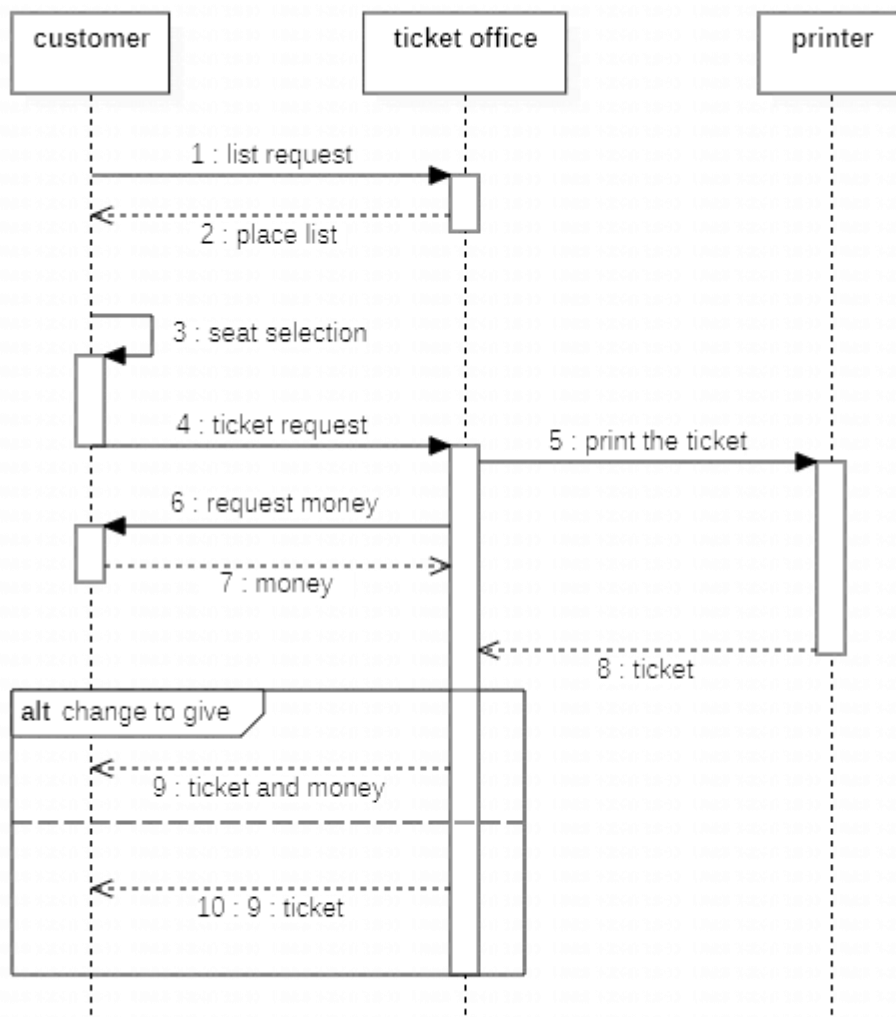


Exercise 1 :

Construct the sequence diagram for purchasing a ticket for a football match.

Solution :



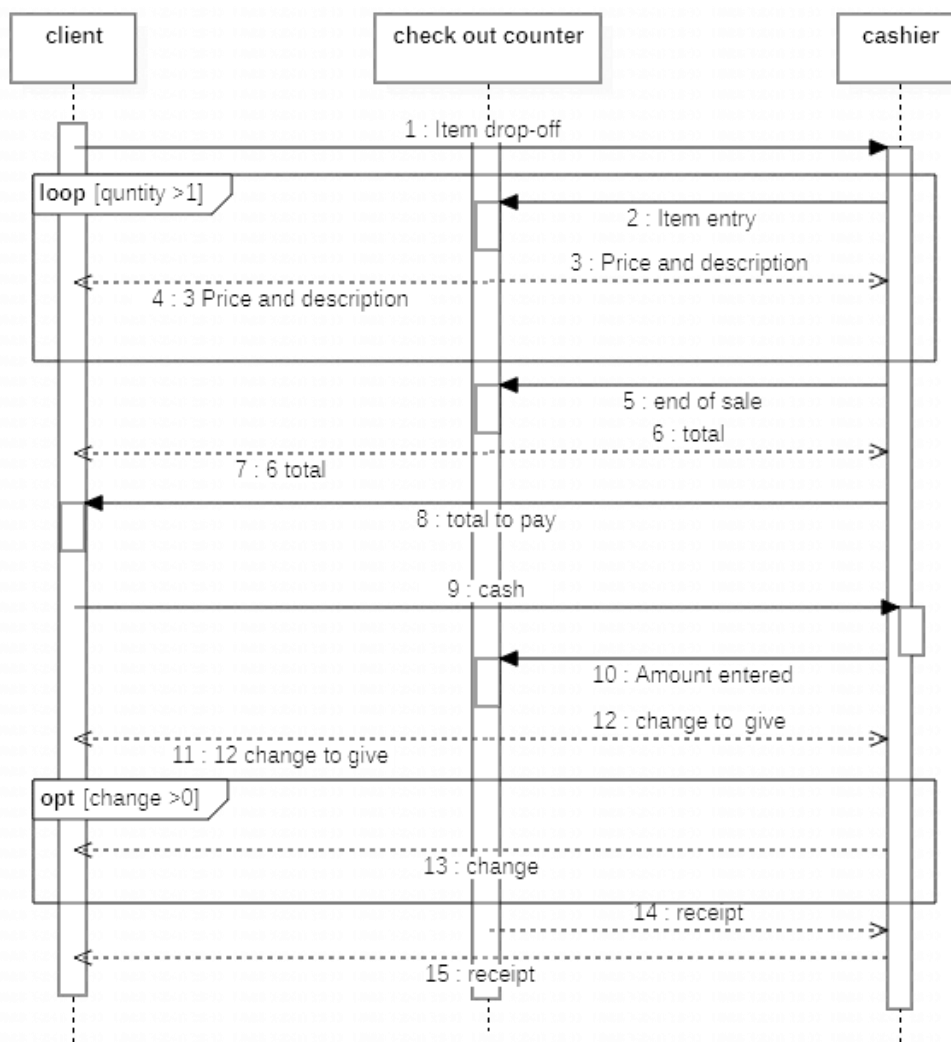
Exercise 2 :

The normal process of using a supermarket cash register is as follows:

1. A customer arrives at the checkout counter with their items to be paid for.
2. The cashier records the identification number of each item, as well as the quantity if it is greater than one.
3. The cash register displays the price and description of each item.
4. When all items have been recorded, the cashier indicates the end of the sale.
5. The cash register displays the total amount of the purchase.
6. The cashier informs the customer of the total amount to be paid.
7. The customer chooses their method of payment:
 - Cash: the cashier collects the money, and the register displays the amount of change to be given to the customer.
 - Check: the cashier records the customer's ID number.
 - Credit card: an authorization request is sent before entry.
8. The cash register records the sale and prints the receipt.
9. The cashier hands the receipt to the customer.

Model this situation using a sequence diagram, considering only the case of cash payment

Solution :



Exercise 3 :

The normal flow of the use case "Cash Withdrawal" includes the following steps:

- The teller enters the client's account number.
- The application validates the account with the central system.
- The teller requests a withdrawal of 10,000 DA.
- The "teller" system queries the central system to ensure that the account has sufficient funds.
- The central system debits the account.
- In response, the system notifies the teller that they may dispense the requested amount.

Draw the sequence diagram corresponding to this textual description

Solution :

