Algorithm: Cafeteria Order System

Step 1: Start Program

- Display the login screen to the user.
- Wait for the user to enter a correct username and password (pre-set to `"user"` and `"pass"`).
- If the login fails after three attempts, terminate the program.
- If the login is successful, proceed to the main menu.

Step 2: Display Main Menu

- Show the following options:
    1. **Calculate Bill**
    2. **Order Items**
    3. **Edit Items**
    4. **Display Orders**
    5. **Search Orders**
    6. **Delete Orders**
    7. **Exit**
- Wait for user input to select an option.
- If the user selects any option, call the respective function and repeat this process.

Step 3: Main Menu Functions

Option 1: Calculate Bill

- The program prompts the user to enter item codes and quantities for items ordered.
- For each item, the program searches for the item in the database (using the `record.txt` file).
- If the item is found, the program calculates the total cost and displays it.
- The user can continue adding more items or type `"end"` to finish the bill.
- Finally, the program displays the total amount and updates the item quantity in the file.

Option 2: Order Items

- This option allows the user to add new items to the inventory.
- The user is asked if they want to enter a new record.
- For each new item:
    - A unique item code is generated and checked for uniqueness using `c_code`.
    - The program then asks for the rate, quantity, and name of the item.
    - The new item is written to `record.txt`.

Option 3: Edit Items

- The user can search for an item by its code.
- If the item is found, the user can choose to:
    - Edit the name, code, rate, or quantity.
- After making changes, the updated item information is written back to the `record.txt` file.

Option 4: Display Orders

- This option shows all the items in the inventory.
- It reads all the items from `record.txt` and displays them in a tabular format.
- If the list is too long, the program will prompt the user to press a key to see more records.

Option 5: Search Orders

- The user can search for items based on code, rate, or quantity.
    - **By Code:** The user is asked to enter the code of the item, and if a match is found, the item is displayed.
    - **By Rate:** The user is asked to input a range (lower and upper bounds), and items in that range are displayed.
    - **By Quantity:** The user is asked to input a quantity range, and items within that range are displayed.

Option 6: Delete Orders

- The user can delete an item by entering its code.
- The program searches for the item, and if found, the item is removed from `record.txt`.
- A temporary file (`record1.txt`) is used to hold items that are not deleted. After processing, `record1.txt` is renamed to `record.txt` to update the inventory.

Option 7: Exit

- Exits the program.