

```

1  BasicGame.Game = function (game) {};
2
3  //Graphical Object
4  var ship;
5  var ufos; //Group of Enemy UFOs which drop from the top of the screen
6  var lives; //Group of Lives which are collected
7
8  var bullets; //Bullets which your spaceship fires
9  var fireRate = 100; // Rate at which bullets are fired
10 var nextFire = 0;
11
12 //Misc Variables
13 var cursors; //Keyboard control
14
15 BasicGame.Game.prototype = {
16
17     create: function () {
18         //Specifying the physics game engine to ARCADE
19         this.physics.startSystem(Phaser.Physics.ARCADE);
20         //Adding the starfield, logo onto the screen
21         this.starfield = this.add.tileSprite(0, 0, 800, 600, 'starfield');
22         //Adding the ship onto the screen, set the physics and the
        boundaries
23         ship = this.add.sprite((this.world.width / 2), this.world.height -
        50, 'ship');
24         ship.anchor.setTo(0.5,0);
25         this.physics.enable(ship, Phaser.Physics.ARCADE);
26         ship.body.collideWorldBounds = true;
27
28         //Creating Groups
29         //Create the ufos group, set the physics and the boundaries
30         ufos = this.add.group();
31         this.physics.enable(ufos, Phaser.Physics.ARCADE);
32
33         ufos.setAll('outOfBoundsKill', true);
34         ufos.setAll('checkWorldBounds', true);
35         ufos.setAll('anchor.x', 0.5);
36         ufos.setAll('anchor.y', 0.5);
37
38         //Create the lives group, set the physics and the boundaries
39         lives = this.add.group();
40         this.physics.enable(lives, Phaser.Physics.ARCADE);
41
42         lives.setAll('outOfBoundsKill', true);
43         lives.setAll('checkWorldBounds', true);
44         lives.setAll('anchor.x', 0.5);
45         lives.setAll('anchor.y', 0.5);
46

```

```

47         //Create the bullets group, set the physics, multiples and
boundarys
48         bullets = this.add.group();
49         bullets.enableBody = true;
50         bullets.physicsBodyType = Phaser.Physics.ARCADE;
51         bullets.createMultiple(30, 'bullet', 0, false);
52         bullets.setAll('anchor.x', 0.5);
53         bullets.setAll('anchor.y', 0.5);
54         bullets.setAll('outOfBoundsKill', true);
55         bullets.setAll('checkWorldBounds', true);
56
57         //Setting the keyboard to accept LEFT, RIGHT and SPACE input
58         this.input.keyboard.addKeyCapture([Phaser.Keyboard.LEFT, Phaser.Keyboard.RIGHT, Phaser.Keyboard.SPACEBAR]);
59         cursors = this.input.keyboard.createCursorKeys();
60     },
61
62     update: function () {
63         //execute 'createUfo', 'createLife', 'moveShip', 'collisionDetection'
function
64         this.createUfo();
65         this.createLife();
66         this.moveShip();
67     },
68
69     //moves ship and fires bullet from keyboard controls
70     moveShip: function () {
71         //if left arrow key pressed move players ship left
72         if (cursors.left.isDown) {
73             // Move to the left
74             ship.body.velocity.x = -200;
75         }
76         //if right arrow key pressed move players ship right
77         else if (cursors.right.isDown) {
78             ship.body.velocity.x = 200;
79         }
80         //else stop ship
81         else {
82             ship.body.velocity.x = 0;
83         }
84         //if space bar is pressed execute the 'fireBullet' function
85         if (this.input.keyboard.isDown(Phaser.Keyboard.SPACEBAR)) {
86             this.fireBullet();
87         }
88     },
89
90     //function executed during playing the game to create a UFO
91     createUfo: function () {

```

```

92         //Generate random number between 0 and 20
93         var random = this.rnd.integerInRange(0, 20);
94         //if random number equals 0 then create a ufo in a random x
position and random y velocity
95         if (random === 0) {
96             //Generating random position in the X Axis
97             var randomX = this.rnd.integerInRange(0, this.world.width - 15
0);
98             //Creating a ufo from the the ufos group and setting physics
99             var ufo = ufos.create(randomX, -50, 'ufo');
100             this.physics.enable(ufo, Phaser.Physics.ARCADE);
101             //Generating a random velocity
102             ufo.body.velocity.y = this.rnd.integerInRange(100, 600);
103         }
104     },
105
106     //function executed during playing the game to create a Life
107     createLife: function () {
108         //Generate random number between 0 and 500
109         var random = this.rnd.integerInRange(0, 500);
110         //if random number equals 0 then create a life in a random x
position
111         if (random === 0) {
112             //Generating random position in the X Axis
113             var randomX = this.rnd.integerInRange(0, this.world.width - 15
0);
114             //Creating a ufo from the the ufos group and setting physics
115             var life = lives.create(randomX, -50, 'life');
116             this.physics.enable(life, Phaser.Physics.ARCADE);
117             //Generating a random velocity
118             life.body.velocity.y = 150;
119         }
120     },
121
122     //Generate bullet and position in the x axis, set the velocity and
play the audio
123     fireBullet: function () {
124         if (this.time.now > nextFire && bullets.countDead() > 0) {
125             nextFire = this.time.now + fireRate;
126             var bullet = bullets.getFirstExists(false);
127             bullet.reset(ship.x, ship.y);
128             bullet.body.velocity.y = -400;
129         }
130     }
131
132 };

```