## C# 2 Team "Horned Demon"

**Team members:**

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Game name: **“Towers”**

GitHub repository: [**https://github.com/VladimirDimov/Towers**](https://github.com/VladimirDimov/Towers)

**Project explanation:**

It’s a dynamic game for two players. Each player has a tower with one hundred life points. The aim is to destroy the other player’s tower by shooting at it. The game is written in one class and in a number of methods.

The three main modules of the game are: choosing the game options through the menu, drawing the terrain with the towers and realization of the shooting process.

The menu ….

The ball movement is performed by using the following parameters: shooting angle, shooting velocity and accounting for the wind. The ball trajectory is calculated through a quadratic equation using the above mentioned parameters.

When the ball hits an object on the terrain a method checks if the object is part of the terrain (‘#’) or a part of a tower ( ‘1’ or ‘2’ ). The ball destroys a square of 9x9 and for each part of the destroyed square that coincide with a tower 20 life points from the hit tower are taken.

Each player has a turn to shoot and then the next player shoots. The two players alternate with each other. The game continues until one of the two players has 0 life points. Then the winner has a match point and new game starts with both players having 100 life points.

The building of the terrain can be performed in two ways. The first is by using a text file which contains the terrain shape. The second way is by using a method which draws the terrain shape randomly. The terrain is first loaded in a two dimensional array and then through a StringBuider is written on the console. Then the towers are placed at 10 positions from both ends of the terrain and on the top of the terrain. Also a panel showing some game info is placed on the top of the console. The panel is refreshed each time when a game parameter has changed.