Modern Software Development Technology (1610311W)

Deadline: 23:59, November 13, 2016 (Sunday)

Project Guideline

The project of the Modern Software Development Technology course aims at evaluating your software development skills, in particular on the programming level for object-oriented programming.

Please carefully read the following steps explaining what you need to do to complete your project and what you should expect:

- Build a group of 4 students and inform me via e-mail (**mmisir [at] nuaa.edu.cn**), by 23:59, 25 September, 2016 (Sunday)

- Then, a project topic will be *randomly* assigned to each group by 28 September, 2016 (Tuesday)

- The assigned projects can be achieved using any programming language allowing object-oriented programming, together with any other tools you are familiar with, e.g. MySQL for database.

    - It is strongly suggested to use a project management/hosting service such as **github.com** and **bitbucket.org**

- For submission, all the software files (code, database tables etc.) should be provided

- Besides that, a report should be delivered, including:

    - A problem statement

    - A list of requirements

    - A software design referring to its subsystems and internal connections, with a discussion on why you need those subsystems and the reasons behind the connections between the subsystems

        * Each group member should be responsible on the implementation of, at least, one subsystem and the workload among the group members should be fair (**a bad example**: 1 subsystem by one member, 5 subsystems by another member and no subsystems for the rest).

        * Each group member should also contribute to the overall design and the report preparation. The contribution of each member should be explicity mentioned.

    - Internals of the subsystems, i.e. the classes in each subsystem together with their relations such as inheritance

    - A set of representative screenshots of the running system, with some test-cases

- After all the projects are submitted, each report of a group (**A**) will be given to another, *randomly* selected, group (**B**) for evaluation. Then, **A** will perform a short presentation on their project to convince **B**. At the end, **B** should submit a short evaluation report of 1-2 pages discussing the good elements and the issues in the **A**'s project.

Although having a good user interface is appreciated, please keep in mind that the general system design and classes' internals together with their relationships are more critical.

Projects

The project descriptions are not detailed, only titles and some example features are given, since it is expected that each group will come up with their own *requirements* specifications. Please make sure that each project is designed as general systems that can be used by different customers.

- **Group 1**: 191600122, 191600123, 191464134, 191364115

  - **Mail Management System**: Maintain mail/post details, offer different services like home pickup, provide delivery timeline/updates etc.

- **Group 2**: 191464104, 191464110, 191464112, 191464135

  - **Tourist Assistant**: Hold information on the tourist attractions, provide ticket services, offer personalized travel plan generation etc.

- **Group 3**: 191464111, 191464136, 191464137, 191364120

  - **Sports League Manager**: Provide information on the teams, their game schedules, players' details and stats etc.

- **Group 4**: 191364102, 191364103, 191364130, 191364131

  - **Vehicle Repair Service Automation**: Offer repair services for different vehicles, involve inventory management, status tracking system, reminder service etc.

- **Group 5**: 191464101, 191464107, 191464115, 191464133

  - **Restaurant Management Tool**: Keep track of menus, inventories/ingredients, expenses, income etc.

- **Group 6**: 191464117, 191464122, 191364111, 191364111

  - **Online Customer Service**: Have discussion/message screens, keep product information, save complaints, match them with solutions, deliver reports etc.

- **Group 7**: 191464129, 191464130, 191464132, 191464138

  - **Factory Production System**: Monitor production lines, keep track of produced goods together with the required elements/ingredients for production, have production orders etc.