# First Year Case Study

# Objectives

- To introduce the first year case study.
- To study the Use Case model.
- To study the case study architecture.
- To consider the analysis model.
- To consider the domain classes.
- To view the JavaDB Database tables.
- To study the design model.
- To execute and use the case study.

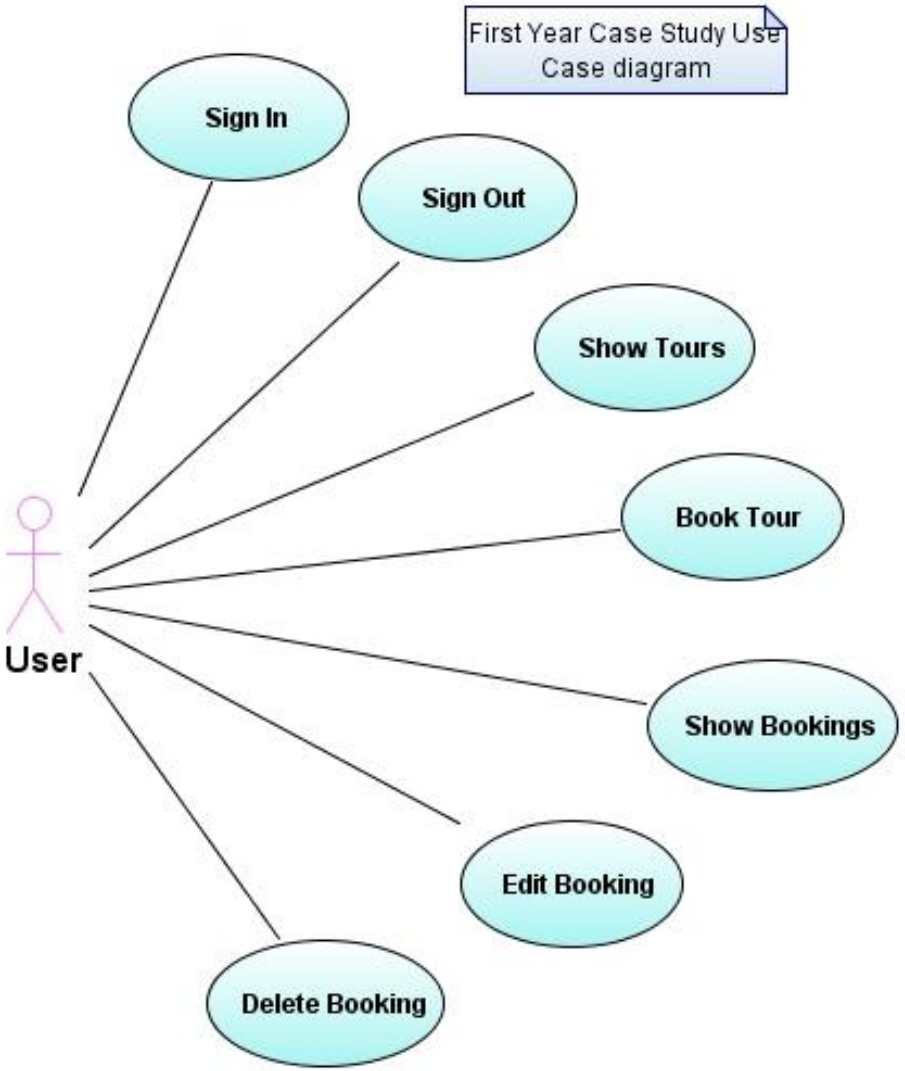
# The First Year Case Study - 1

- **The case study is a simple 3-tier Web application.**
- **The application is an E-Commerce application that might be used by a travel company to allow the booking of travel tours.**
- **Case study clients are thin e.g. a Firefox or Internet Explorer Web browser.**

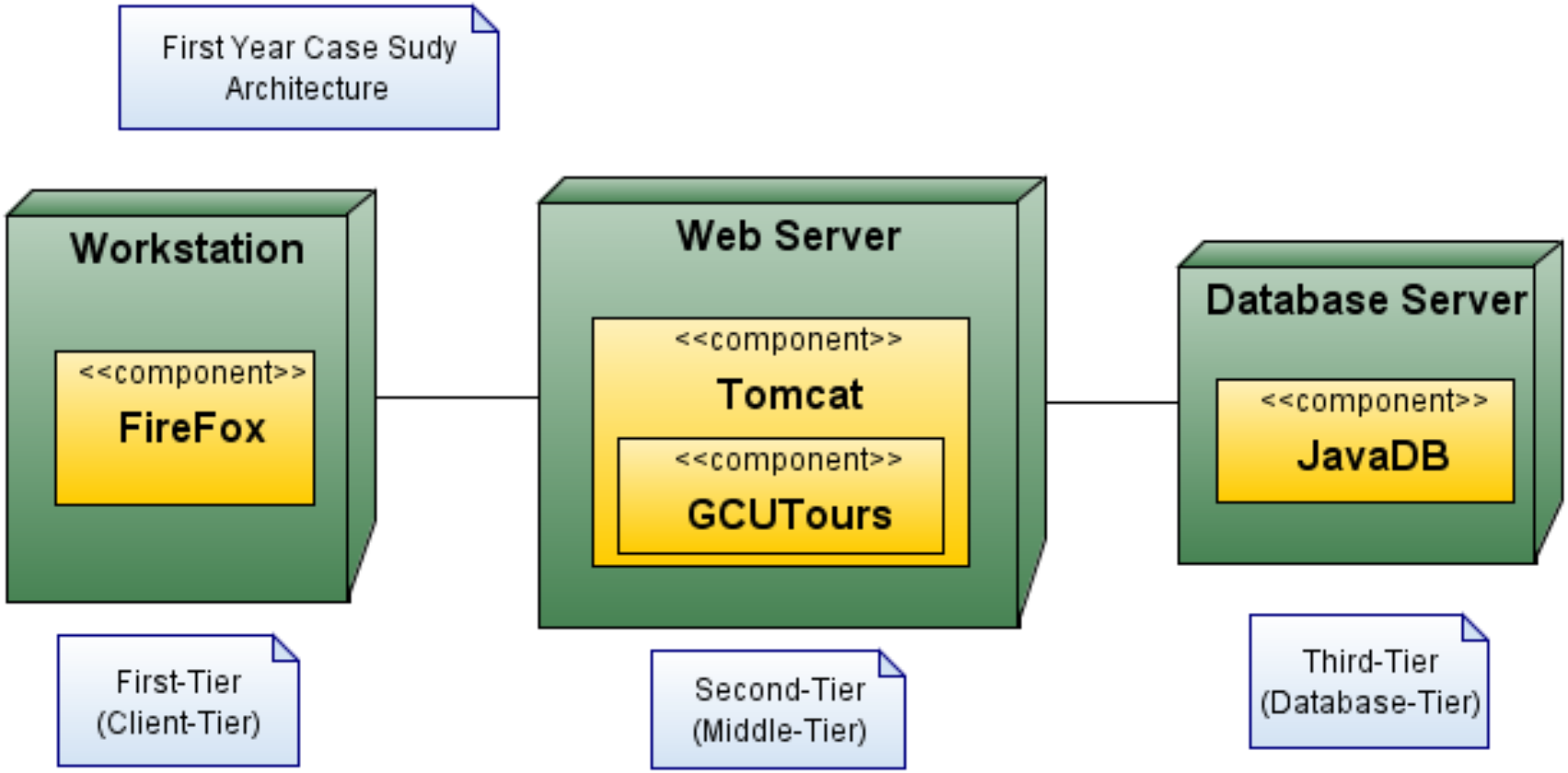
# The First Year Case Study - 2

- The middle tier is implemented using Java technology and is responsible for Presentation, Business and Data Access Logic.
- The middle tier uses a server called Tomcat that can serve Web pages and can also execute code in response to client requests.
- The JavaDB database server is the third tier

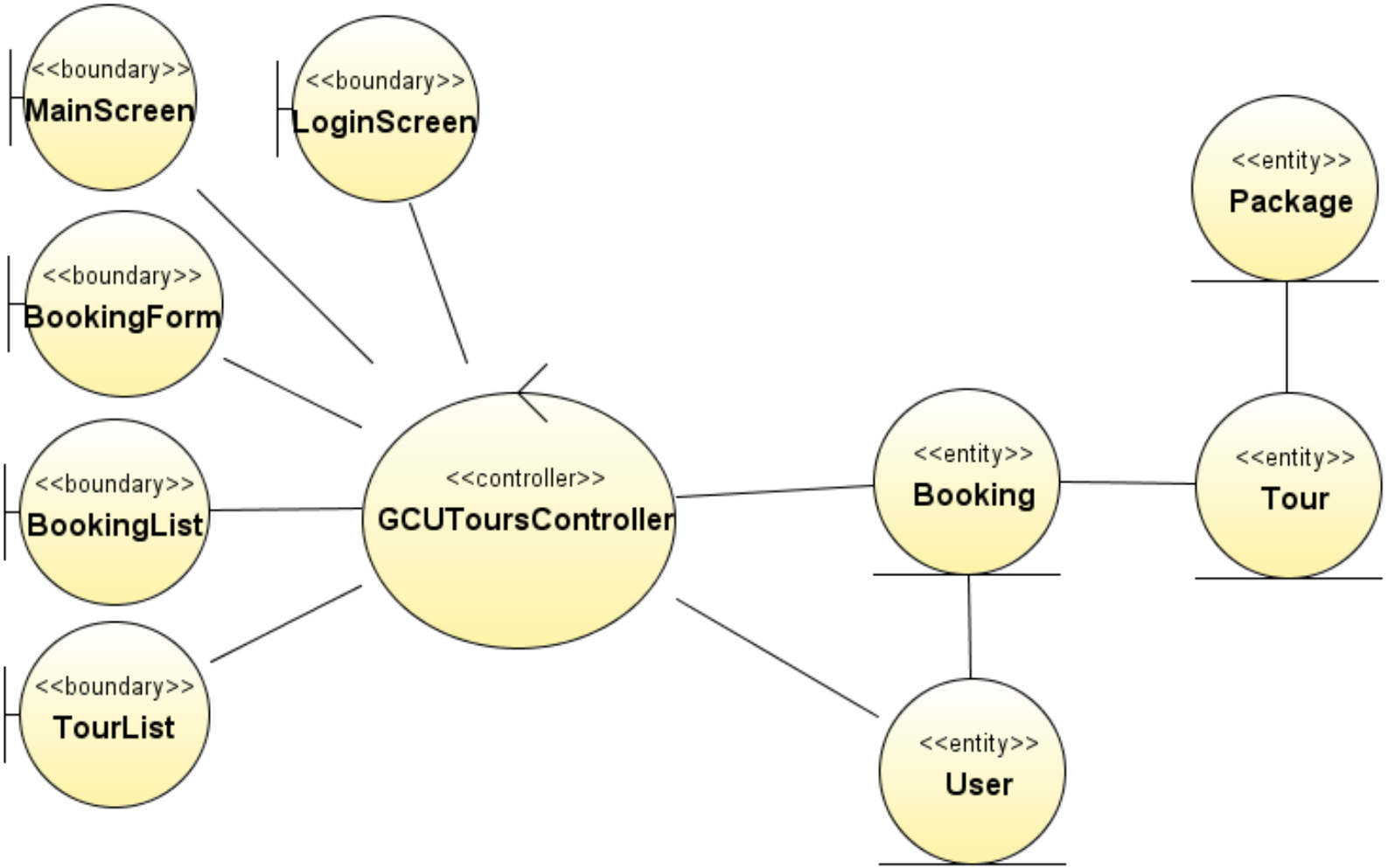
# The Use Case Model



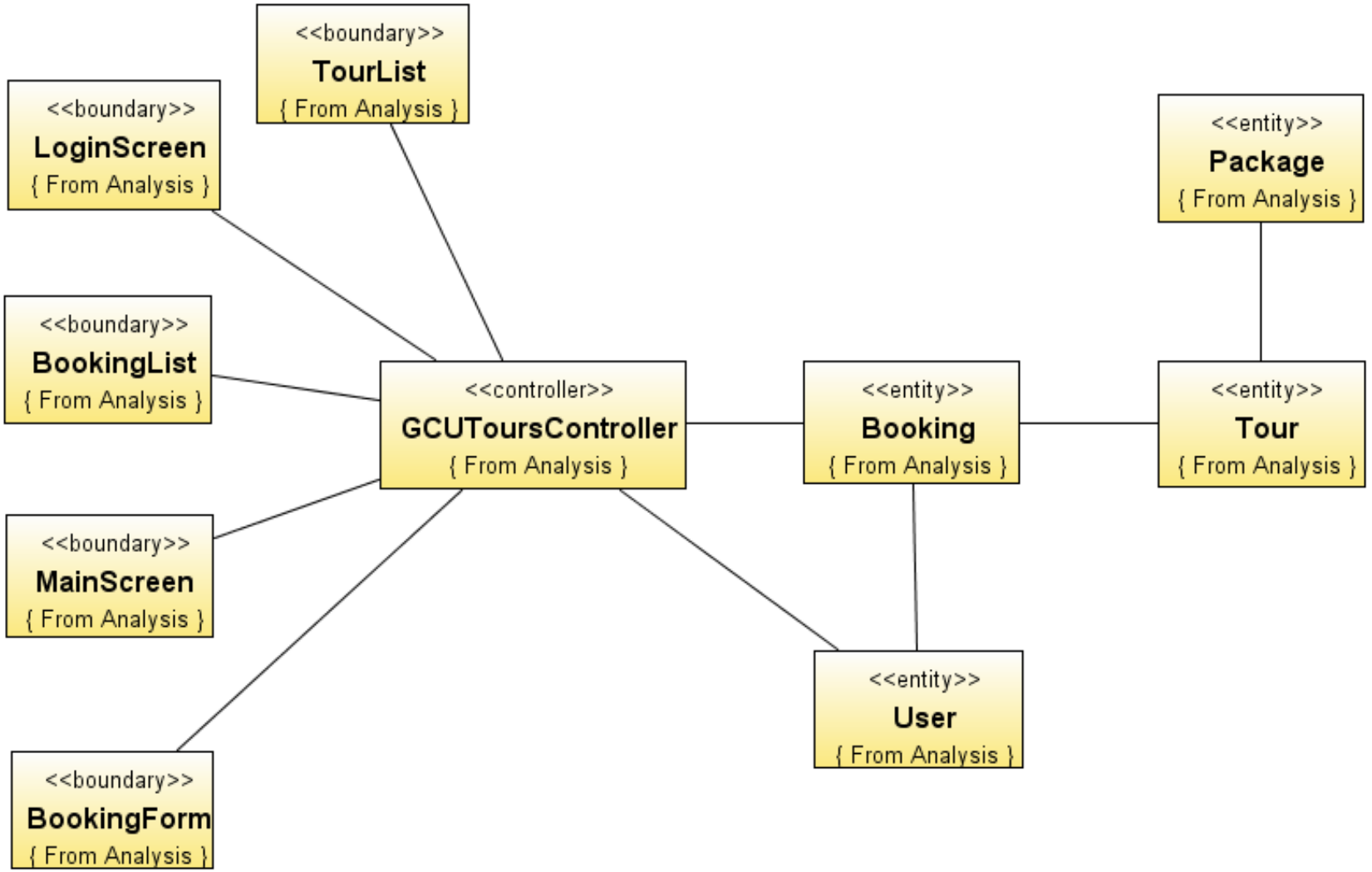
# The Architecture



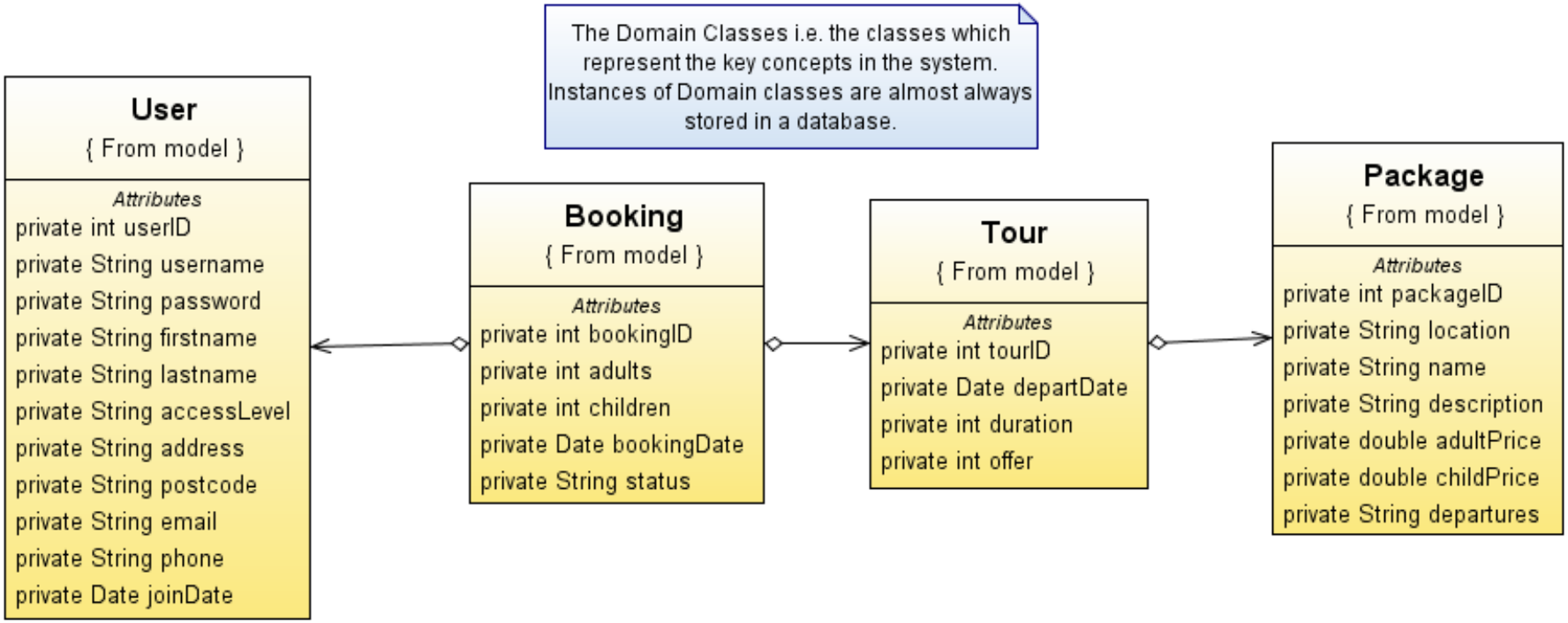
# The Analysis Model (icon)



# The Analysis Model (non icon)



# The Domain Classes

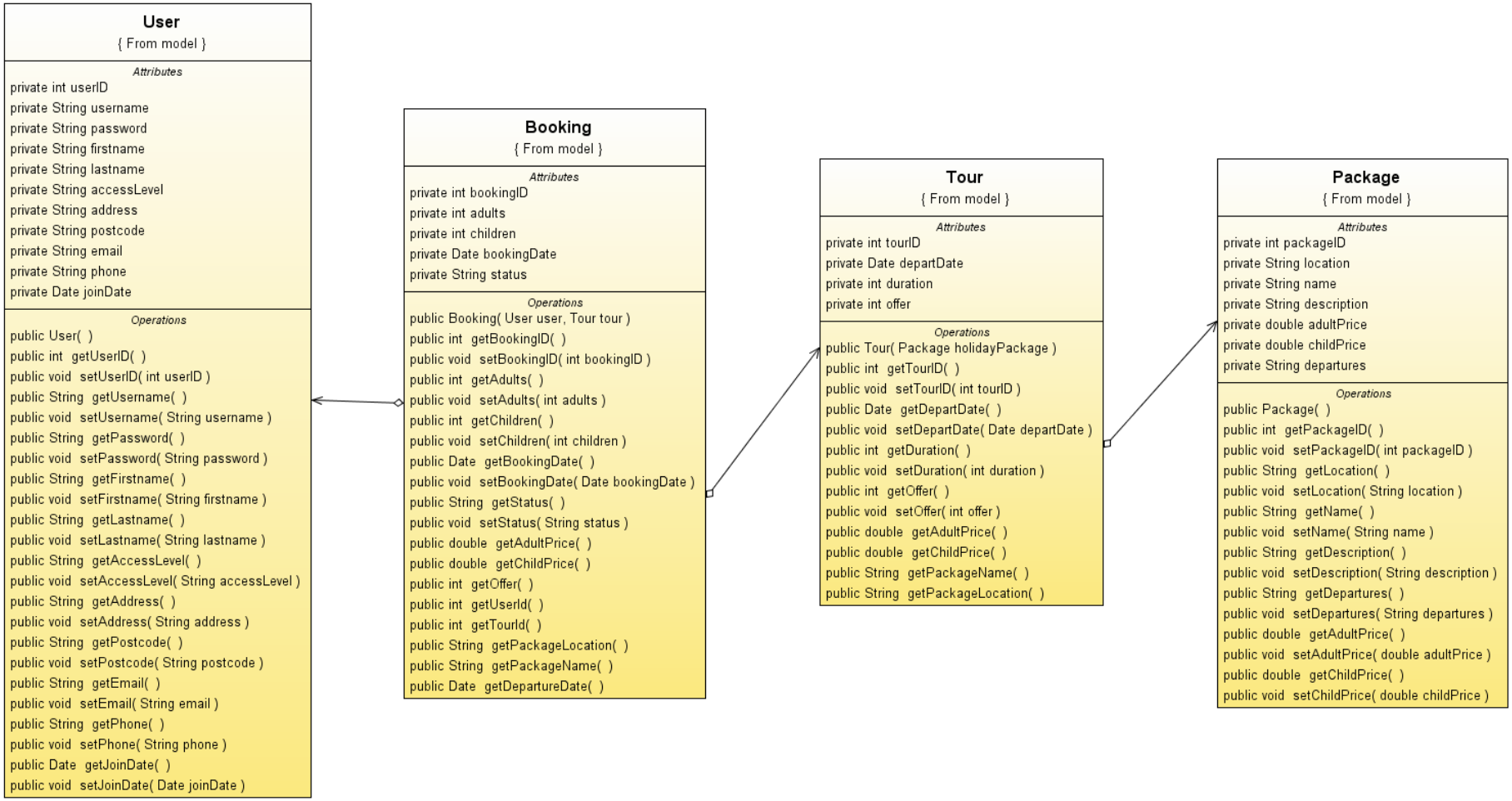


# The JavaDB Database Tables

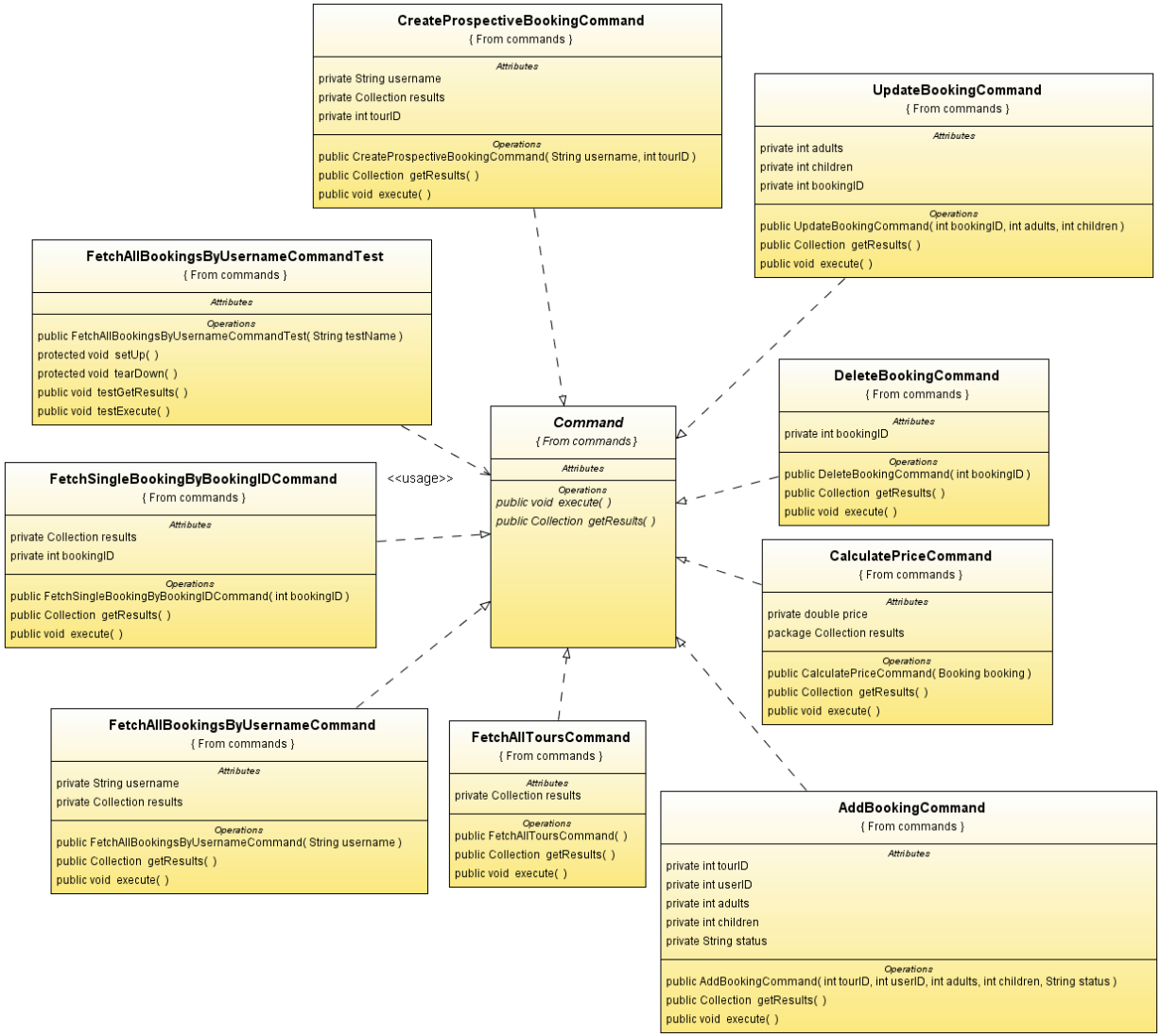
- **The JavaDB database has Four tables to support the saving of instances of the User, Booking, Tour and Package classes**
- **The tables are:**
  - **USERS for instances of the User class**
  - **TOURS for instances of the Tour class**
  - **BOOKINGS for instances of the Booking class**
  - **PACKAGES for instance of the Package class**
- **A single row in each table is used to hold each class instance.**

**View Database tables using Netbeans**

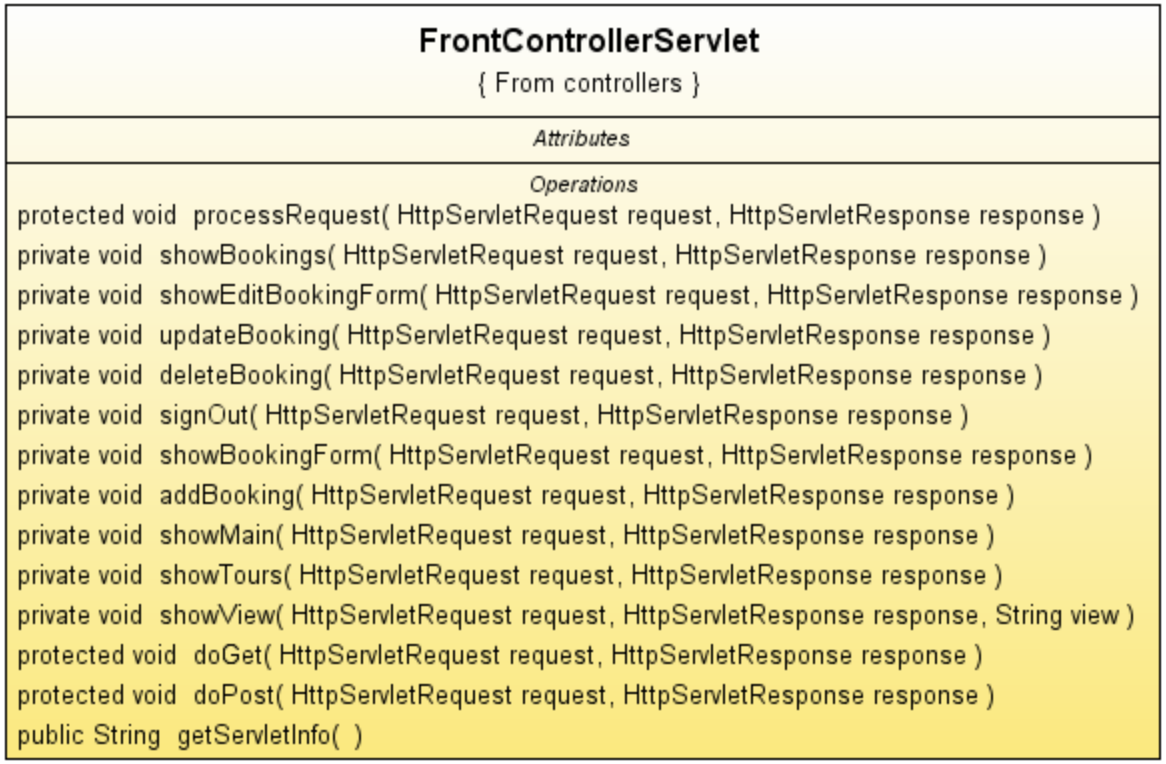
# Design Model 1 Domain Classes



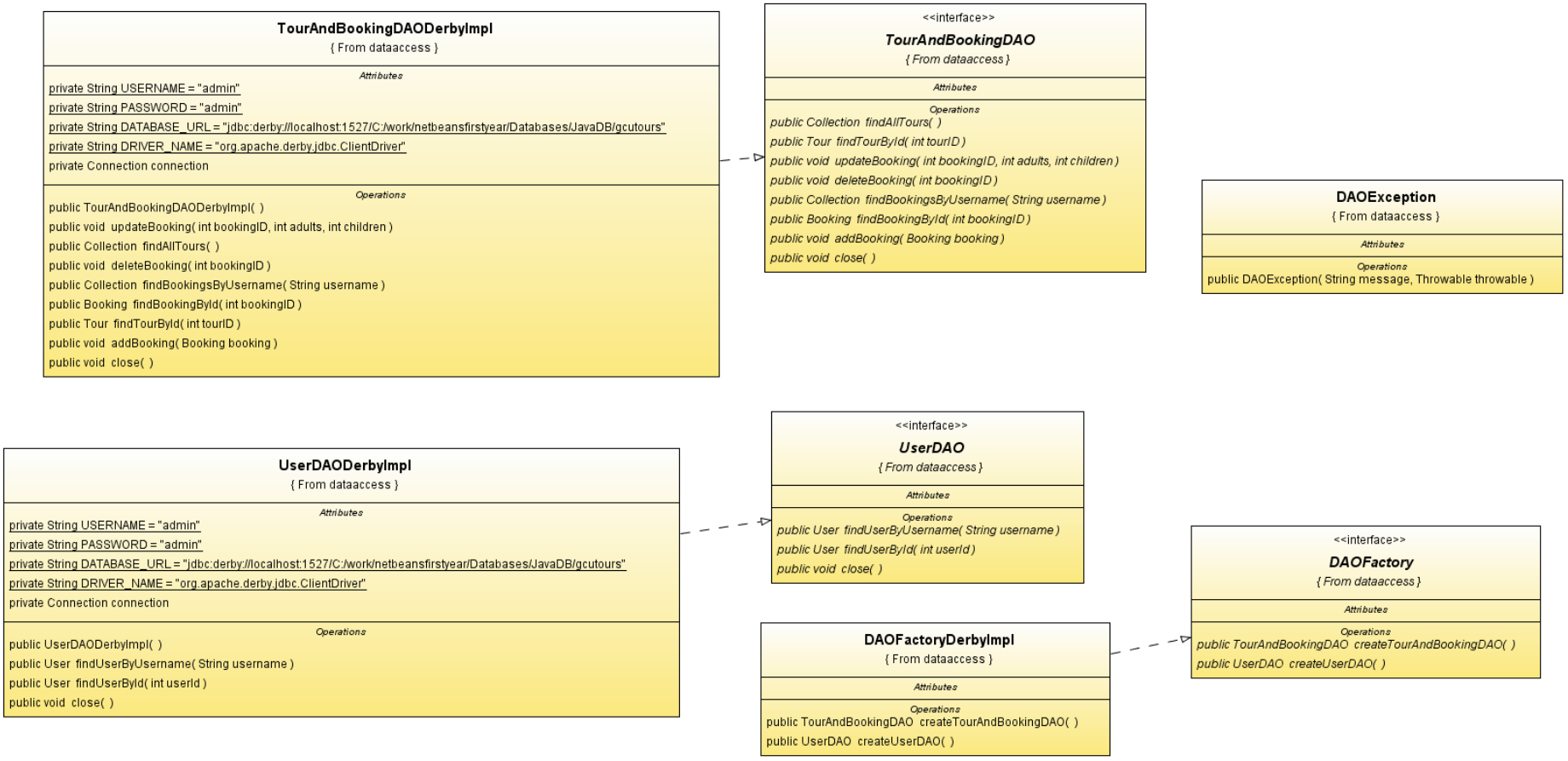
# Design Model 2 Commands



# Design Model 3 Controllers

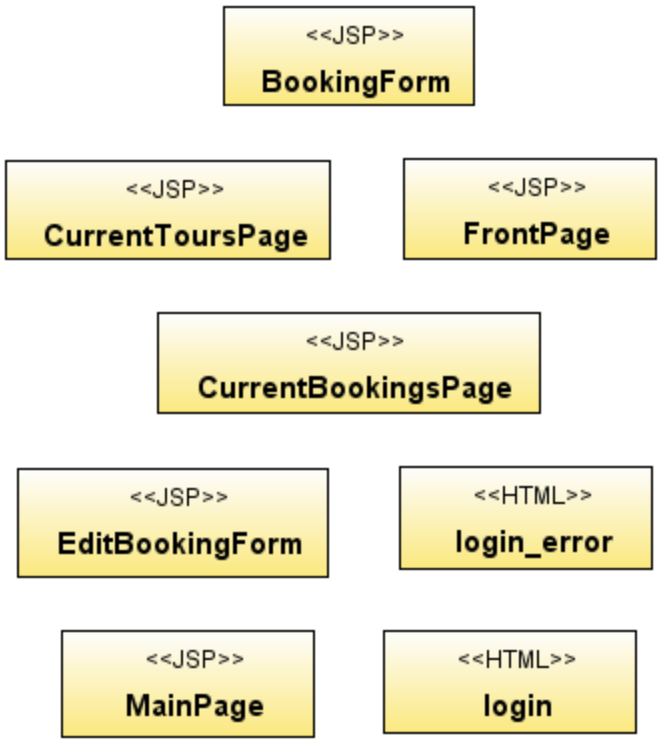


# Design Model 4 Data Access

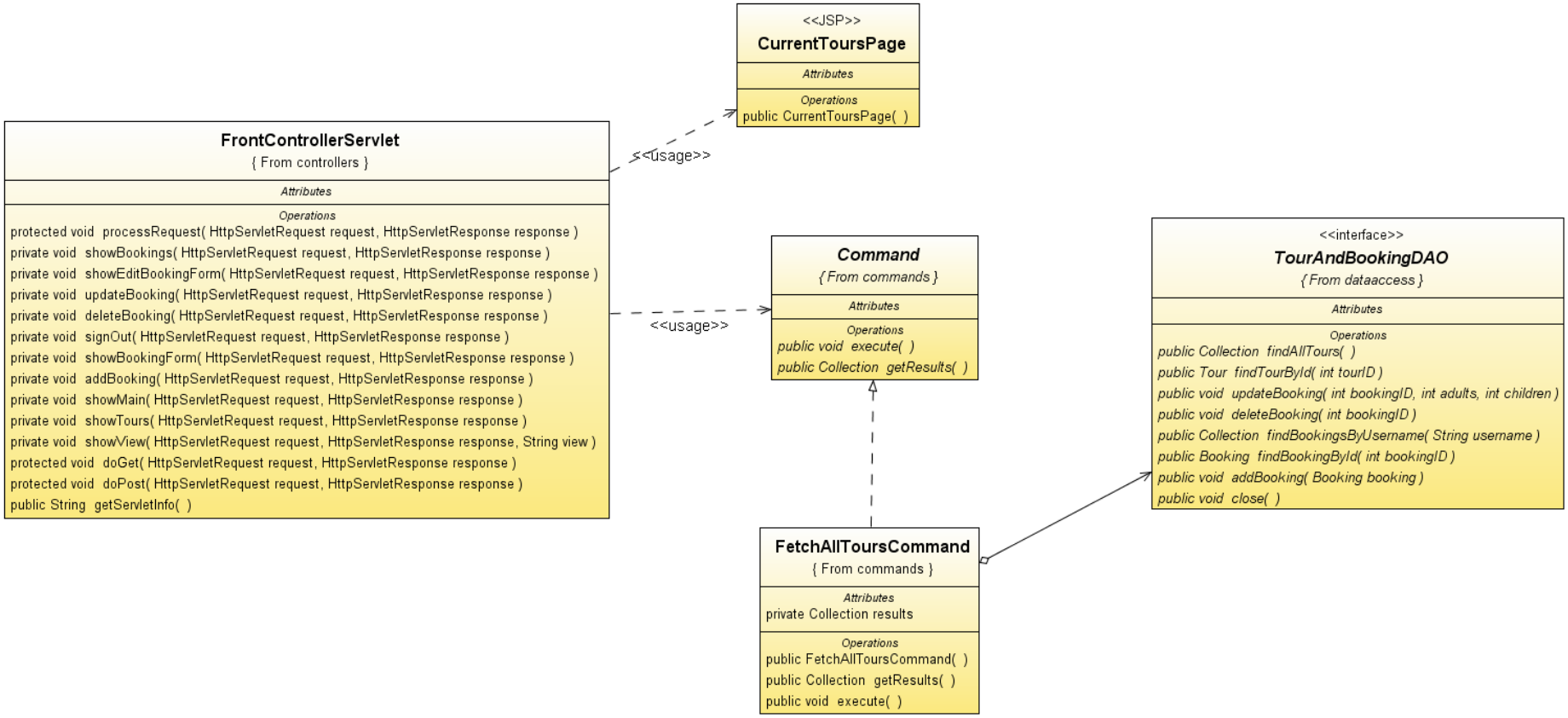



**Open diagram in netbeans**

# Design Model 5 User Interface



# Design Model 6 Misc



# Case Study Demo