Class Exercise

1. Write a Python class Employee with attributes like emp_id, emp_name, emp_salary, and emp_department and methods like calculate_emp_salary, emp_assign_department, and print_employee_details.

Sample Employee Data:

"ADAMS", "E7876", 50000, "ACCOUNTING"

"JONES", "E7499", 45000, "RESEARCH"

"MARTIN", "E7900", 50000, "SALES"

"SMITH", "E7698", 55000, "OPERATIONS"

- Use 'assign_department' method to change the department of an employee.
- Use 'print_employee_details' method to print the details of an employee.
- Use 'calculate_emp_salary' method takes two arguments: salary and hours_worked, which is the number of hours worked by the employee. If the number of hours worked is more than 50, the method computes overtime and adds it to the salary. Overtime is calculated as following formula:

overtime = hours_worked - 50

Overtime amount = (overtime * (salary / 50))

2. Write a Python class Restaurant with attributes like menu_items, book_table, and customer_orders, and methods like add_item_to_menu, book_tables, and customer_order. Perform the following tasks now:

- Now add items to the menu.
- Make table reservations.
- Take customer orders.
- Print the menu.
- Print table reservations.
- Print customer orders.

3. Write a Python class BankAccount with attributes like account_number, balance, date_of_opening and customer_name, and methods like deposit, withdraw, and check_balance.

4. Write a Python class Inventory with attributes like item_id, item_name, stock_count, and price, and methods like add_item, update_item, and check_item_details.
Use a dictionary to store the item details, where the key is the item_id and the value is a dictionary containing the item_name, stock_count, and price.