Exercise 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.

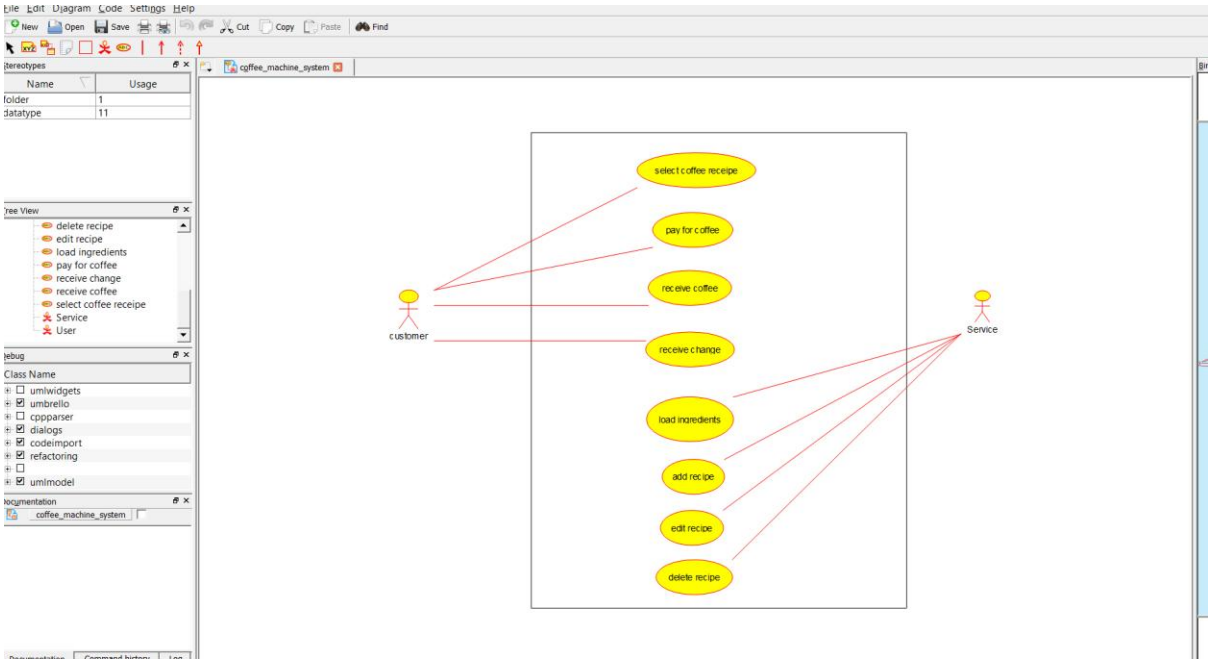
Aim:

To create a use case diagram for a Coffee Vending Machine system that allows customers to order coffee, make payments, and receive change while enabling service assistants to manage recipes and ingredients.

Procedure:

1. **Identify Actors** – Determine the key users of the system, such as the Customer and Service Assistant.
2. **Define Customer Use Cases** – Outline the actions a customer can perform, including selecting a coffee recipe and making payments.
3. **Define Service Assistant Use Cases** – Specify the tasks a service assistant can carry out, such as adding, modifying, or removing recipes.
4. **Establish Relationships** – Link each actor to their respective use cases based on system interactions.
5. **Define System Boundaries** – Clearly mark the system scope to indicate where vending machine functionalities start and end.
6. **Develop the Use Case Diagram** – Illustrate actors, use cases, and their relationships in compliance with UML standards.
7. **Review and Finalize** – Ensure the diagram accurately represents all system functionalities and interactions.

Output



Result

Thus the UML diagram for the Coffee Day Ordering System has been implemented successfully