**Admin File :**

## File: admin.py

from customer import Customer

class Admin:

def \_\_init\_\_(self, name):

self.name = name

def admin\_menu(self, restaurant):

while True:

print("\n--- Admin Menu ---")

print("1. Create Customer Account")

print("2. Remove Customer Account")

print("3. View All Customers")

print("4. Manage Restaurant Menu")

print("5. Exit")

choice = input("Select an option: ")

if choice == '1':

name = input("Enter name: ")

email = input("Enter email: ")

address = input("Enter address: ")

customer = Customer(name, email, address)

restaurant.add\_customer(customer)

print(f"Customer {name} added.")

elif choice == '2':

email = input("Enter customer email to remove: ")

restaurant.remove\_customer(email)

print("Customer removed (if email existed).")

elif choice == '3':

restaurant.view\_customers()

elif choice == '4':

self.manage\_menu(restaurant)

elif choice == '5':

print("Exiting Admin Menu.")

break

else:

print("Invalid choice. Try again.")

def manage\_menu(self, restaurant):

while True:

print("\n--- Manage Menu ---")

print("1. Add Item")

print("2. Remove Item")

print("3. Update Item Price")

print("4. Show Menu")

print("5. Exit")

choice = input("Select an option: ")

if choice == '1':

item = input("Enter item name: ")

price = float(input("Enter item price: "))

restaurant.add\_menu\_item(item, price)

print(f"{item} added to menu.")

elif choice == '2':

item = input("Enter item name to remove: ")

restaurant.remove\_menu\_item(item)

print(f"{item} removed from menu (if it existed).")

elif choice == '3':

item = input("Enter item name to update: ")

price = float(input("Enter new price: "))

restaurant.update\_menu\_item(item, price)

print(f"{item} price updated to ${price}.")

elif choice == '4':

restaurant.show\_menu()

elif choice == '5':

print("Exiting Menu Management.")

break

else:

print("Invalid choice. Try again.")

**Customer File:**

## File: customer.py

class Customer:

def \_\_init\_\_(self, name, email, address):

self.name = name

self.email = email

self.address = address

self.balance = 0

self.order\_history = []

def add\_balance(self, amount):

if amount > 0:

self.balance += amount

print(f"${amount} added to balance. Current Balance: ${self.balance}")

else:

print("Invalid amount.")

def view\_balance(self):

print(f"Current Balance: ${self.balance}")

def place\_order(self, restaurant):

print("\n--- Place an Order ---")

restaurant.show\_menu()

order\_item = input("Enter the item you want to order: ")

if order\_item in restaurant.menu:

price = restaurant.menu[order\_item]

if self.balance >= price:

self.balance -= price

self.order\_history.append((order\_item, price))

print(f"Order placed: {order\_item} for ${price}. Remaining Balance: ${self.balance}")

else:

print("Insufficient balance. Please add funds.")

else:

print("Invalid item selection.")

def view\_past\_orders(self):

print("\n--- Past Orders ---")

if self.order\_history:

for idx, (item, price) in enumerate(self.order\_history, start=1):

print(f"{idx}. {item} - ${price}")

else:

print("No past orders.")

**Restaurant File :**

## File: restaurant.py

class Restaurant:

def \_\_init\_\_(self, name):

self.name = name

self.menu = {}

self.customers = {}

# Menu Management

def add\_menu\_item(self, item\_name, price):

self.menu[item\_name] = price

def remove\_menu\_item(self, item\_name):

if item\_name in self.menu:

del self.menu[item\_name]

def update\_menu\_item(self, item\_name, price):

if item\_name in self.menu:

self.menu[item\_name] = price

def show\_menu(self):

print("\n--- Restaurant Menu ---")

for item, price in self.menu.items():

print(f"{item}: ${price}")

def add\_customer(self, customer):

self.customers[customer.email] = customer

def remove\_customer(self, email):

if email in self.customers:

del self.customers[email]

def view\_customers(self):

print("\n--- Registered Customers ---")

for customer in self.customers.values():

print(f"Name: {customer.name}, Email: {customer.email}, Address: {customer.address}")

**Main File :**

from restaurant import Restaurant

from admin import Admin

from customer import Customer

restaurant = Restaurant("Kodom Ali's Restaurant")

admin = Admin("Admin")

while True:

print("\n--- Restaurant Management System ---")

print("1. Admin Login")

print("2. Customer Login")

print("3. Exit")

choice = input("Select an option: ")

if choice == '1':

admin\_name = input("Enter Admin Name: ")

if admin\_name == admin.name:

print(f"\nWelcome Admin {admin\_name}")

admin.admin\_menu(restaurant)

else:

print("Invalid Admin Name.")

elif choice == '2':

email = input("Enter Customer Email: ")

if email in restaurant.customers:

customer = restaurant.customers[email]

while True:

print(f"\n--- {customer.name}'s Menu ---")

print("1. View Restaurant Menu")

print("2. View Balance")

print("3. Add Balance")

print("4. Place Order")

print("5. View Past Orders")

print("6. Exit")

c\_choice = input("Select an option: ")

if c\_choice == '1':

restaurant.show\_menu()

elif c\_choice == '2':

customer.view\_balance()

elif c\_choice == '3':

amount = float(input("Enter amount to add: "))

customer.add\_balance(amount)

elif c\_choice == '4':

customer.place\_order(restaurant)

elif c\_choice == '5':

customer.view\_past\_orders()

elif c\_choice == '6':

print("Exiting Customer Menu.")

break

else:

print("Invalid choice. Try again.")

else:

print("Customer not found. Please contact Admin to create an account.")

elif choice == '3':

print("Exiting the system. Goodbye!")

break

else:

print("Invalid choice. Try again.")