Test

Introduction of Black box testing

Black box testing, also known as functional testing, it is through the test to detect whether each function can be used normally. In the test, the program will be regarded as a black box which can not be opened, regardless of the internal structure and internal characteristics of the program, the program interface to test, it only checks whether the program function in accordance with the provisions of the specification requirements for normal use, Whether the program can properly receive the input data to produce the correct output information.

Black box testing focused on the external structure of the program, regardless of the internal logical structure, mainly for software interface and software functions to test.

Test cycle arrangements and test methods

Since we have adopted the agile software development model to our project, therefore, we did not stop testing at every stage of the development process. After each iteration, we conducted a centralized test for the new parts and pervious parts. The test procedure are as below:

Iteration 1: Decide the overall features of the system, and make a general view about the logical between the features.

Test:

No specific implementation, so the test link to stay in the logic test.

Iteration2: Implement basic features of users, and managers.

Users:

1. Login/Logout.
2. Update personal information.
3. Register.
4. View Courses and enroll courses.

Manager part1 user information management:

1. Add a user.
2. Delete a user.
3. Update a user's personal information.
4. Check the user's account details.

Manager part2 courses information management:

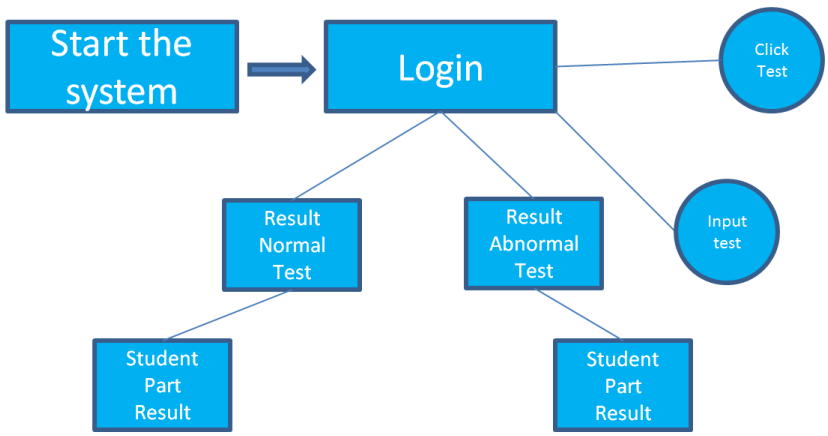
1. Add a course.
2. Delete a course.
3. Update a course's details.
4. Check the course's details.

Manager Part3 Enrollment information management:

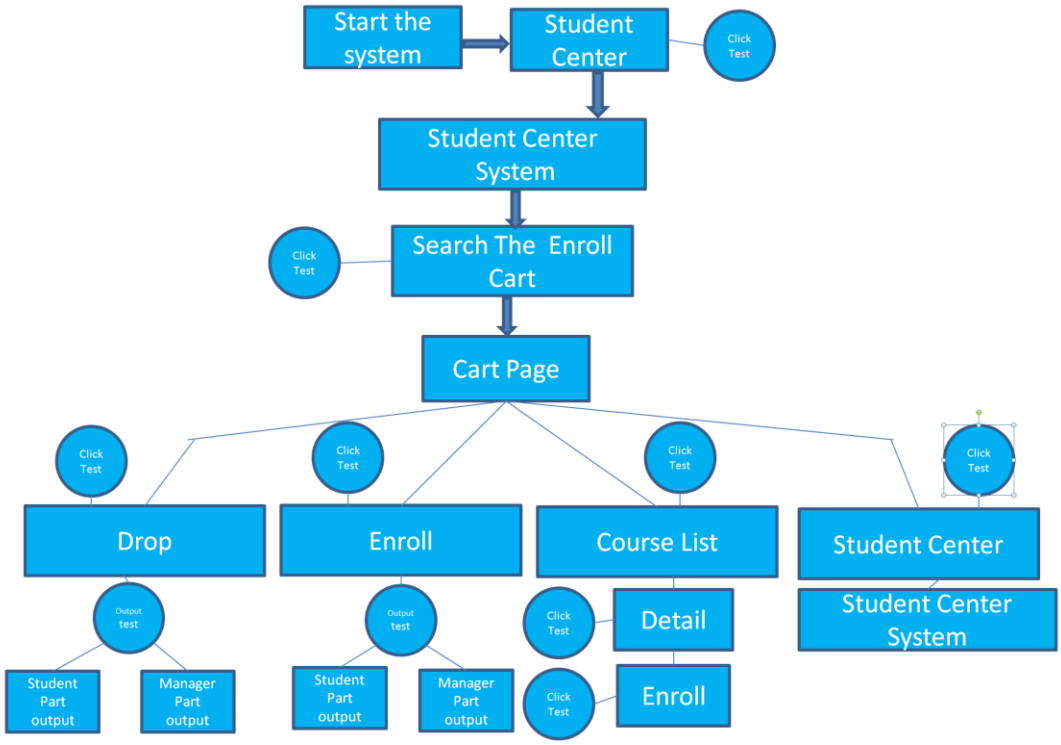
1. Check all the enrollment information divided by user name.
2. Update the enroll time of a user for a specific course.
3. Delete a user's course that have already enrolled.

Test:

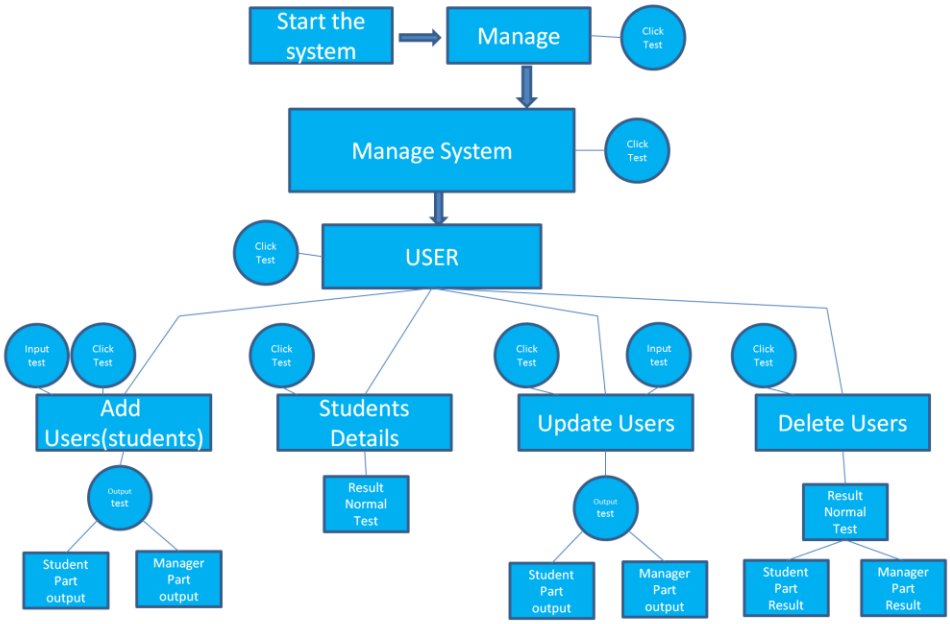
Users part 1 (Test flow chart):



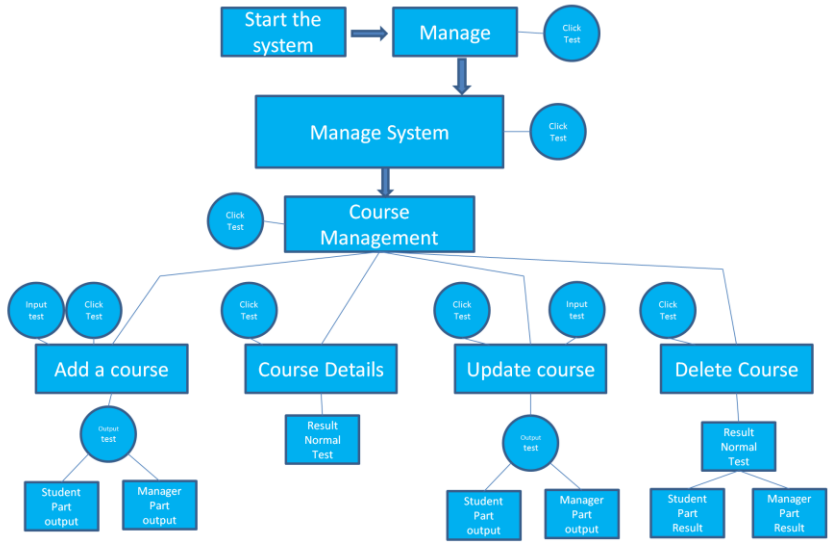
User part 2 to 4 (Test flow chart):



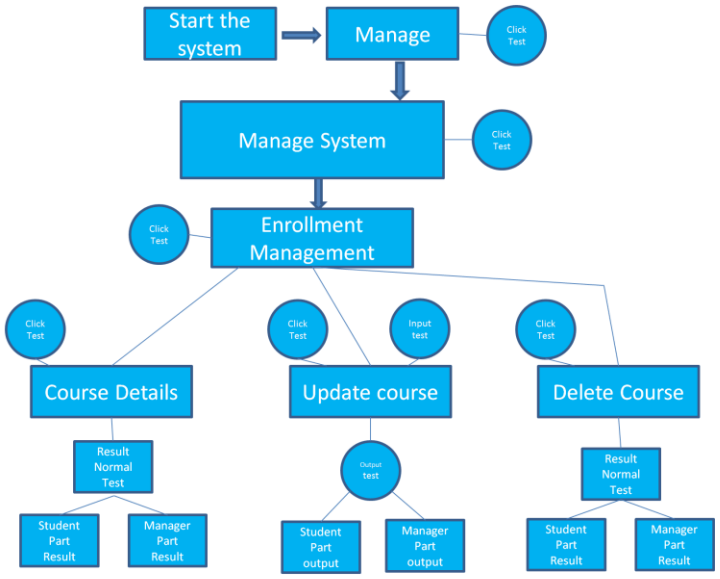
Manager Part1 (Test flow chart):



Manager Part2 (Test flow chart):



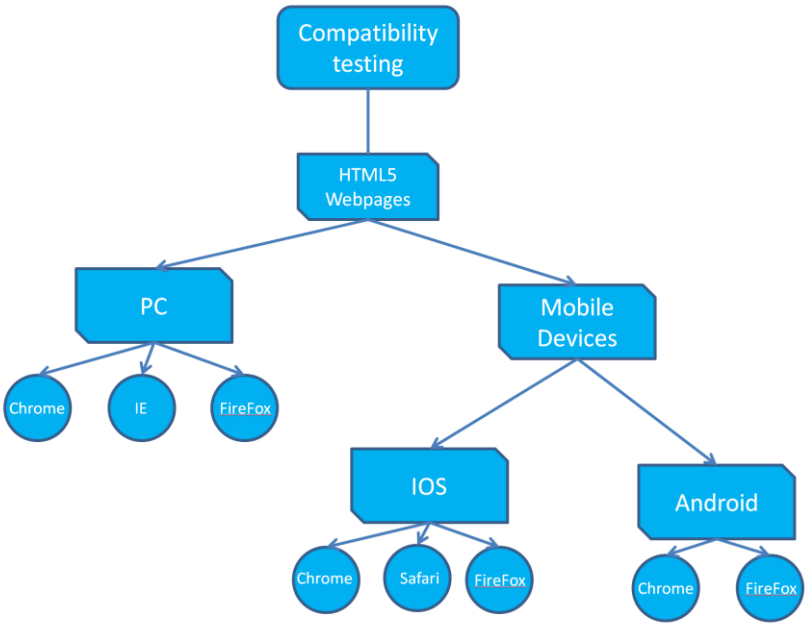
Manager part3 (Test flow chart):



Iteration3: The View layer, HTML5 Web pages will be embedded in the system.

In this iteration, because there is no new logic was added to the system, we only tested compatibility of the web pages for different platforms.

Test:



Iteration4: Sign in part for the system.

User part:

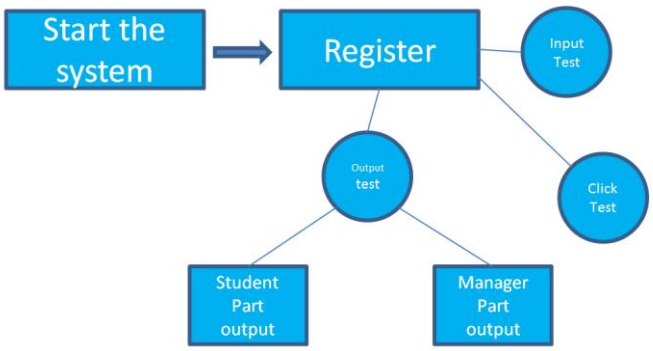
1. Sign-in for a course.

Manager part:

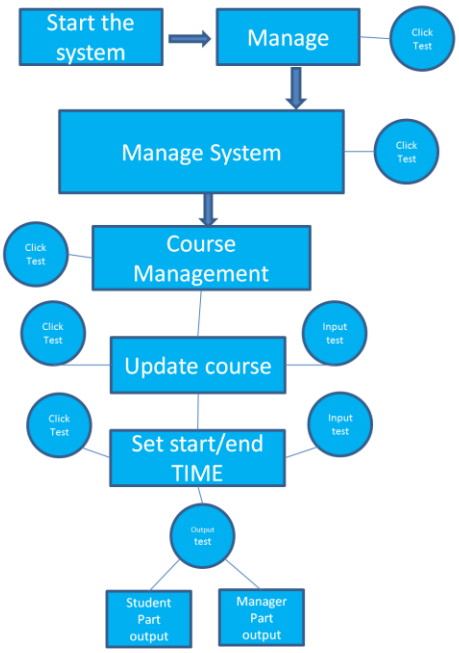
2. Set up a sign-in time zone for a course.

Test:

User part (Test flow chart):



Manager part (Test flow chart):


Start the system
Manage
Click Test
Manage System
Click Test
Click Test
Course Management
Click Test
Input test
Update course
Click Test
Input test
Set start/end TIME
Output test
Student Part output
Manager Part output