

Database Management System - Software Development

Workshop II

Joint Project Basic Requirements

2020 spring

This project is to build a dynamic website. It is a group project in which four students will collaborate to develop the website.

In the process of building the system, you will experience the full life cycle of software engineering. Find a local small business and talk to them to understand their daily business process. It is OK for multiple students to go work with the same business. Tell them you will build a website for them to help bring their businesses online. For example, you may pick beauty parlor (美容院), kid's training institutes (各种课外补习班), fitness center (健身中心), restaurants, etc.

If you have problem finding a customer, you may contact your teaching assistant. They will be your client and offer *user requirements* on a first-come, first-serve basis.

What you need to do is the following:

1. Communicate with the business people and collect user requirements.
2. Write Software Requirement Specification based on the result of step 1. (SRS template is provided)
3. Submit the SRS.
4. Explain the Requirements to your customer once teachers approved the SRS.
5. Write Software Development Specification once the customer is happy with the requirements. (SDS template is provided)
6. Your website needs to contain the following:
 - **UI**
 - (1) Your website needs at least ten pages.

(2) Use Bootstrap to create professional user interfaces, which includes navigation bars, logo, footers, and data validation.

- **Business Logic**

(1) Your website should allow user registration and login. At least two user types should be offered. For example, suppose you are building a bookstore website, your user types could be:

- owner
- registered user
- anonymous visitor

(2) Your website needs to include at least four features. The more features you have, the higher score you will earn. What is a feature? Feature is a workflow that can allow the user to perform a complete task. Take the example of bookstore, the features could be:

- The owner add new books to the store
- The owner view purchasing data analysis, etc
- The user orders books and leaves the books in the shopping cart
- The user check out and pay
- The owner, the user and the visitor search for books

- **Database Design**

(1) There should be at least **nine entities** and **six relationships** in the ER diagram.

(2) On average, each table must have no less than 10,000 records. There is at least one table consisting of more than 50,000 records. (Note: Not all the records have to be real but they should be realistic. You may generate records using a program.)

Your Database course teacher will provide other database requirements.

Schedule of the project

Week 06	Release
Week 08	Submit SRS
Week 10	Submit SDS
Week 12	Submit the 1st version including UI Implementation, database, at least one feature.
Week 13	Submit the 2 nd version including all the features.
Week 14	Submit the Testing Report and do the presentation in class.
Week 15	Submit all code and updated documentations.