Week 5: Assignment 5: First Phaser Game

Due Sep 27 at 11:59pm **Points** 30 **Questions** 3
Available Sep 19 at 12am - Dec 14 at 11:59pm 3 months **Time Limit** None

Instructions

Description

For this assignment, you will use the Phaser JavaScript library together with the Cat Catcher2000 sample game code from Chapter 3 of *An Introduction to HTML5 Game Development with Phaser.js.* The assignment challenges you to integrate your own custom JavaScript code and external graphic asset files.

Requirements

Complete the Cat Catcher2000 game code, and add your own custom modifications to extend the game design and gameplay. Source files from the book are available for download; URL is identified in the text of Chapter 3 of the book.

1. Customize the source art used for sprites, replacing the original files in the tutorial.
2. Resize the dimensions of the game world.
3. Change the behavior of the catcher by modifying the sprite's movement with custom values of your own choosing.
4. Make the cat sprite's location change incrementally with each game update.
5. Change the amount that the score increases with each collision.
6. Rename the functions defined for your game state object's methods.
7. Validate the JavaScript in your work and provide a screenshot: **http://esprima.org/demo/validate.html (http://esprima.org/demo/validate.html)**

Purpose

Begin developing highly interactive user experiences using the Phaser JavaScript library. Learn how JavaScript can command the browser to create games.

Tools

- Cloud9 IDE code editor and file manager
- Chrome browser with Chrome developer tools
- Phaser JavaScript library found at **http://phaser.io/ (http://phaser.io/)**
- JavaScript code validator found at **http://esprima.org/demo/validate.html (http://esprima.org/demo/validate.html)**

Due Date

This assignment is due by the last day of this module by 11:59pm Pacific time.

Submission Directions

1. If you have not already done so, share your Cloud9 workspace with the instructor's account, ***srjcewilde.*** For instructions on sharing a workspace, see **https://docs.c9.io/docs/share-a-workspace (https://docs.c9.io/docs/share-a-workspace)** .
2. Create a folder inside of your Cloud9 workspace.
3. Name your folder "module05".
4. Upload all tutorial source files to your "module05" folder, completing all file changes and code modification needed in all files to meet assignment requirements.
5. Make a screenshot of the validation confirmation screen. Upload the screenshot to question 5.1.
6. Preview your HTML file containing your JavaScript in Cloud9 using the running application, and copy the URL where your file can be viewed on the Internet. Enter the preview URL for your page for question 5.2.
7. Copy the contents of your custom JavaScript code and paste into your response to question 5.3.

This quiz was locked Dec 14 at 11:59pm.

Attempt History

	Attempt	Time	Score
LATEST	Attempt 1	2 minutes	30 out of 30

Score for this quiz: **30** out of 30
Submitted Sep 20 at 2:55pm
This attempt took 2 minutes.

Question 1

10 / 10 pts

Upload the screenshot of the Esprima JavaScript Validator validation of your JavaScript code.

Ensure that no errors remain in the final validated code for full credit.

Risk_vs_Reward-Code_Validation.png
(https://canvas.santarosa.edu/files/1655663/download)

Question 2

10 / 10 pts

Enter the Preview URL for the HTML file containing your JavaScript for this assignment in your Cloud9 workspace.

For full credit:

1. *Make sure you have shared your Cloud9 workspace with the instructor account srjcewilde.*
2. *Ensure your code accomplishes the requirements of the assignment, without errors.*

Your Answer:

https://cs74-42-srjc-fall-2018-joshbarnard.c9users.io/module05/Risk_vs_Reward/Risk_vs_Reward.html

Question 3

10 / 10 pts

Copy the contents of your custom JavaScript code and paste into your response to this question.

Your Answer:

```
// Initialize the game, with height/width and phases
var game = new Phaser.Game(
791, 800, Phaser.CANVAS, null,
{ preload: preload, create: create, update: update }
);

// Initialize global variables
var money_man, usd, usd_counter, btc, btc_counter, cursors, score_Amount,
score, rules;

function preload()
{
// load in assets needed
game.load.image( 'money_man', 'images/sprite-Money_man.png' );
game.load.image( 'usd', 'images/sprite-usd.png' );
game.load.image( 'btc', 'images/sprite-btc.png' );
```

```
game.load.image( 'background_image', 'images/background-
Monopoly_Board.png' );
}

//setup game
function create()
{
// Initialize background sprite
game.add.sprite( 0, 0, "background_image" );


// Initialize the player
money_man = game.add.sprite( 400, 300, "money_man" );
money_man.anchor.setTo( .5, 0 );
game.physics.enable( money_man, Phaser.Physics.ARCADE );


// Initialize the opponents
usd = game.add.sprite( 150, 500, "usd" );
game.physics.enable( usd, Phaser.Physics.ARCADE );
usd_counter = 1;

btc = game.add.sprite( 550, 500, "btc");
game.physics.enable( btc, Phaser.Physics.ARCADE );
btc_counter = -0;


// Initialize & Display game score
var style_score = { font: "30px Arial", fill: "#000" };
score = 0;

score_Display = game.add.text( 120, 120, "Wealth: $", style_score );
score_Amount = game.add.text( 250, 120, score.toString(), style_score );


// Display Game Info / Rules
rules = "Collect as much money as you can within 60 seconds!\nDo you
choose the safe route by only collecting US Dollars?\nOr do you take the
riskier road and try investing in BitCoin?\n( Tip: The greater the risk, the
greater the reward and the loss. )"

var style_rules = { font: "20px Arial", fill: "#000" };
rules_info = game.add.text( 120, 180, rules, style_rules );


// Create the game timer
```

```
timerTotal = 60;
timer = game.time.create( false );
timer.loop( 1000, timerUpdate );
timer.start();


// Display Game Timer
time_Display = game.add.text( 560, 120, "Time: ", style_score );
time_Amount = game.add.text( 640, 120, timerTotal, style_score );


// Establish players Input as the keyboard arrow key
cursors = game.input.keyboard.createCursorKeys();

}

function update() {
// run game loop code
// Then defines actions for each key
if( cursors.left.isDown )
{
money_man.x -= 6;
money_man.scale.x = 1;
}
if( cursors.right.isDown )
{
money_man.x += 6;
money_man.scale.x = -1;
}
if( cursors.up.isDown )
{
money_man.y -= 6;
}
if( cursors.down.isDown )
{
money_man.y += 6;
}

// Game Physics / Collision Handling
game.physics.arcade.overlap( money_man, usd, usd_HitHandler );
game.physics.arcade.overlap( money_man, btc, btc_HitHandler );
money_man.body.collideWorldBounds = true;
usd.body.collideWorldBounds = true;
btc.body.collideWorldBounds = true;
```

```
}

function usd_HitHandler( money_man_Object, US_Dollar_Object )
{
US_Dollar_Object.x = Math.random() * game.width;
US_Dollar_Object.y = Math.random() * game.height;

score = score + Math.floor( ( usd_counter / 4 ) );
usd_counter++;
score_Amount.setText( score.toString() );

rules_info.setText( "" );
}

function btc_HitHandler( money_man_Object, BitCoin_Object )
{
BitCoin_Object.x = Math.random() * game.width;
BitCoin_Object.y = Math.random() * game.height;

score = score + Math.floor( ( Math.random() * 10 ) - ( Math.random() * 5 ) );
score_Amount.setText( score.toString() );

rules_info.setText( "" );
}

function timerUpdate( )
{
timerTotal -= 1;
time_Amount.setText( timerTotal.toString() );

if( timerTotal == 0 )
{
money_man.kill();
timer.stop();

score_Display.setText( "" );
score_Amount.setText( "" );
time_Display.setText( "" );
time_Amount.setText( "" );

var style_end = { font: "55px Arial", fill: "#000" };
final_score = game.add.text( 107, 370, "Your Total Wealth: $" + score,
style_end );
}
}
```

Quiz Score: **30** out of 30