**GIT Department of Computer Engineering**

**CSE 222/505 - Spring 2022**

**Homework # Report**

**Student Name**

**Student Number**

1. **SYSTEM REQUIREMENTS**

Write detailed system requirements. System requirements are detailed descriptions of the software system’s functions, services, and operational constraints. The system requirements document (sometimes called a functional specification) should define exactly what is to be implemented. It may be part of the contract between the system buyer and the software developers. (Write detailed functional and non-functional requirements, etc.)

Here are some useful links:

<https://cgi.csc.liv.ac.uk/~coopes/comp201/handouts/SE_L4.pdf>

<https://www.geeksforgeeks.org/software-engineering-classification-of-software-requirements/>

<http://www.inf.ed.ac.uk/teaching/courses/ip/CS2Ah0405-SoftwareRequirements.pdf>

1. **USE CASE AND CLASS DIAGRAMS**

Give only the asked diagram/s for the related homework under this heading. Explain your diagrams if it is needed. For example; give brief explanations about the classes and their relations.

Useful links to create good use case diagrams:

<https://www.tutorialspoint.com/uml/uml_use_case_diagram.htm>

<https://www.visual-paradigm.com/guide/uml-unified-modeling-language/what-is-use-case-diagram/>

Useful links for class diagrams:

<https://www.tutorialspoint.com/uml/uml_class_diagram.htm>

<https://www.visual-paradigm.com/guide/uml-unified-modeling-language/what-is-class-diagram/>

1. **OTHER DIAGRAMS**

You can add any other diagrams in order to describe your system better.

<https://www.tutorialspoint.com/uml/uml_standard_diagrams.htm>

1. **PROBLEM SOLUTION APPROACH**

Write your problem solution approach. To solve a problem, you should define the problem, divide it into sub-problems, create a plan of steps, try if your approach works, etc. You can find useful articles on problem solving by googling “problem solving in software engineering”.

1. **TEST CASES**

Write test cases to check whether your system works properly. A test case is a set of conditions or variables under which a tester determines whether the software satisfies **requirements** and **functions** properly.

Here are good definitions and examples to create test cases:

<https://www.guru99.com/test-case.html>

1. **RUNNING AND RESULTS**

Run your system, check your test cases, add your results as screenshots and tables.