CSE3311 Summer 2013
Quiz 4

Name: _____

Student#: _____

CSE Account: _____

Points: _____ /9

Show all work clearly and in order, and underline your final answers. Use Eiffel notation when necessary, **sketch all relevant graphs** and write down all relevant mathematics.
Write legibly! Unreadable work will not be marked!
You have 30 minutes to take this 9 points (3%) quiz.

1. (_____/4 *points*) In the space below compare Adapter and Facade Patterns. Show how they are constructed and compare their usage contexts. Use a clear structure e.g. points/table.
Write legibly!

2. (_____/5 *points*) You are asked to build a module for a library implementing part of a User Interface for a library system responsible for the book borrowing process (search, reserve and borrow). Your goal is to identify main classes and relationships among them and answer the following question:*Which patterns that you know can be applied in the design? Explain your choice.* Following constraints should be captured by the design:

- There are three types of users: faculty, student, external

- User can see following screens: initial, search, reserve, confirm, account and help

- There is a graph describing transitions between screens

- A number of books that can be borrowed by the user depends on the user type

- Type of the user can change e.g. external can became a student or faculty

- A book can have one of the following statuses: *on-shelf (O), borrowed (B), reserved (R).* (Changes $O \rightarrow R \rightarrow B \rightarrow O$)