Space Invaders Game:

Name: Tom Menashe

Id: 316429653

Interfaces:

I used the same interfaces and classes like in the Arknoid game.

Implementation of shield, aliens paddle and the shots by player:

I added few boolean functions:

"isEnemyBlock", "isPaddle", "isShield" "isBall" on the sprite interface on order to different between the sprites on the game.

On the game level:

The shots on the game are made by the function that call createBallOnPaddle(), which every time we click the space button the function is called.

I added a velocity to the block class and because we know who is a shield, and enemy.. we give only the enemy the velocity so they can move.

The shield are made by very little blocks 5x5.

The shots by the aliens are every 0.5 second by getting current time and stop time, and every 0.5 second a function dropEnemyBall(Block) that drop balls randomly between the bottom of the blocks.

Brief description:

a) Aliens are created in the game level by function called create enemies.
b) Shield are created in the game level by function called creatingShieldBlocks.
c) Shots by aliens are created by checking the current time and stop time which is 0.5 bigger than current time. And every time current time is equal to stop time we call a function called dropEnemyBall().
d) Shots by player are by clicking space we call function called createBallsOnPaddle, and if we press without stop we do like in c) but every 0.35 seconds.