CS307 Project 2: 12306 System

- It is a group project, and the size of group is two or three.
- The presentation time would in 15th teaching week and 16th teaching week.
- Yan can use any database and program language you like.

Introduction

Design a database about Chinese railway like [12306 website](#) and provide command line interface for that.

Basic Requirements

1. The information of trains and stations must be authentic, and you need to insert those authenic data as much as possible. Your data contains all train informations of departure stations and destination stations in GUANG DONG province at least.

2. For all main processes or requirements that you are designed, given command line interface that can be invoked by outer layer.

3. Your system should provide two different users (Different from user privilege in database), the one is passenger the other is administer.

   - Passenger can search train information, reserve tickets, refund a tickets, query order form etc.
   - Administer can add, delete or update a train or station, etc.

4. Keep security and prevent SQL injection.

5. Enrich system requirements based on all decriptions above.

Challenging Requirements

1. Optimize your database by using user privilege, index, view, procedure or trigger in a reasonable way.
2. Adding more complex requirements: such as journey recommendation, etc.
3. Using connection pool, ORM frames or others frames resonably.
4. Better interface design, like using GUI, webpage or wechat mini-program, etc. (Encourage to learn, but not much feedback about the grade in this course)
5. Support high concurency munipulation. Such as ticket reserving simulation.

Rules for grouping

1. There are **at most 12 groups** for each presentation time.

2. The order of your presentation in each time is by ascending order of your group number

3. Recommend you to find your group member from the same lab.

4. Maybe more groups want one presentation time, so that your presentation time are based on:

   - All members are coming from the current lab.
   - Fill in first, choose first.

5. The deadline of filling in your group information is April. 19th.

6. After the deadline, if the count of your group member is not 2 or 3, or you haven't filled in anything, we will help you to find a group member and presentation time.

7. For different presentation time and different group size, your grade would be calculated as following table. Your grade can not exceed 100.

	Presentation in the 15th week	Presentation in the 16th week
Two-members	basic * 0.85 + challenging * 0.15 *1.1	basic * 0.85 + challenging * 0.15
Three-members	basic * 0.8 + challenging * 0.20 *1.08	Basic * 0.8 + challenging * 0.2