Team "Sindel"

# Members:

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# Project purpose:

The purpose of Team “Sindel” teamwork is to create browser arcade game. The game will be created using KineticJs, jQuery and VanilaJS.

## Story

The story of the game is aliens attacking the Earth. As a final hope a big defense facility must be build, but as usual the time is not enough, so you have to stop aliens as long as you can, so the facility to be build and the alien evasion prevented.

## Characters

There is only one character in this game and it’s you with your ship. You will be positioned at the left side of the screen, while enemies will be spawned at the right.

## Gameplay

To play this game is very simple. Just use your arrow keys and your plane will move on the desire direction, to fire use “Space bar”. When you destroy a ship your score will increase with one. Every destroyed enemy ship has a chance to deliver bonuses. There are two types of them:

* Health bonus – recover part of the facility health being taken
* Score bonus – gives additional 30 bonus score.

Enemies can’t shoot before they reach center of the screen, simply because the Base, you’re defending is out of their reach. But once they reach center of the screen they will begin shooting it and its HP will begin to fall. If the HP of the base reaches 0 the game is over and you just lost the game. But if you kill 50 enemies, at stage 1(only stage at the moment) you will win the stage (game).

## Game architecture

The game has 6 html files:

* index – start screen
* game – the game
* credits – the team made it
* howtopage – story and how to play
* gameover – lost screen
* victory – victory screen

Music files are 12 and they’re in snd folder.

There are also 9 java script files:

* game.js – the main file, holding constants, global variables, initialization and start functions
* player.js – holding logic player animation
* movement.js – logic for the movements(keyboard at the moment, but it can be changed)
* bullets.js – logic for player’s missiles and their animations. Also here is the logic for collision with the bullet and enemy
* enemies – logic for enemies, their animation, dead enemies and their animation(it’s different)
* enemyBullets – we could use one array for player’s and enemy’s missiles, but we must add additional property for if the bullet is enemy’s or player’s and do different logic if they are. So we preferred keeping them in different files, for separated logic. The best would be to have class Bullet and two successor enemyBullet and playerBullet, but that’s still out of our knowledge (waiting for next course). Here is losing condition too.
* bonus – logic about spamming and fading bonuses
* score – logic about the current score and victory conditions
* exploadingParts – sometimes the enemies instead fall down explodes and that makes their ship’s remains fly around.

Every single thing in the game is object with some common attributes:

* x
* y
* width
* height
* image

The different kinds of objects are stored together in arrays:

* enemies
* deadEnemies
* bullets
* enemyBullets
* bonuses
* explodingParts

Once an array member is done with it business it’s removed from array – enemy got hit (removed the enemy AND the bullet hit him), enemy left the screen, enemy bullets left the screen and so on. By this we assure that there are no “parasitic” objects in the game.

# GitHub URL

https://github.com/nik-peev/JS2-Teamwork