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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

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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         this.collisionDetection();
68     },
69
70     //moves ship and fires bullet from keyboard controls
71     moveShip: function () {
72         //if left arrow key pressed move players ship left
73         if (cursors.left.isDown) {
74             // Move to the left
75             ship.body.velocity.x = -200;
76         }
77         //if right arrow key pressed move players ship right
78         else if (cursors.right.isDown) {
79             ship.body.velocity.x = 200;
80         }
81         //else stop ship
82         else {
83             ship.body.velocity.x = 0;
84         }
85         //if space bar is pressed execute the 'fireBullet' function
86         if (this.input.keyboard.isDown(Phaser.Keyboard.SPACEBAR)) {
87             this.fireBullet();
88         }
89     },
90
91     //function executed during playing the game to create a UFO

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92     createUfo: function () {
93         //Generate random number between 0 and 20
94         var random = this.rnd.integerInRange(0, 20);
95         //if random number equals 0 then create a ufo in a random x
position and random y velocity
96         if (random === 0) {
97             //Generating random position in the X Axis
98             var randomX = this.rnd.integerInRange(0, this.world.width - 15
0);
99             //Creating a ufo from the the ufos group and setting physics
100            var ufo = ufos.create(randomX, -50, 'ufo');
101            this.physics.enable(ufo, Phaser.Physics.ARCADE);
102            //Generating a random velocity
103            ufo.body.velocity.y = this.rnd.integerInRange(200, 300);
104        }
105    },
106
107    //function executed during playing the game to create a Life
108    createLife: function () {
109        //Generate random number between 0 and 500
110        var random = this.rnd.integerInRange(0, 500);
111        //if random number equals 0 then create a life in a random x
position
112        if (random === 0) {
113            //Generating random position in the X Axis
114            var randomX = this.rnd.integerInRange(0, this.world.width - 15
0);
115            //Creating a ufo from the the ufos group and setting physics
116            var life = lives.create(randomX, -50, 'life');
117            this.physics.enable(life, Phaser.Physics.ARCADE);
118            //Generating a random velocity
119            life.body.velocity.y = 150;
120        }
121    },
122
123    //Generate bullet and position in the x axis, set the velocity and
play the audio
124    fireBullet: function () {
125        if (this.time.now > nextFire && bullets.countDead() > 0) {
126            nextFire = this.time.now + fireRate;
127            var bullet = bullets.getFirstExists(false);
128            bullet.reset(ship.x, ship.y);
129            bullet.body.velocity.y = -400;
130        }
131    },
132
133    //function executed during playing the game to check for collisions
134    collisionDetection: function () {

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135     this.physics.arcade.overlap(ship, ufos, this.collideUfo, null, thi
s);
136     this.physics.arcade.overlap(ship, lives, this.collectLife, null, t
his);
137     this.physics.arcade.overlap(bullets, ufos, this.destroyUfo, null,
this);
138     },
139
140     //function executed if there is collision between player and ufo. UFO
is destroyed, animation & sound, reduce lifeTotal
141     collideUfo: function (ship,ufo) {
142         ufo.kill();
143     },
144
145     //function executed if there is collision between ufo and bullet. UFO
is destroyed, animation & sound, increase score
146     destroyUfo: function (bullet, ufo) {
147         ufo.kill();
148         bullet.kill();
149     },
150
151     //function executed if there is collision between player and life.
Life is destroyed, animation & sound, increase lifeTotal
152     collectLife: function (ship, life) {
153         life.kill();
154     }
155
156 };

```