

Asteroids: a 2d game that let you shoot asteroids and other objects while piloting your spaceship in the space

Kareem Salah, Belal Ibrahim, Khaled Hesham, Mostafa Hazem

April 10, 2017

---

## **1 PROJECT FUNCTIONALITIES**

### **1.1 Initialize**

Initialize the states of the game

### **1.2 Render**

Responsible for rendering the changes happen in the game

### **1.3 Fire**

Make the player able to shoot projectile with appropriate physics

### **1.4 Projectile Collision**

Handle whenever projectile hit an object

### **1.5 Player Collision**

Handle whenever the player collides with obstacle

### **1.6 Move Obstacle**

Move obstacles with the appropriate inertia

### **1.7 Move Player**

Move Player with the appropriate inertia

## **1.8 Move Projectile**

Move Projectile with the appropriate inertia

## **1.9 Thrust**

key-event that control speed for player space-ship

## **1.10 Change Direction**

key-event that let you change the direction where your spaceship is looking

## **1.11 Add Obstacle**

add new obstacles to make game harder overtime

- 
- Kareem Salah, 20150388,  
E-mail: karim.salah2048@gmail.com
  - Belal Ibrahim, 20150186,  
E-mail: billyfcih@yahoo.com
  - Khaled Hesham, 20150226  
E-mail: khaledhesham2017@hotmail.com
  - Mostafa Hazem, 20150528  
E-mail: mostafahazem144@yahoo.com

Programming Language 3 - CS313 - Spring 2017 - Faculty of Computers and Information - Helwan University

## 2 Project Backlog

### 2.1 DEVELOPMENT

| Development |                 |                  |                      |                      |         |
|-------------|-----------------|------------------|----------------------|----------------------|---------|
|             | Week 9          | Week 10          | Week 11              | Week 12              | Week 13 |
| Kareem      | Initialize      | Fire             | Thrust               | Thrust               |         |
| Belal       | Render          | Add Obstacle     | Move Obstacle        | Move Obstacle        |         |
| Hazem       | Move Player     | Change Direction | Projectile Collision | Projectile Collision |         |
| Khaled      | Move Projectile | Move Projectile  | Player Collision     | Player Collision     |         |

### 2.2 TESTING

| Testing |        |                 |                  |                      |                      |
|---------|--------|-----------------|------------------|----------------------|----------------------|
|         | Week 9 | Week 10         | Week 11          | Week 12              | Week 13              |
| Kareem  |        | Initialize      | Fire             | Thrust               | Thrust               |
| Belal   |        | Render          | Add Obstacle     | Move Obstacle        | Move Obstacle        |
| Hazem   |        | Move Player     | Change Direction | Projectile Collision | Projectile Collision |
| Khaled  |        | Move Projectile | Move Projectile  | Player Collision     | Player Collision     |