Comp 132 Self Study 4 – Thursday February 28, 2019

Question 1

Use inheritance to create an exception superclass (called ExceptionA) and exception subclasses ExceptionB and ExceptionC, where ExceptionB inherits from ExceptionA and ExceptionC inherits from ExceptionB. Write a program to demonstrate that the catch block for type ExceptionA catches exceptions of types ExceptionB and ExceptionC.

Question 2

Write a program that illustrates rethrowing an exception. Define methods someMethod and someMethod2. Method someMethod2 should initially throw an exception. Method someMethod should call someMethod2, catch the exception and rethrow it. Call someMethod from method main and catch the rethrown exception. Print the stack trace of this exception.

Question 3

Write an application that uses random-number generation to create lines of the poem. Use four arrays of strings called article, noun, verb, preposition, and adverb. Create a line by selecting a word at random from each array in the following order: article, noun, verb, preposition, article, noun, and adverb. As each word is picked, concatenate it to the previous words in the line. The words should be separated by spaces. Lines of the poem should start with a capital letter. The application should generate and display 20 lines long poem. First 10 lines are supposed to be separated from second ten lines. 9th and 10th lines are supposed to be the same, and 19th and 20th lines are supposed to be the same.

The article array should contain the articles: "the", "a", "one", "some", "that"; the noun array should contain the nouns: "boy", "girl", "love", "town", "street", "car", "cat", "table"; the verb array should contain the verbs: "drove", "jumped", "ran", "walked", "skipped", "loved", "smiled", "waved", "hugged"; the preposition array should contain the prepositions: "to", "from", "over", "under", "on"; the adverb array should contain the adverbs: "silently", "happily", "fast", "noisy", "foggy", "heavily".

Question 4

In the file movies.txt attached, find a list of movies together with their actors. Every line represents a new movie starting with the movie name. Year of release is in the parentheses. Actors are separated with "/" characters, in format /Surname,Name/Surname,Name/…

- Read the file given using Scanner. Be able to extract movie name, release year, actor names, and actor surnames.
- Let the user specify M number of letters. Print all movies having these letters in their names.
- Let the user specify the lower year limit. Print all movies released after this year.
- Let the user specify one actor name. Find all examples of actors with that same name in the file and print them.