**Assignment no. 4**

**Q. 1.** You have been asked to test a method called ‘catWhiteSpace’in a ‘Paragraph’object that, within the paragraph, replaces sequences of blank characters with a single blank character. Identify testing partitions for this example and derive a set of tests for the ‘catWhiteSpace’ method. (5 marks)

**Q.2.** Below is a use case description for a library management system where the librarian maintains member details. It contains multiple scenarios. Choose any one scenario where scenario describes one way in which the system might be used. For the chosen scenario, write down the features that you as a tester will test. (10 marks)

**Use Case Name :**

Maintain Member Details

**Introduction:**

This use case enables the librarian to maintain all the LBMS’s member details, which includes adding, updating, and deleting members from the system.

**Actors :**

Librarian.

**Pre-Conditions :**

Before this use case begins, the librarian must be logged on to the system.

**Post-Condition :**

Member details are update, added, or deleted if the use case was successful. The system state remains unchanged if the use case was not carried out.

**Basic Flow :**

The use case begins when the librarian wishes to add, update, or delete a member from the system.

a. This system requests the librarian to specify the action they wish to perform, which could be to add, delete, or update a member details.

b. One of the sub-flows executes upon been chosen by the librarian.

* If he/she chose add a member, the sub-flow i executes.
* If he/she chose update a member, the sub-flow ii executes.
* If he/she chose delete a member, the sub-flow iii executes.

1. Add Member
   1. The system requests the librarian to enter member details. This include: mem\_no, mem\_fname, mem\_lname, mem\_address, mem\_city, mem\_state, mem\_postcode, mem\_phone, mem\_email, mem\_occup, mem\_dor, mem\_dob, user\_id, gende, and personalImage.
   2. b. A unique mem\_no is generated by the system. c. Upon provision of these details, a member is added to the system.
   3. Upon provision of these details, a member is added to the system.
2. Update Member
   1. The system requests the librarian to click on the mem\_no in the row containing the member details they wish to update.
   2. The system retrieves and displays the member details.
   3. The librarian makes desired changes in the various inputs containing the member details.
   4. Once the librarian is done doing the changes; the system updates the member details.
3. Delete Member
   1. The system requests the librarian to click on the row containing the mem\_no to be deleted.
   2. The system prompts the librarian to confirm the deletion action, and then it fetches the respective member details to be deleted.
   3. System then deletes the member from the system.

**Alternate Flow :**

1. Member was not found
   1. An error message is issued by the system in case a member was not found in any one of the sub-flows carried out.
   2. The librarian then cancels the operation ending this use case.
2. Cancelled Update
3. If in the update sub-flow the librarian decides to cancel the update then the process is terminated and basic flow restarted from the beginning.
4. Cancelled Delete
5. If in the delete sub-flow the librarian decides to cancel the deletion then the process is terminated and basic flow restarted from the beginning.

**Special Requirements**

None

**Use Case Relationship**

None

**Q.3** Choose any application, be it desktop, mobile or web application and apply stress testing on it. One example of stress testing is copying huge amount of data in notepad which causes it to stop responding. Specify how you stress tested the application of your choice and what was the output. Explore reasons for the resulting behavior and write them down. Provide screenshots to demonstrate the testing procedure. (5 marks)