CS3343 Software Engineering Practice

BSC4 Project Group 6

Project Plan

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# Project Description

Background

This project aims at produce a program that can help user to decide how to allocate courses in time table.

In every semester, students in university will need to register courses, but choosing courses to register may be difficult because of the reasons below.

1. Courses may have conflict on time slot so some of the course cannot add to time table with others.
2. Courses will have lecture and tutorial so one course will occupies more than one time slot.
3. Course may have different combinations of lecture and tutorial.
4. Sections may occupies more than one hour of time slot.

Objectives of project

Expectation

This project will produce a program that will help user to generate a time table.

User only need to input a text file that contain the information about course that user want to take. The course first input course in the input file will mean that the course have higher priority, and the same imply on the section of the course.

The information of course and section inside the input file will be in XML format.

Aims

Aims 1:

Detect time conflict of sections in courses so that the time table will be possible for user to register

Aim2:

The program should produce time table that contain as much high priority course and section as possible.

# Summary of Methodology

Software development methodology

1. This project will have 3 release, each release should provide more functions that our team have been decided to implement before.
2. Development will be in test-driven approach, which means testing will start inside the development period and the development of program will base on the feedback of the test. Members will try to develop program that can full fill the requirement of the test (passing the test case.)

Role of members

Project Manager: CHAN Ho Man (53078369)

Assistant PM: CHEUK Yik Sum (53012319)

Scrum Master: CHAN Ho Man (53091240)

Pair programmers: LEE Man To (53075299)

HO Sui Cheong (53117178)

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# Work Breakdown Structure

1. define problem
   1. Define a daily problem that a user may face to.
   2. Make a user story that describe the program that can help user to solve a problem.
2. design solution
   1. Define the requirements for the program.
   2. Decide the implementation of the program abstractly.
      1. Members think about different implementation that can solve the problem.
      2. Discus about the Pros and Cons of each of the implementation method.
      3. Members decide which method will be used.
   3. Define set of function that need to be implemented.
   4. Decide the structure of the program
      1. Design Classes that can full fill each of the function’s requirement.
      2. Build a class diagram that describe the relationship between each Class.
3. start developing
   1. start developing for release 1
      1. Decide the functions that should include in release 1.
      2. Distribute task to each of the team member.
         1. Divide the project into smaller task sets.
         2. Distribute task set to members.
      3. Each member work on their task set.
   2. start developing for release 2
      1. Decide the functions that should include in release 2.
      2. Distribute task to each of the team member.
         1. Divide the project into smaller task sets.
         2. Distribute task set to members.
      3. Each member work on their task set.
   3. start developing for release 3
      1. Decide the functions that should include in release 2.
      2. Distribute task to each of the team member.
         1. Divide the project into smaller task sets.
         2. Distribute task set to members.
      3. Each member work on their task set.
4. Testing
   1. Testing for functions for release 1
      1. Unit Test
         1. Build up test case base on the requirement.
         2. Get test cases running result.
         3. Report result to developer.
      2. System test
         1. Build up test case base on the requirement.
         2. Get test cases running result.
         3. Report result to developer.
   2. Testing for functions for release 2
      1. Unit Test
         1. Build up test case base on the requirement.
         2. Get test cases running result.
         3. Report result to developer.
      2. System test
         1. Build up test case base on the requirement.
         2. Get test cases running result.
         3. Report result to developer.
   3. Testing for functions for release 3
      1. Unit Test
         1. Build up test case base on the requirement.
         2. Get test cases running result.
         3. Report result to developer.
      2. System test
         1. Build up test case base on the requirement.
         2. Get test cases running result.
         3. Report result to developer.
5. Deployment
   1. Release 1
   2. Release 2
   3. Release 3