

FACULTY OF ENGINEERING AIN SHAMS UNIVERSITY

CSE126: COMPUTER PROGRAMMING (2)



SUPER GALAXY



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Contents

1.0	Brief Description	2
1.1	Implementation	2
1.2	Bonus Features	2
2.0	User Guide	3
2.1	Home Frame.....	3
2.2	How to Play	3
2.3	Game Frame.....	4
2.4	Shield Protection.....	5
2.5	Finishing the game	5
2.6	Getting a High Score	6
2.7	Hall of Fame	6
3.	Teamwork	7
4.	Difficulties and Tricks	7

1.0 Brief Description

1.1 Implementation

The game consists of a spaceship flying in space where you should avoid or shoot obstacles (space rocks). The spaceship moves up and down, has a health bar which will decrease if the spaceship collides with a rock and holds a number of missiles to shoot. Also, the game provides extra health, missiles and shield that can be collected during the game.

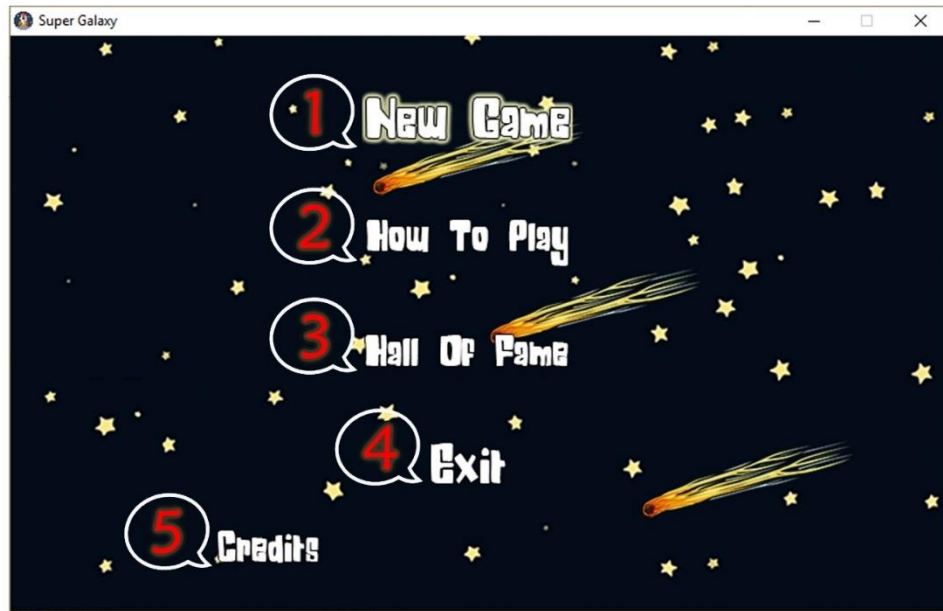
The implementation is mainly based on importing images which move appropriately, for that purpose the code is divided into objects classes; like Rocket, Missile and a parent class PlayObjects that represents all encountered objects during the game and major panels classes like; HomePanel, PlayPanel and HallOfFame.

1.2 Bonus Features

1. The game has an increasing difficulty, the number of space rocks and their speed increase according to the level achieved.
2. A hall of fame, a list of the best 5 scores stored in a file.

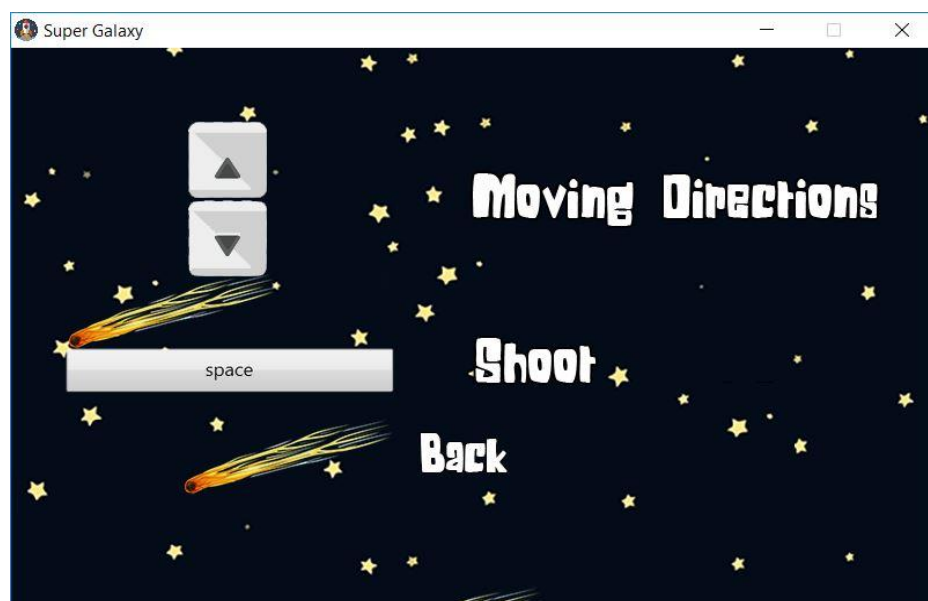
2.0 User Guide

2.1 Home Frame

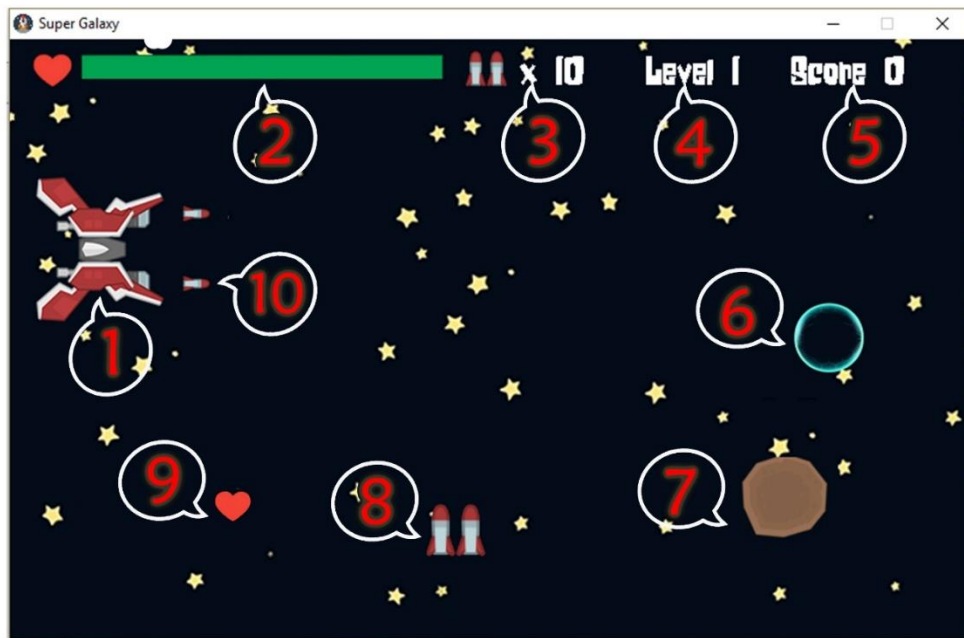


1. Starts a new game.
2. Shows the game keypad controllers and its highly recommended to check it before starting the game.
3. Shows the hall of fame, where a list of the top 5 scores in the game occur.
4. Exits the game.
5. Shows the developers' names.

2.2 How to Play



2.3 Game Frame



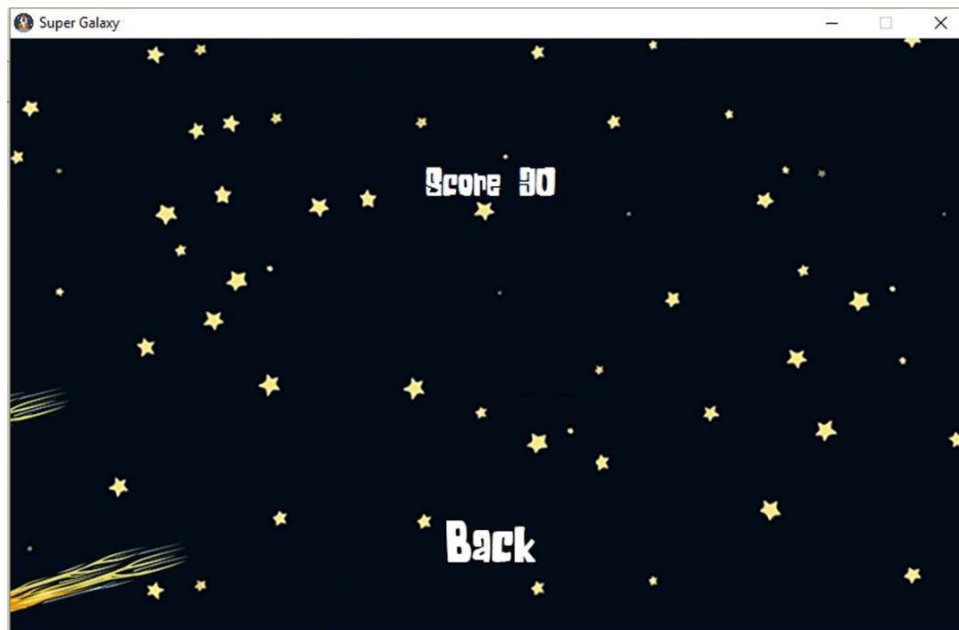
1. The space ship can move up, down and shoot.
2. The health bar decreases when the spaceship collides with a rock and increases when it hits a heart.
3. Missiles count, if it reaches zero, you won't be able to shoot missiles.
4. The level count indicates the current level.
5. The score count indicates the current score.
6. Gaining a shield protects the spaceship for only one hit with a rock.
7. Successfully hitting a rock with a missile increase the score by 10 points.
8. Collecting new missiles increases the missiles amount by 5.
9. Hitting a heart will increase your spaceship health bar.
10. Shooting missiles, each missile will destroy only one rock if they collide.

2.4 Shield Protection

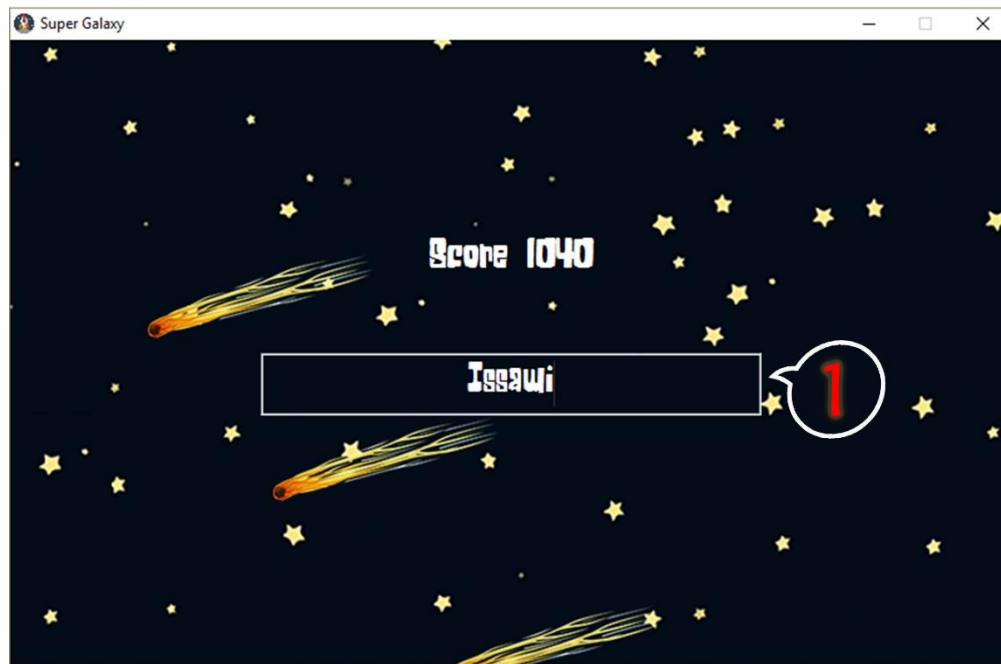


2.5 Finishing the game

Only showing your score if its less than the top 5 scores.

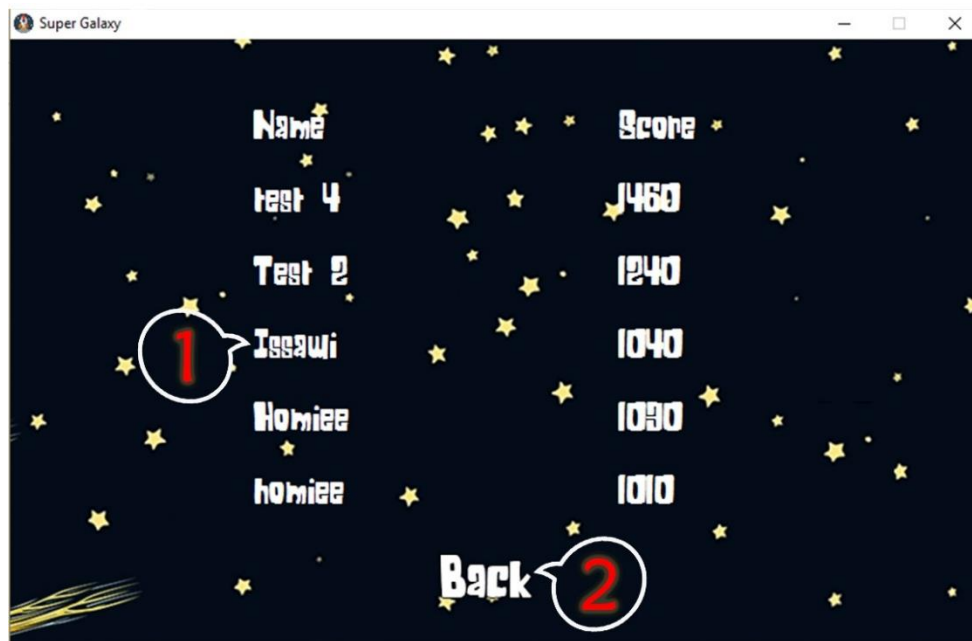


2.6 Getting a High Score



1. Enter your name to be shown with the score in the hall of fame.

2.7 Hall of Fame



1. Whenever you open the game again, you will find your name (1) shining in the hall of fame unless anybody broke your record.
2. In order to return back to home page, you may click back (2).

3. Teamwork

Instead of assigning individual roles to each member, we decided it would be more efficient and beneficial for us to work as a team on every aspect of the project.

4. Difficulties and Tricks

Importing images was not clear until lecture 11, collision accuracy for those irregular shapes was definitely a challenge for this specific problem a model of smaller rectangles is designed to check for a collision, the game's main timer for the gameplay, is divided into 2 timers for enhanced performance, finally all images are imported a single time at the start of the game for a smoother experience.