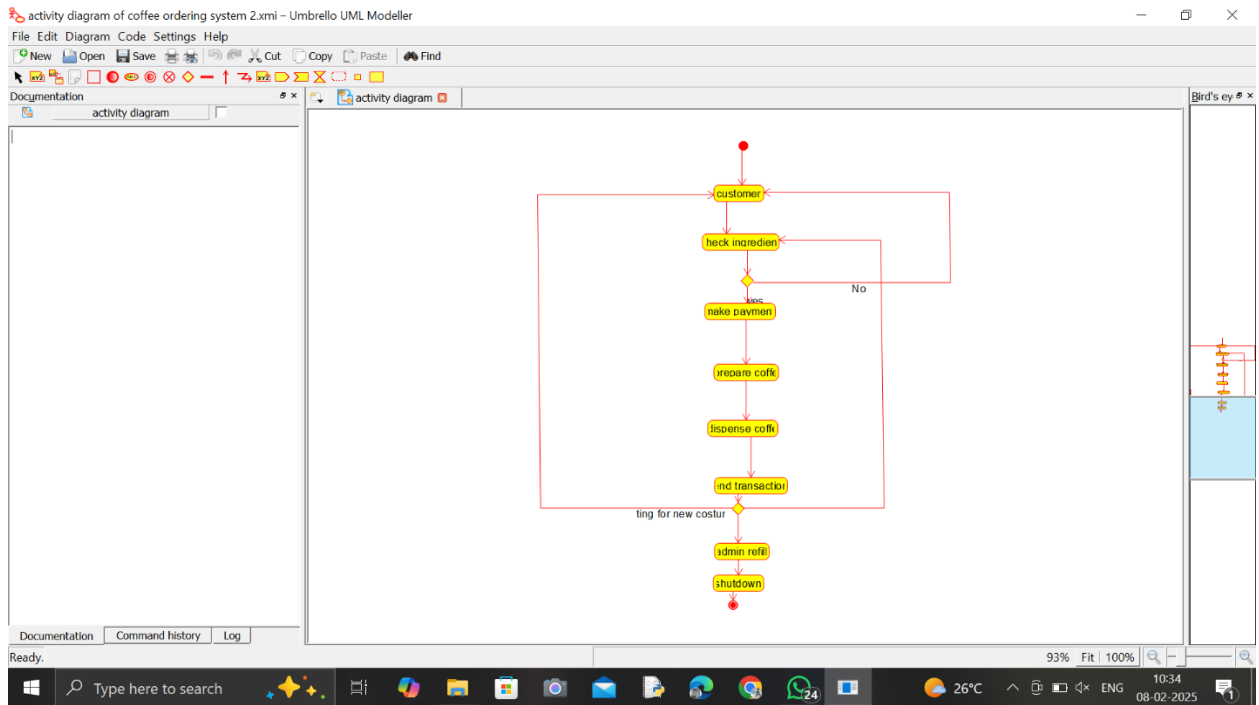
## USECASE DIAGRAM:



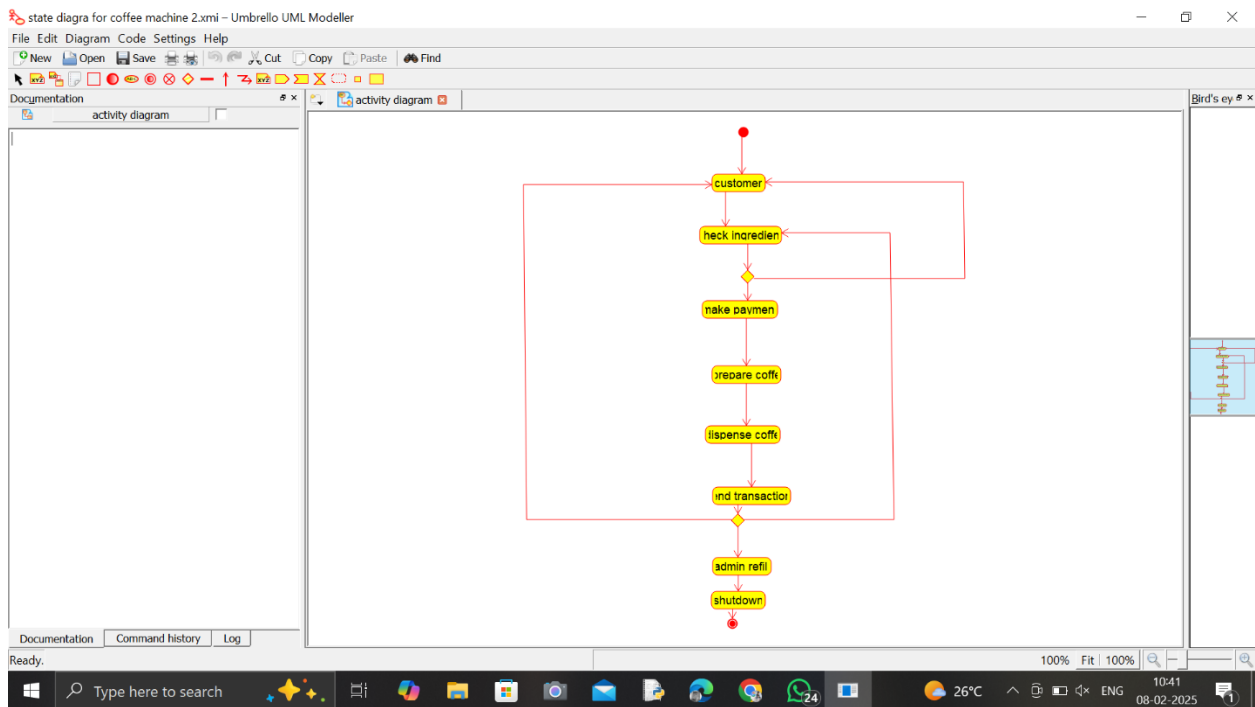
## CLASS DIAGRAM:



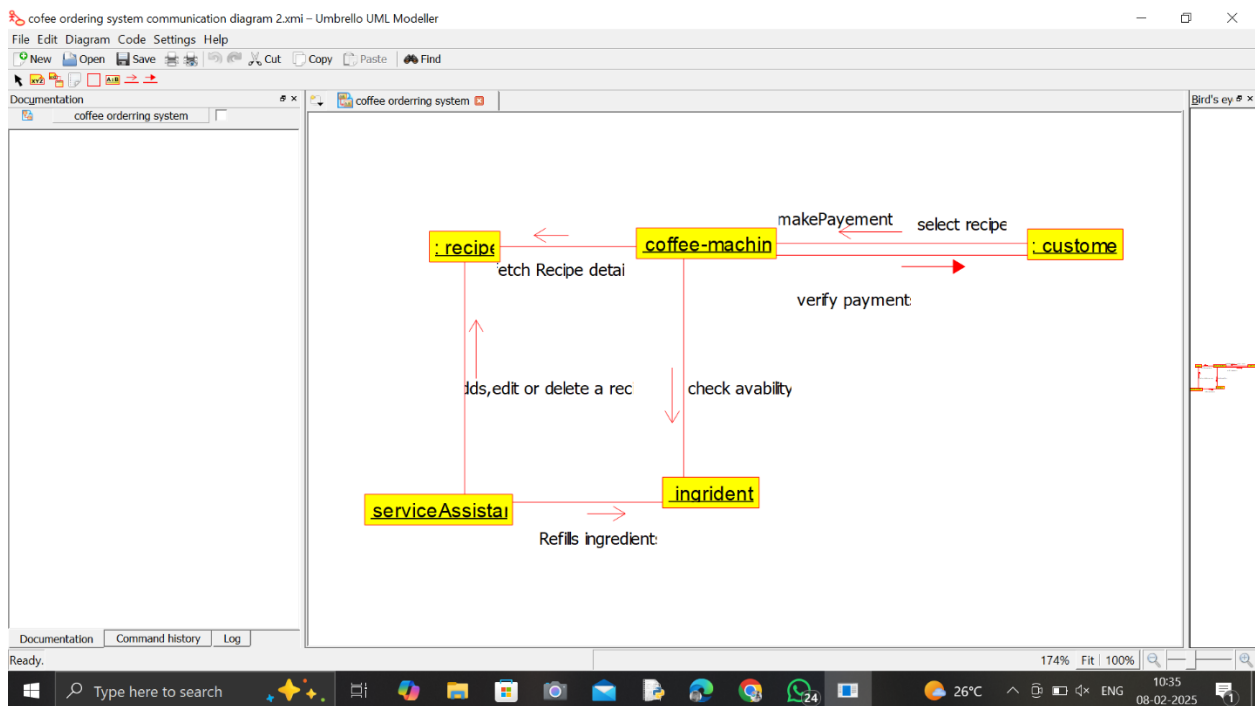
## ACTIVITY DIAGRAM:



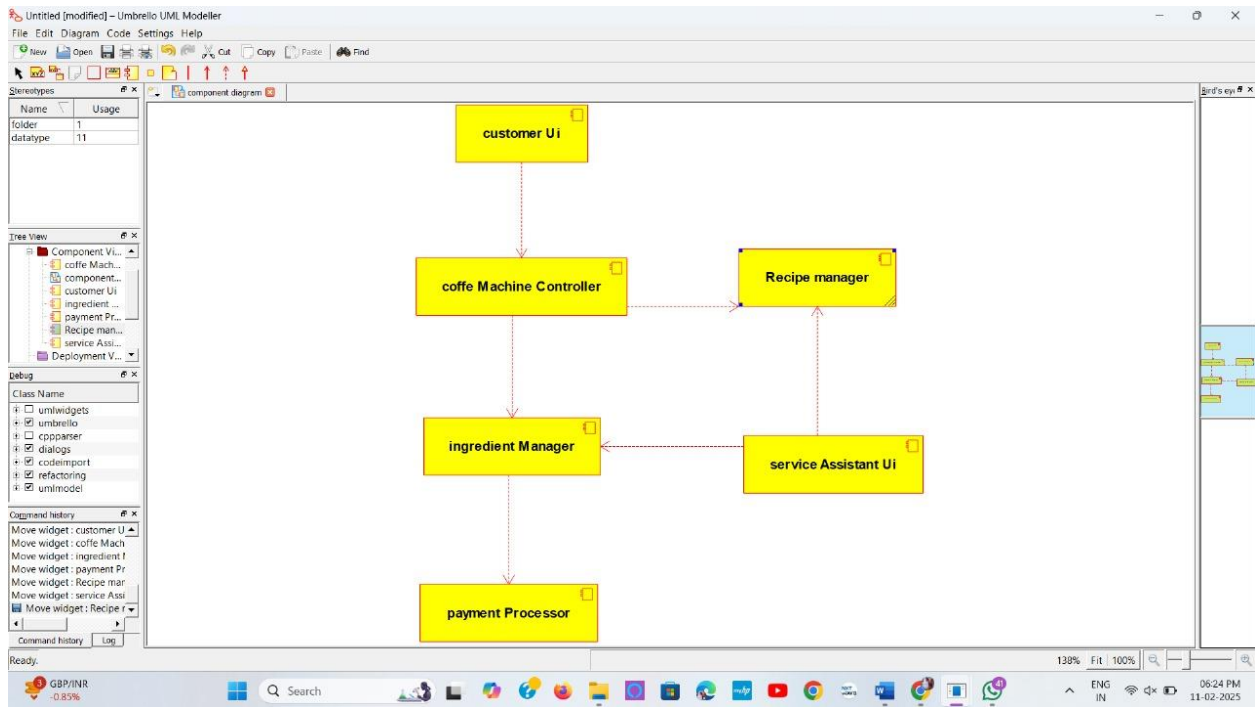
## STATE DIAGRAM:



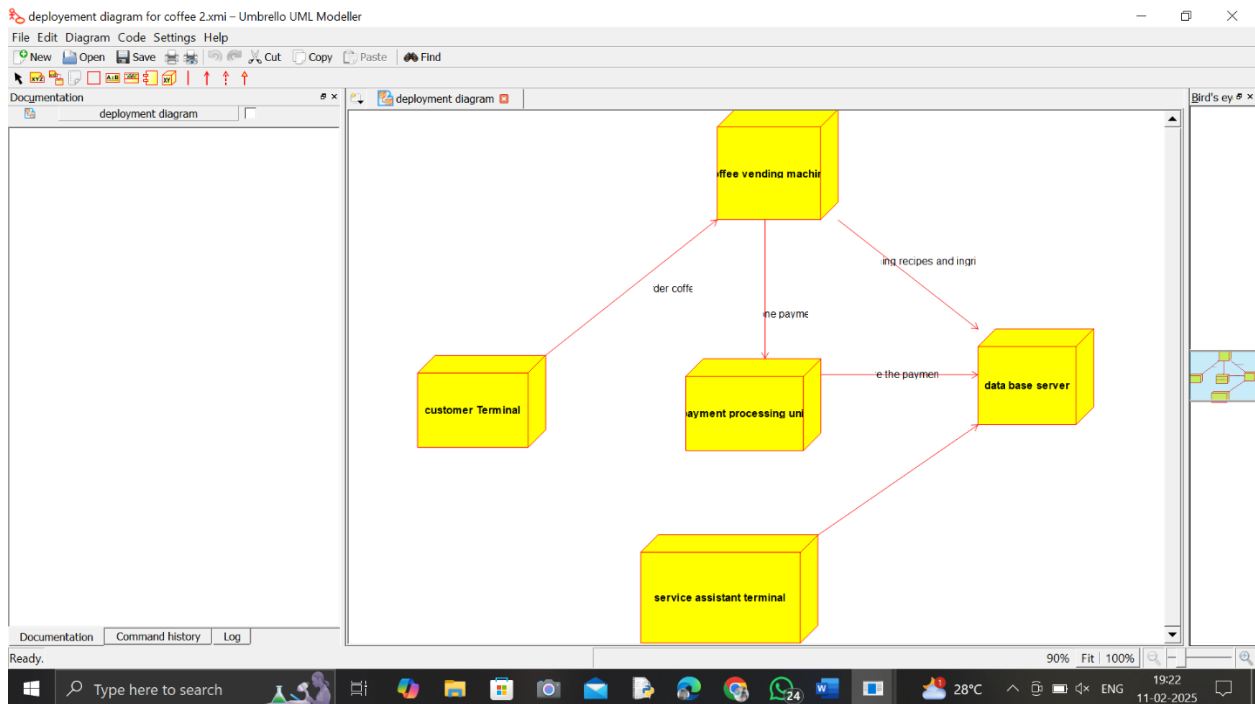
## COLLABORATION DIAGRAM:



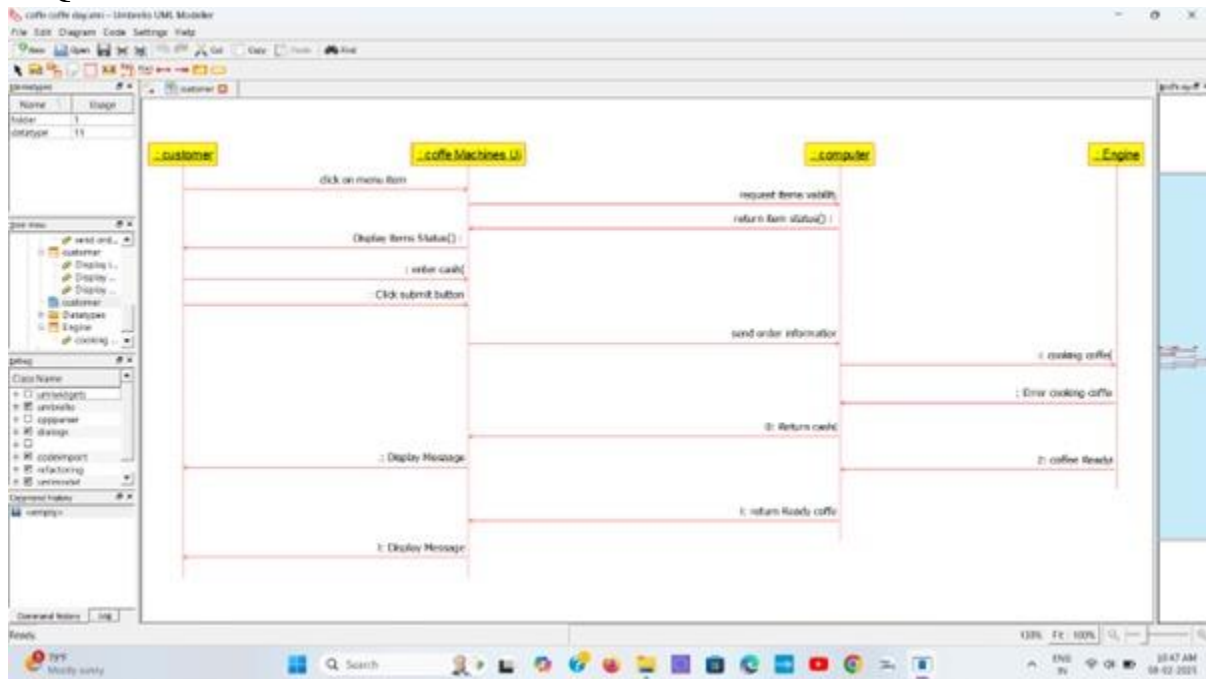
## COMPONENT DIAGRAM:



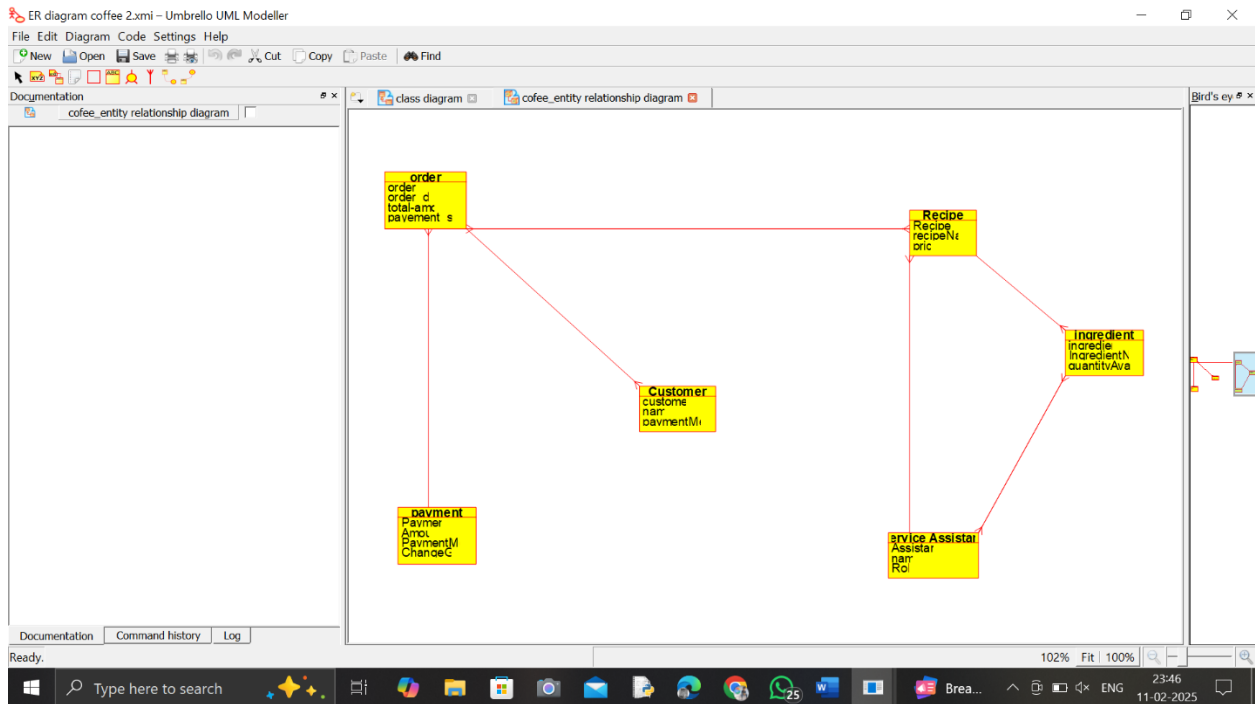
## DEPLOYMENT DIAGRAM:



## SEQUENCE DIAGRAM:



## ER DIAGRAM:



**RESULT:**

The Coffee Vending Machine System allows customers to select and pay for coffee, receiving change if applicable, while the Service Assistant manages ingredients and recipes. This ensures efficient coffee dispensing and smooth machine operations.