



2017 – 2018 SPRING

CMP 1001 Introduction to Programming (C++)

Term Project

You are expected to implement a simple C++ game with following scenario:

You are controlling a car and you need to find exit from the maze before the time is over. Inside the maze, there is only one exit. There are some mysterious bonuses, if you take it, you can gain or lose attributes. There are 2 levels to finish game. Each level must be different maze design.

Minimum Criteria:

You are expected to design the game by using C++. Below are the minimal criteria:

- You must create game board with 2-Dimensional Matrix
- Bonuses create with randomly in the game board
- All bonuses have got the same value but different effect for car and score. These effects may be positive or negative.
- You must use *pointer* for creating and using car. Some bonuses may be change car type.
- When the game finish, you must show high-score.
- For moving car, you need to create coordinates randomly and you need to write proper control statements.
- You must use functions for drawing game board and changing car type. If you need extra functions, you can use it.
- If you cannot get out the maze when the time is up, the game is over and you need to show high score.

In this project, you must do all minimum criteria. In the end, your program must be work without any errors.

Bonus:

- Save and load high score information to/from disk
- Each bonus has got different random values.
- You can create cheat codes for the game.
- You can create alternative control for car.
- Car can jump over the wall but may lose the score. When car exit the maze, game is over and you need to show high score.

Limitation:

You **cannot** use third party libraries in your project.

Project Report:

You need to create project report.

Teamwork:

The project is for 2 people but you can create groups of 3, but you must do minimum criteria and bonuses together.

Cheating Policy:

Cheating is strictly prohibited. It must be your own work. Do not use each other's code. In such case all the cheaters, including the original project, will be penalized heavily. Do not include external people for help.

Submission:

Project Announcement date: 09.11.2017

Last Submission date: 17.12.2017 23:59 (Late submission will not accept)

You must upload all project files and project report using itslearning system.

For groups, don't forget to add your Project Group's Members using itslearning system.

Presentation & Grading:

Presentation date: Will be announced later.

If you don't do presentation, you won't get any points from project. In presentation, you can explain your code and maybe we want to do changing some codes in your project.