Tutorial 10: Class diagram

Task1:

In this task, you will practice requirement analysis using Class diagram and Use case diagram.

1. Program xref: produces an index for a document. For each word, containing more than one letter, it lists the word followed by the lines in which it appeared. User can get all words in the indexed document, one after the other. For each word in the indexed document, user can get a list of positions of the first letter of the word in lines : (line, position)

    For example:

        return of index document:

            "compiler 3, 17, 25

             get 4, 7, 10, 20"

        return of get words:

            compiler, get, ….

2. Program spelling checker: a program that will compare the words in a document with a dictionary to identify spelling errors. User can see the suggestions for a word to correct it by themselves.

3. Program path finder: a program that gives directions on the best way to get from point A to point B. The program has access to a database that identifies point of interest, how to get from one adjacent location to another, and the distance involved. User can also calculate the distance between two points A and B.

For each program, you need to:

    Produce a use case diagram and use case detail.

    Produce a class diagram for requirement analysis.

    Produce a class diagram for implementation.