Middle East Technical University | Department of Computer Engineering

CENG 213

Data Structures

Fall '2014-2015

Take Home Exam 1

Due date: 31 October 2014, Friday, 23:55

1 Objectives

This assignment aims to help you get familiar with class structures, templates and exceptions in C++. An header file (matrix.h) will be provided to you and you will implement the functions in a seperated .cpp file.

Keywords: *C++, OOP, Templates, Exceptions*

2 Specifications

- In this take home exam, you are expected to complete the implementation of Matrix class whose interface and partial implementation is given to you in the file named matrix.h.
- The neccessary information about all of the functions that you will implement is provided in the header file as comment.
- Your solution should be submitted in a new file that you will create. Name the file as follows: e1234567_the1.cpp (replace e1234567 with your number).
- You can not change the header file, your .cpp should not contain main function. (But you are encouraged to try your solution with a main function.)
- Your codes will be automatically compiled and executed with our driver programs. You can write your own driver program and test your class.
- You can only use the "iostream" header file and the Matrix class' interface header file that is given to you. You CANNOT include any other header files such as C's string.h
- We should be able to compile your codes with the following command without any errors or problems: g++ -c e1234567_the1.cpp. (This is a way to compile the codes without main.)

3 Regulations

1. **Programming Language:** You must code your program in C++. Your submission will be compiled with `g++` on department lab machines. You are expected make sure your code compiles successfully with `g++`.

2. **Late Submission:** You can't send a file after the deadline for this take home exam.

3. **Cheating: We have zero tolerance policy for cheating**. Cheating from a friend, from internet or from any source is strictly forbidden. As this is an exam, people involved in cheating will be punished according to the university regulations.

4. **Newsgroup:** You must follow the newsgroup (news.ceng.metu.edu.tr) for discussions and possible updates on a daily basis.

5. **Evaluation:** Your program will be evaluated automatically using "black-box" technique so make sure to obey the specifications.

4 Submission

You should submit a single file called e1234567_the1.cpp . The following should not give any error:

```
$ g++ -c e1234567_the1.cpp
```