## The Modeling Task<sup>1</sup>:

In this task you will design a game with use of the UML class diagram. You do not need to use packages in this assignment,

The description of the game is as follows:

A player (user) controls a certain tank. This tank is a Panzer Tank, a Centurion Tank or a Sherman Tank. They fire bullets and Tank shells. Bullets can be Metal, Silver or Gold bullets. A tank moves around a world (level). The aim is to destroy all other tanks in the world. After a world has been completed the tank advances to the next world. A list of all the worlds visited is kept. An entire game consists of 8 levels. A world contains a maximum of 20 tanks that compete for victory. Each tank remembers which tanks it has destroyed in the past. The score for each level is kept by a scoreboard that gets notified by the individual tanks each time an opponent is shot. The players control their tanks through an interface allowing for steering, driving (reverse / forward), switching ammo and firing.

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<sup>&</sup>lt;sup>1</sup> text from colleague Bilal Karasneh