

COMP 3111: Software Engineering

Activity 1: Initial System Implementation and Acceptance Testing (REVISED Mar. 13)

Assigned: February 2, 2016
Due date: March 19, 2016, 11:59 p.m.

Value: 20% of project grade
Activity type: Individual

HKInvest has distributed a problem statement for the development of a web-based securities portfolio management system. In this project activity you are required to implement a subset of the requirements given in the problem statement for the web-based securities portfolio management system.

INITIAL SYSTEM IMPLEMENTATION

In this activity you are required to implement the following functionality given in the problem statement.

- Requirement 1 – Account application
- Requirement 2 – Client login accounts (EXCLUDING UPDATING CLIENT INFORMATION)
- Requirement 3 – Securities browsing and searching (REMOVED)
- Requirement 5(b) – Client support tools: *Currency conversion*
- Requirement 6(b) – Report generation

Your initial system implementation *does not* have to support any of the other functionality of the web-based securities portfolio management system described in the problem statement (although it will be required to implement the remaining functionality later on). Note that some information pertaining to the requirements that you are required to implement for Activity 1 may be stated in the other requirements of the system as described in the problem statement. Therefore, *do not ignore reading and understanding all of the requirements*.

The implementation environment for your system will be Visual C# and ASP.NET on Intel-based PCs running Windows 7. You will also need to store data (about clients, accounts, etc.) for which you will use SQL Server. Visual Studio will be the integrated development environment (IDE).

While the majority of the requirements for the initial system implementation will be completed during the labs each week, there will be a few requirements that you will have to complete outside the lab period. Therefore, be sure that you are familiar with and understand all of the requirements for the initial system implementation and complete those that are not covered in the lab before the due date for the initial system implementation.

INITIAL SYSTEM ACCEPTANCE TESTING

To have confidence that a software system meets the client's needs testing is a vital activity. In general, testing has two main purposes: (a) to make sure that the right product has been built (i.e., all the requirements have been met), often referred to as *validation*, and (b) to make sure that the product has been built right (i.e., there are no defects), often referred to as *verification*. While validation focuses on a system's external behaviour (i.e., the functional level), verification focuses on a system's internal workings (i.e., the code level).

This activity is concerned with both validation and verification of your initial system implementation. Acceptance testing of the initial system implementation that you submit will be performed by the course instructor and TAs using a set of acceptance test cases designed to validate and verify that your initial system implementation meets the requirements stated previously and that it correctly handles user input without generating runtime errors.

WHAT AND WHEN TO SUBMIT

Submit the *HKInvestWebApplication* folder of your initial system implementation *by 11:59 p.m. on Saturday, March 19*. Note carefully the date and time!

HOW TO SUBMIT YOUR WEB APPLICATION FOLDER

1. Compress (zip) your *HKeInvestWebApplication* folder.
2. Type the URL <https://course.cse.ust.hk/cass/submit.html> in the browser address bar to access the Course Assignment Submission System (CASS) (see Figure 1).
3. Login it with your CSD account and password (the account that you use to login on the lab computers).
4. Select the course “COMP3111” in the course dropdown list at the top right of the CASS submission page.
Be careful to select the correct course!
5. Click the link “Submit File” at the top left of the CASS submission page.
6. Choose the assignment name in the “Assignment Name” drop down list in the CASS submission page.
7. Select the file to upload by browsing to your compressed web site folder.
8. Click the “Submit” button.

A message will be displayed indicating whether the submission is successful or not. Clicking the link “Check Log (all)” in the CASS submission page will show a log of all your submissions.

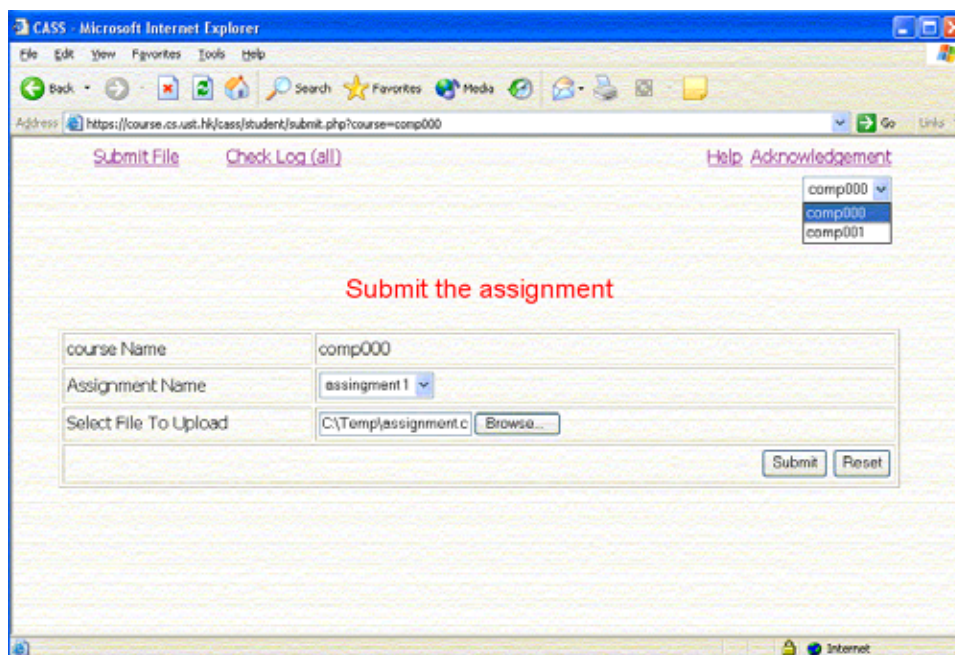


Figure 1: CASS (Course Assignment Submission System) submission page.

Notes

- CASS only accepts files for upload. Therefore, you need to compress (zip) your web site folder before you can upload it. (In Windows, right-click the folder and select “Send to→Compressed (zipped) folder”).
- CASS allows multiple submissions for an assignment. If the submitted files have the same name, then a timestamp will be added to the filename to distinguish between submissions.

Instructions for how to use CASS are available at <http://cssystem.cse.ust.hk/UGuides/cass/student.html>.

CLARIFICATION AND AMENDMENT OF PROJECT/ACTIVITY REQUIREMENTS

Further clarification of general issues related to the course project is provided in the *Project General Q&A* module of the course’s Canvas web page. Please read this information.

Furthermore, clarification questions can be asked of the client representative regarding the requirements stated in the problem statement. **All questions should be submitted to the client representative by email at 3111rep@cse.ust.hk.** The submitted questions and their replies will be posted on web pages in the *Project Specific Q&A* module of the course’s Canvas web page. **You should check these web pages on a regular basis for further clarification and amendment of project requirements.** Any requirements added or amended on a web page in the *Project Specific Q&A* module of the course’s Canvas web page will become part of the project requirements.