JPA Assignments

1. Perform basic CRUD operations on Book entity (id, title, price, description) using JPA.
2. Perform the following database operation using JPQL & Criteria API-
3. Find total salary of all employees.
4. List down all employees ordered by their salary. Try with both JPQL & Criteria API.
5. Group the employees based upon their city.
6. Calculate the average salary of employees.
7. List down employees having salary more than 10,000.
8. Configure all above queries as Named queries inside entity using annotation & read the JPQL from there.
9. Perform CRUD operations on tables having 1-1 mapping i.e. Customer & Enquiry.
10. Perform CRUD operations on tables having 1-m mapping i.e. Market & Stock. Try all cascade options.
11. Perform CRUD operations on tables having m-m mapping i.e. Student & Course.
12. Suppose there is hierarchy of entities Vehicle, Car, Bike where Vehicle is a base class for Car & Bike. Write JPA application to map these entities into database using 3 strategies:
    1. Table Per Hierarchy
    2. Table Per Concrete class
    3. Table Per Subclass
13. Create a console based chatting application where complete data including chatrooms, messages, userlist is stored into database tables instead of collection classes. Design tables & manipulate them using JPA. Assume one user belongs to only one chatroom.