Tank Battles: Phase 1

**Summary:**

Tank battles is a competitive one-versus-one tank combat game, taking place on a simple grid. The controls are easy enough for children to grasp and the multiplayer competitiveness will keep it relevant for a much longer time period. It exists to entertain, it has high-paced frantic gameplay as one scrambles to get out of the way of the enemy’s firing line, whilst still trying to get a hit on the enemy. The gameplay can increase an individual’s reaction time, as the game plays out in real time, with no limit to the speed a person can move at. The faster you are out of the game, the more successful you will be in the game. Due to the multiplayer-on-one-keyboard gameplay, social interaction with another player is somewhat enforced, getting people to come together to enjoy a simple game of Tank Battles.

**Specifications of Program Function:**

* Gameplay
  + Movement
    - Forward
    - Backward
    - 90 degrees right
    - 90 degrees left
  + Firing
    - Straight line laser, forwards. Hitscan.
* Scores
  + Each player can create a profile.
  + The player’s score (amount of hits on an enemy) is saved in a text file, along with their profile name.
  + Scores can be viewed in the program, at the profile menu.
* Settings
  + Adjusts grid size for gameplay.
* Help menu
  + Contains a basic summary of the game, as well as the controls.

**Specifications of Help:**

* Program contains a help menu, the user can access this directly from the main menu. It is cleanly laid out to allow for easy navigation.
* The help menu concisely states the objective of the game, to avoid confusion. It also lays the controls out in a manner that even a gaming beginner can understand it.
* The help menu is hardcoded but can be updated in the future via game updates.

**Specifications of Data Storage:**

* All data, scores and profiles, will be stored on a text file and updated on the fly. Scores will be stored to preserve their value on a fair based system. Profiles are stored to continue counting the score on the correct profile.

**Hardware and Software Requirements:**

***Hardware:***

* 2GB RAM
* 256 GB Hard drive
* Intel Core i5-7200u Processor
* Graphics Card - any with DisplayPort/HDMI or DVI support
* 1336x768 Resolution
* Operating System – Windows 7 and up
* Monitor - 19" LCD (Desktop only)

***Software:***

* Netbeans IDE 8.2
* Java SDK: 1.8.0\_172
* Paint.net
* Notepad++