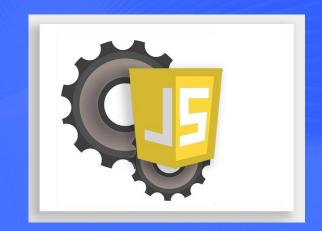


https://www.udemy.com/javascript-course-projects/ By Laurence Svekis

MONSTER JAVASCRIPT





Course Tips

Welcome to the course introduction

How to use this course

- **Learn core concepts of JavaScript** for beginners as well as current coders.
- Practice JavaScript
- **Expand your portfolio** over 50 projects that can be used to extend on and showcase.
- Create real world code useful for larger projects
- Skip to lessons or do them in order. Lots of content
- Apply JavaScript in Fun mini projects

Laurence Svekis - Instructor

- 18 Years of web development experience
- 500,000+ Students
- Course instructor since 2002



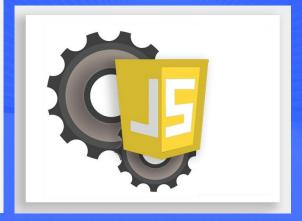


Get the Most out of the course

Tips for Success

- Source Code is included so you can try the code in your editor and render it in your browser
- Challenges along the way TRY THE CODE
- Dedicate time there is a lot of content a regular schedule will get you to the end.
- Check out the **links and resources** for further learning





Need HELP

Stuck I'm here to help you.

"I'm always ready to help you learn!!!"

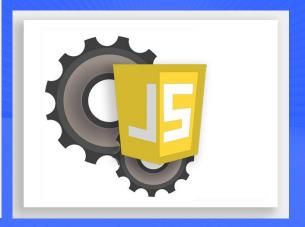
Message me or ask within the Q&A section to get more details.

- Clarify content
- Error
- Troubleshoot issues
- New content suggestions
- Course improvements
- Share your successes

Share as much details as possible to help better assist you.

Screenshots - Code snippets - Error messages - Whatever you have to help understand and diagnose the issue.





Prerequisites

What is covered and what is NOT

HTML and CSS are not covered!!! - You should have hands on experience with HTML and CSS

Core focus is JavaScript

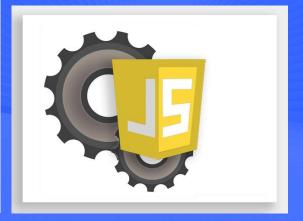
No libraries or short cuts covered

Only JavaScript - Vanilla JavaScript

You should already have everything you need.

Have an internet connection - and Browser which you already likely have.





Projects

Different ways to try the project code.

Each section has a single working mini application

1 PROJECT = 1 SECTION in the projects sections

Please note that most projects are done within **one HTML file** to avoid having multiple files and **make it easier for students** to copy and paste.

First LESSON Project Introduction:

Ways to learn from the project

- Watch each lesson in sequence and try the code alongside the lessons.
- 2. **Watch the first lesson, try to build** a similar application then watch the videos on how to make it.
- 3. **Watch all the lessons** then build the project on your own.





Projects - MORE

You don't have to do them in order!

The projects have the core JavaScript code introduced at the first lesson.

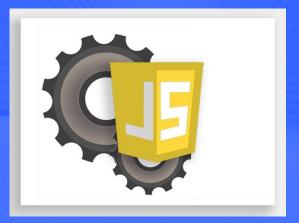
The projects do get progressively harder but not always the case it depends on YOU. You don't have to take them in order it's just suggested to be in that order.

Most lessons will have a download code snippet attached

The best way to learn is to **try the code**... did I mention this before :)







Projects - Learning Objectives

What to expect

Wide Audience of students with different experience and skills.

- Each Section has its own learning objectives
- Made for students of various levels of expertise
- Fast pace learning right to the point
- Content stays on the objectives
- You can 2X the video speed I don't mind nor will I know
- Step by step approach
- Code is presented in simplified format so all students can benefit the most from the lessons
- You may find some project content to be repetitive I do my best to have variety but the steps to make applications can be similar unfortunately .





Projects - EVEN MORE

Make your own version - showcase it in your portfolio

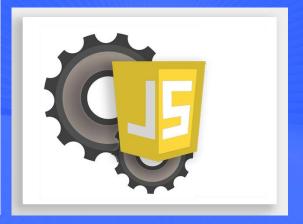
After you complete the project you can continue to extend on it. The design is a simple working model.

Very little CSS is used - **YOU CAN MAKE THEM LOOK WAY BETTER** - I guarantee that. I try to spend as little time as possible on the CSS as it's not the focus of what the course is about.

Feel free to create your own versions and use the projects in your portfolio. I want you to have a wide variety of content to showcase your skills.

You can always go back on the projects and try them again.





HELP

Your success is my GOAL YOUR SUCCESS

This course is put together in a step by step process to help you learn. If you feel something is missed or needs more clarity let me know.

Q&A and direct messages I do my best to respond ASAP usually within 24 hours on weekdays.

I also plan on regular updates and additions of new content depending on what feedback and questions I get in the Q&A.

HAPPY CODING:) Don't forget to try the code. I will bug you again, and again.





JavaScript core fundamentals Getting started with JavaScript





Downloadable PDF reference GUIDE
This Section Lessons are based around this guide
Over 200+ pages

Includes

- Links to resources
- Code snippets
- Challenges with solutions
- Lesson outline and guide
- Notes on lessons

*Copy and paste the code samples use it as a reference to the section content.

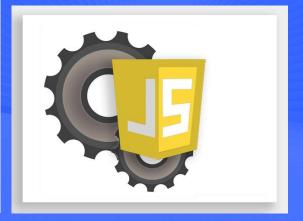




Challenges

- Use template literal in code
- Create a Miles to Kilometer converter taking user input in miles then outputting the value in kilometers
- Hello greeter customized greeting to the user.
- Looper array building code

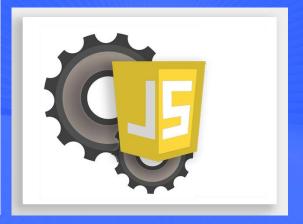




Learn how to code with JavaScript creating amazing interactive and dynamic web applications that run in your web browser.

- Very basics of what JavaScript is and how it works.
- How to add JavaScript to your web pages
- What you need to write JavaScript code
- Some history really brief





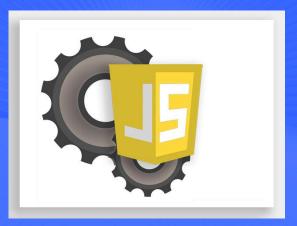
- Commenting in code
- Why we comment
- JavaScript Variables
- Assign values let, const, var
- Variable Setup
- JavaScript Data Types
- Get user input with prompt
- Quotes and Backticks Template Literal
- JavaScript Operators * / +





- Comparison Operators
- If Else Statements
- Ternary Operator
- Handle Multiple Conditions
- JavaScript Switch statement
- JavaScript Functions
- Brief about CLICK event handling
- JavaScript Objects
- JavaScript Arrays
- Array methods
- JavaScript Loops





JavaScript Web page interaction and dynamic content DOM





JavaScript Document Object Model creating interactive and dynamic content with JavaScript

60+ PAGE Downloadable PDF Guide

Includes

- Links to resources
- Code snippets
- Challenges with solutions
- Lesson outline and guide
- Notes on lessons

*Copy and paste the code samples use it as a reference to the section content.





Make your content dynamic

- What the DOM is
- JavaScript Element Selection
- Multiple element selection
- Changing things Element Manipulation
- Element Classes
- Element Children and Traversing
- Element Attributes
- Style Attribute updates
- DOM create Elements





Challenges

- Dynamic Image Popup
- List Items updater
- Background Color Changer
- Editable list add remove strikethrough





Make your pages interactive

- Event Listeners DOM.
- Click events
- Key Press Events
- Event Bubbling and capturing





Tip Calculator - Project





Tip Calculator - Project

Use Math to calculate a value. Get an input from the user and use it in the calculation. Update the HTML to show the final value.

- querySelector()
- addEventListener()
- Template Literal \${tip}
- (cost.value *0.15).toFixed(2);
- Set innerHTML

You should tip \$15.00 on \$100







Welcome messages Customized JavaScript messages





Customized JavaScript messages

Short only one lesson:) Get input value and output to the screen a welcome message to the users name that is entered into the input field.

- document.querySelector()
- button.addEventListener()
- output.innerHTML

Hello welcome, Laurence

Name : Laurence Message





Dynamically changing by time welcome message





Changing by time welcome message

Customized message using JavaScript dependent on time of day

- document.querySelector()
- button.addEventListener()
- style.cssText
- const date = new Date();
- output.style.backgroundColor
- output.innerHTML







Coin Toss Application - is it heads or tails





Coin Toss Application -heads or tails

Coin Toss Application - is it heads or tails JavaScript. Simple VS game you against the computer.

- const coinArray = ["Heads", "Tails"];
- document.querySelector()
- document.querySelectorAll()
- for (let i = 0; i < buttons.length; i++)
- buttons[i].addEventListener()
- e.target.innerText
- Math.floor(Math.random() * coinArray.length);
- if (playerGuess === computerGuess)

Computer Selected Heads Player Wins Player 1 Computer 0 Heads Tails





Rock Paper Scissors Game





Rock Paper Scissors Game

Who wins ??? Rock Paper Scissors

Paper > Rock > Scissors > Paper > Rock

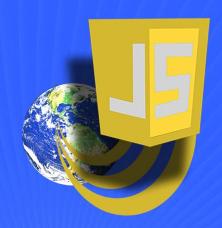
Pick one at random - see who wins

- Apply Logic conditions for win
- Math.random();
- if (computerSelection < 0.34) {

Player[0] Computer[0]
Rock vs Rock

Draw results in a tie match
Rock Paper Scissors

```
if (pl === "Rock") {
    if (co === "Paper") {
        return "Computer";
    }
    else {
        return "Player";
    }
}
```





Ultimate Dice Game

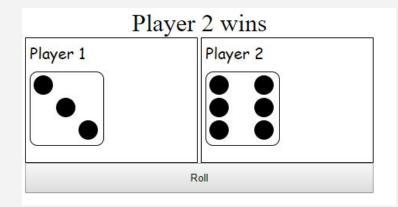


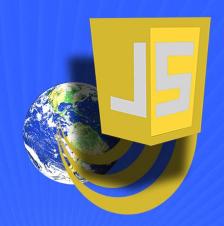


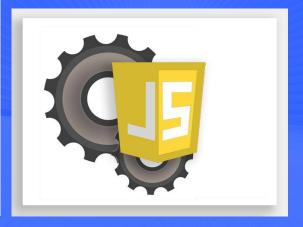
Ultimate Dice Game

Apply game logic and flow making a JavaScript Dice Game. Highest rolls wins you vs the computer

- Visual Dice with CSS and Style
- Game Play Win logic
- Random for computer and player roll







Ultimate Dice Game

- document.querySelector()
- const dice =[[5],[1,9],[1,5,9],[1,3,7,9],[1,3,5,7,9],[1,3,4,6,7,9]];
- button.addEventListener("click",
- let rolls = [roll(6),roll(6)];
- else { temp="Player 2 wins"; }
- el.appendChild()
- el.children[0].remove()
- document.createElement("div");
- for(let x=1;x<10;x++){
- span.classList.add()
- span.setAttribute()
- Math.floor(Math.random() * num) + 1;





Play audio files and sounds with JavaScript

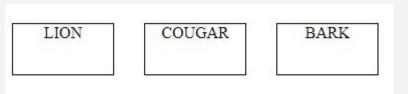




Play audio files, sounds with JavaScript

Create interactive audio using JavaScript. Click a button play an mp3 file.

- const myArray = ["lion", "cougar", "bark"];
- document.addEventListener()
- setAttribute()
- document.createElement()
- document.body.appendChild(div);
- let sound1 = new Audio("sound/" + name + ".mp3");
- classList.remove() and add()







JavaScript Dynamic Typing Test



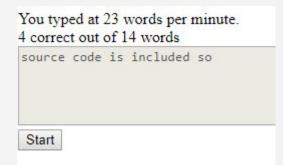


JavaScript Dynamic Typing Test

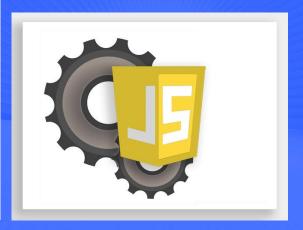
Create an interactive typing test for web users with JavaScript code

Features

- Random Phrases for typing test
- Counts start time and end time
- Checks for errors counts errors in words
- Shows Results







JavaScript Dynamic Typing Test

Code behind the scenes

- const wording = ["]
- document.querySelector()
- button.addEventListener("click",
- let date = new Date();
- endTime = date.getTime();
- let speed = Math.round((wordCount / totalTime)* 60);
- let response = strWords.split(" ").length;
- words1.forEach(function (item, index) {
- let randomNum = Math.floor(Math.random() * wording.length);
- button.innerText = "Done";





Functionator JavaScript Function practice Code





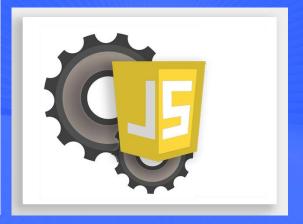
Functionator Function practice

Learn and explore more about functions

- All JavaScript NO HTML
- Press Keys setup movement
- Remove actions by click
- Run Action Sequence when ready
- The Box will move
- Change the box color and content







Functionator Function practice

- const movementArray = ["right", "left", "up", "down"];
- myBlock.style.width height backgroundColor color lineHeight textAlign position top
- document.body.appendChild(myBlock);
- addEventListener("keydown", function (e) {
- let keyC = e.keyCode; if (keyC === 37) {
- Math.random() **for color**
- myBlock.getBoundingClientRect();
- funList.shift(); Array methods
- el.textContent.replace("+", "");
- myFunctionList.removeChild(el);
- span.addEventListener("mouseover"
- myBlock.offsetLeft; Position on screen





Magic Eight Ball JavaScript

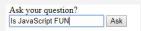




Magic Eight Ball JavaScript

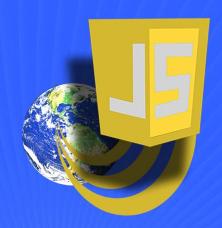
Magic 8 Ball - find out the answer to your questions

- Getting data from input field
- Random return of results
- Simple random response doesn't actually analyze anything
- const answerArray = [....]
- document.querySelector()
- button.addEventListener("click",function(){
- Math.floor(Math.random()*answerArray.length)



Ask your question?

question Ask
Is JavaScript FUN I don't know





Combination guesser Game





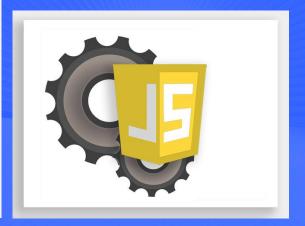
Combination guesser Game

Random values and DOM manipulation

- Can you guess the secret combination
- Random combinations
- Provides feedback when wrong value is selected - Blue guess was low - Red guess was high - Green guess was correct
- Tracks guess count
- No HTML elements all JavaScript created

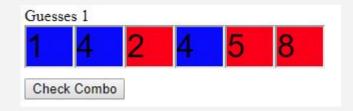






Combination guesser Game

- document.querySelector()
- button.addEventListener("click", function () {
- gameArea.innerHTML
- document.querySelectorAll()
- for (let i = 0; i < numbers.length; i++) {
- Element.style
- document.createElement("input");
- el.correct = Math.floor(Math.random() * 10);







Word Scramble - guess the word





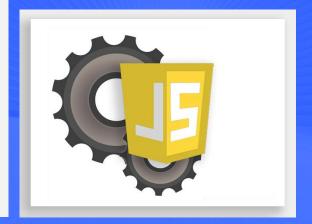
Word Scramble - guess the word

JavaScript arrays - randomize array contents Element selection and manipulation of DOM content

Simple random word scramble - check if the input matches the random word



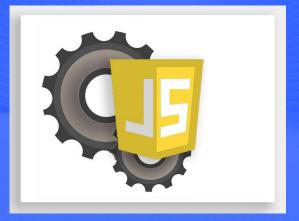
	Guess
--	-------



Word Scramble - guess the word

- document.querySelector()
- const myArray = ["javascript", "website", "html", "document", "course", "new"];
- button.addEventListener("click", function () {
- guess.classList.toggle("hidden");
- randomArray(scramble.split("")).join("");
- Math.floor(Math.random() * myArray.length);
- for (let i = arr.length 1; i > 0; i--) {





Countdown Timer





Countdown Timer

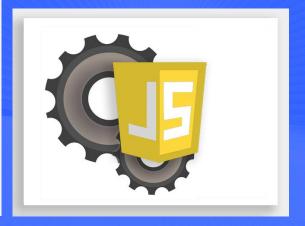
Countdown Timer - Pick a date and see how much time is left with a dynamically updating counter

- Local Storage to store end time
- Time Interval and clear for website updates
- Date calculation
 let t = Date.parse(d) Date.parse(currentDate);
- Math to get time
 let seconds = Math.floor((t / 1000) % 60);

```
2019 - 03 - 28

1 Days 4 Hours 34 Minutes 50 Seconds
```





Pattern matching game

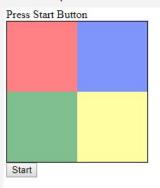




Pattern matching game

Pattern matching game Use of JavaScript to setup game board grid. Watch a sequence of light up colors. Click the colors in the same sequence to progress.

- Math to create random sequence
- setTimeout to light up element
- Element style manipulation







Click Popper Game from scratch using JavaScript





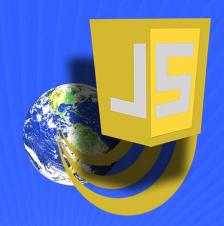
Click Popper Game

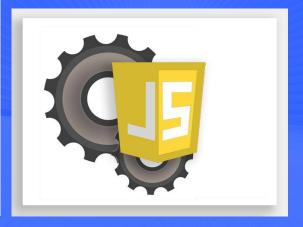
Create a fun interactive DOM based game with JavaScript. Click only + items as they show up, see how much you can score in the time provided.

- Use only JavaScript to create the gameboard
- Player scoring and element values
- Game play timer setTimeout
- Math random for random position
- Click tracking for hits of element

1	2	3	4
5	6	7	5 40
9	10	11	12

Score: -210 Lives: 3					
1	2	3	4		
5	☆ 30	7	8		
9	10	11	12		
13	14	15	16		





Hi Low Card Game from scratch using JavaScript mini project





HI LOW Game

Create an interactive simple card game which the user needs to select either higher or lower guesses on the following cards using the current card as the value.

What's next Higher or Lower card?

- Build a deck of cards array and objects construction
- Create elements
- Add style and CSS
- Random cards
- Check win/loss







Click Shape Game





Click Shape Game Reactions

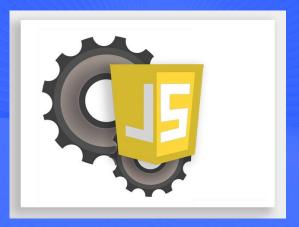
Random shapes appear on screen the objective is the user needs to click them quickly. JavaScript mini game using the DOM for element updates and manipulation.

- Only JavaScript to style and create elements
- Add event listeners
- Position elements on the screen setTimeout
- Random Color Short Function

Click the circles as quickly as you see them







Word Finding Game Word scrambler





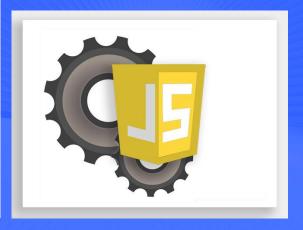
Word Finding Game

Hover over the red boxes to find scrambled words. Click the one that matches the select this word value.

- Random reorder word letters
- Words from array
- Con time it takes to solve all the words
- Manipulate elements to show red Select and show word when hover occurs.







JavaScript Car Game

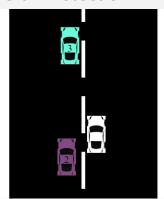




JavaScript Car Game

Drive your car avoid the other cars. Use the keyboard to move the car element. Random movement of other cars.

- Use of RequestAnimationFrame
- Movement of element on Keypress
- Element manipulation CSS and Style
- Check Collision Detection

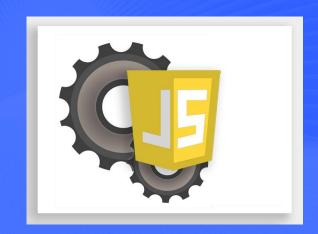






Input field Character counter





Input field Character counter

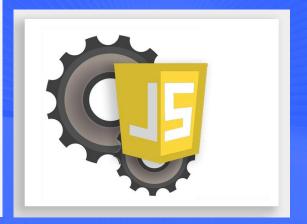
DOM selection and manipulation with input fields and updating getting values from form inputs using JavaScript

Turn red when the max number of characters is reached.



hello world

9 characters left



Element Scrolling Content Code Snippet





Element Scrolling Content

Apply JavaScript to select elements and event triggers. Use JavaScript to move element contents, track position of element and mouse. Update scroll speed.



In enim justo, rhoncus ut, imperdiet a, venenatis vitae, justo. Nullam dictum felis eu pede mollis pretium. Integer tincidunt. Cras dapibus. Vivamus elementum semper nisi. Aenean vulputate eleifend tellus.

Aenean leo ligula, porttitor eu, consequat vitae, eleifend ac, enim. Aliquam lorem ante, dapibus in, viverra quis, feugiat a, tellus. Phasellus viverra nulla ut metus varius laoreet. Quisque rutrum.

Aenean imperdiet. Etiam ultricies nisi vel augue. Curabitur ullamcorper ultricies nisi. Nam eget dui. Etiam rhoncus. Maecenas tempus, tellus eget condimentum rhoncus, sem quam semper libero, sit amet adipiscing sem neque sed ipsum.

Nam quam nunc_hlandit vel_luctus nulvinar_hendrerit id_ Click





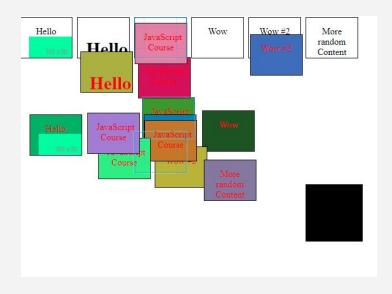
Fun with the Document Object Model



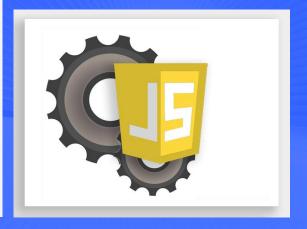


Fun with the Document Object Model

clone elements - update element style and move elements. Random Color Generator. Create elements, move elements, remove elements.







Just JavaScript Click Counter





Just JavaScript Click Counter

Build content using JavaScript Only count user clicks on dynamically created elements. Create elements and add style all using Javascript.



You clicked this 6 times

click me



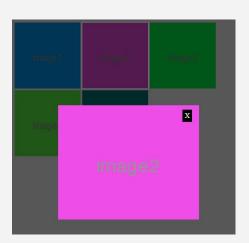
Creating an image popup window on image elements





Creating an image popup window

JavaScript event listeners on images. Once clicked image shows in div and rest of the screen is darkened. Close the div send back to hidden.







JavaScript Word Guessing Hangman game





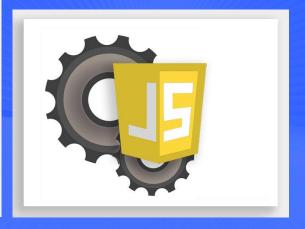
Word Guessing Hangman game

Create a dynamic and interactive game from scratch. Create interactive letter buttons, dynamically. Random word from an array. Check for letters in word show results with feedback visually.



Not found 2 letters left





JavaScript Modal Popup Example





JavaScript Modal Popup Example

Create interactive popup windows using JavaScript Manipulate elements using JavaScript. Shows modal content in element, darkens the rest of page content.





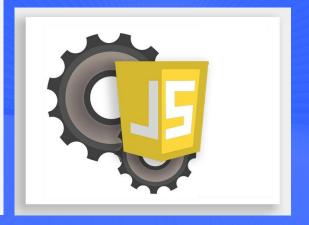


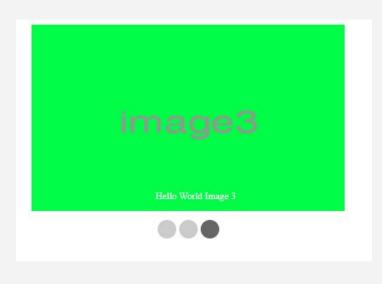
Image Carousel JavaScript animated slideshow application



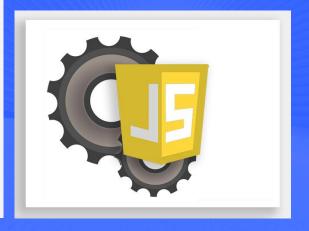


Image Carousel animated slideshow

Interval timeout creating elements using JavaScript. Animated and interactive image slideshow changes images and text.







Star Rating project click and hover events





Star Rating project

Event triggers update element classes. Change styling on hover and on click. Store results and display to the user.







Plane Bomber game

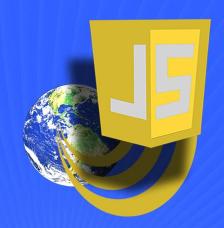




Plane Bomber game

Apply JavaScript to create an interactive game. Keyboard events tracking and movement of elements. Collision Detection of elements. Press spacebar to drop elements on target.







JavaScript Accordion component





JavaScript Accordion component

Explore how to create an accordion component for websites using JavaScript. Click to reveal hidden element content under link. Remove visible on click.

- 1 Lorem ipsum dolor sit amet consectetuer adipiscing elit
- 2 Lorem ipsum dolor sit amet consectetuer adipiscing elit

Lorem ipsum dolor sit amet consectetuer adipiscing elit

3 444 dolor sit amet, consectetuer adipiscing elit. Aenean commodo ligula eget dolor. Aenean massa. Cum sociis natoque penatibus et magnis dis parturient montes, nascetur ridiculus mus. Donec quam felis, ultricies nec, pellentesque eu, pretium quis, sem.

4 Lorem ipsum dolor sit amet consectetuer adipiscing elit





Chaser Box game





Chaser Box game

Create the game board using JavaSCript. Create one box as green and another as red. Not the same one. Track keyboard presses and move the red box until it is on top of the green one.







Creating a tooltip popup with JavaScript





Creating a tooltip popup

Explore how to apply JavaScript to create a simple tooltip code snippet. Show popup tooltip over words when mouse is on top of element.



Hello World welcome to JavaScript Course

Just another tool tip with some rand

Tool Tip Content ello World all part of the JavaScript Course



Email Exacter application





Email Extractor application

Build a dynamic email extracting application with JavaScript. Use of RegEx Pattern Match. Paste text click a button see only emails, unique emails found in string.



heloo email world real@email.com asddsa jldkjjlkj jkljl sdajlkdasjdsa kljadsj dklja reall@email.com real.test@email.com helllo hkjdshsdkjh jkh realtime@email.com

Get Emails

Emails Found 4 Emails in text:

real@email.com;real1@email.com;real.test@email.com ;real-time@email.com





Popup message

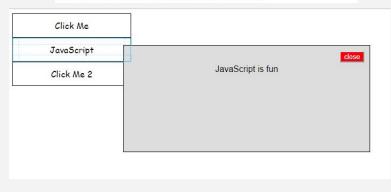




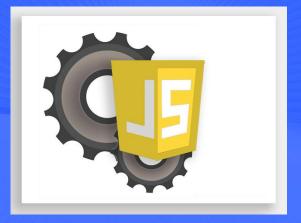
Popup message

Click an element, shows modal popup message with close button. Message contents from element attributes.

```
message="Hello World">Click Me</div>
<div data-brackets-id="1138" class="popup" data-
message="JavaScript is fun">JavaScript</div> == $0
<div data-brackets-id="1139" class="popup" data-
message="Wow cool">Click Me 2</div>
```







Clipboard - Copy and Move





Clipboard - Copy and Move

Explore how you can use JavaScript to select content from input fields and copy content to users clipboard. Get content from textarea add content to clipboard or other textarea.







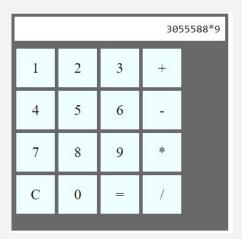
Pure JavaScript Calculator





Pure JavaScript Calculator

Use javascript arrays to create calculator dynamically. Get input values and calculate output for display to user.







Editable Shopping List



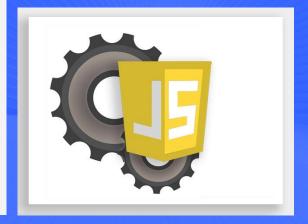


Editable Shopping List

Create Dynamic Content from input values. Add items to list, remove items from the list. Edit items inline within the list. Update list items







Placeholder Image path Generator



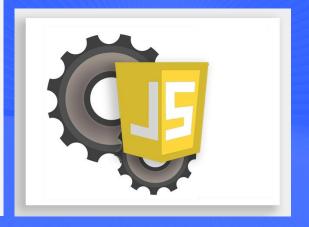


Placeholder Image path Generator

Select input values add event listeners on change update output content using JavaScript. Use input values to create path for images from placeholder







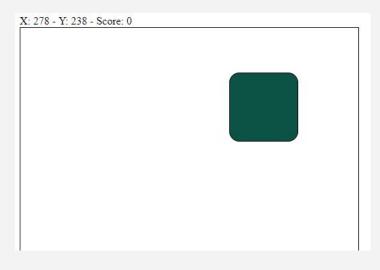
Catch element game

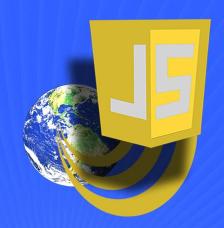




Catch element game

Moving element moves quickly, try to click the element and see what happens. (it turns red) Tracking of mouse coordinates and use of requestAnimationFrame for animation.







Element Mouse and click events JavaScript





Element Mouse and click events

Create element track time it takes player to click the element - JavaScript game. Exercise to practice element style.



Clicked in 0.802seconds





Create Form Validation





Create Form Validation

Explore how to apply JavaScript to create form input validation on form submission. Check values to ensure they meet requirements set within JavaScript conditions. Update element input field messages.

Email:	
EMAIL Invalid Email	
Password :	$\overline{}$
PASSWORD Needs to be between 3-8 characters	
User Name :	
USERNAME Required Field	
Sign Up	





Cookie get set tester



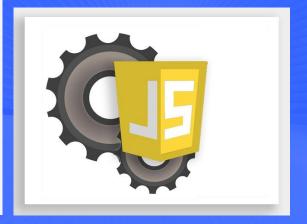


Cookie get set tester

Apply JavaScript to create interactive form to test cookies. Get Set and Delete cookies from the browser.



testName
test Value
yyyy-mm-dd
Set Cookie Get Cookie Delete Cookie All Cookies



DOM interaction Application





DOM interaction Application

Create a dynamic interactive web application to update DOM elements, add toggle classes, create new elements dynamically and remove elements. Form selection and input fields to dynamically manipulate elements.

Add Element: div ▼ Add Select Element DIV ▼
Inner Text : Laurence
Background:
Text Color:
Toggle Classes padded ▼
Update
Laurence
Laurence
JavaScript





Google Sheet data to CSV





Google Sheet data to CSV

Create CSV files for download from arrays. Create CSV for download using Google Sheet as data source. User clicks and the file will download to their computer.

А	В	C	U	E
new	course	rating	fun	
Laurence	JavaScript	5	Hello World	d
John	Doe	5	Wow , Wov	V
Mary	Doe	4	Cool Stuff	
100				

Download CSV File





Flying bird game



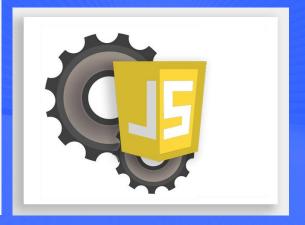


Flying bird game

Listen for keyboard presses, track and move element accordingly. JavaScript RequestAnimationFrame for animation of content. Create Moving Obstacles for difficulty. Collision detection between elements.







Number Guessing Game





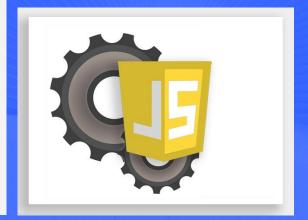
Number Guessing Game

Guess the correct number to win. Provides feedback if number was higher or lower. Takes input value.



Guess	a	num	ber	from	1	to	10	

Guess



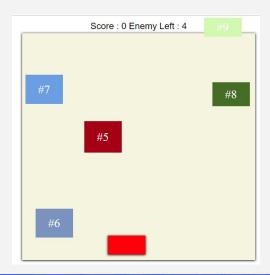
Element Catcher game





Element Catcher game

Keyboard press for element movement. Animation frame for iteration of function. Create elements and remove elements with JavaScript. Catch all the falling elements with your red box.







Alien Invader Game





Alien Invader Game

Create aliens with CSS and JavaScript. Move aliens down. Objective is to shoot with space bar to hit aliens before they get to your level. Move the ship with arrow keys.







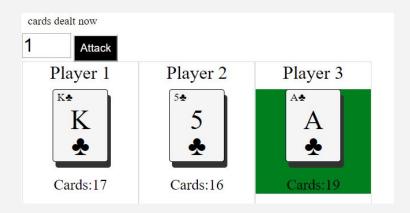
Card War Game

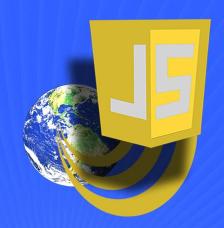


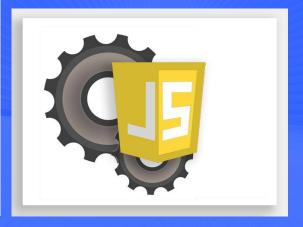


Card War Game

Create Deck of Cards. Create Game Players. Deal the cards. Visual Cards for player. All players turn over top card, whoever has the highest card gets all the cards. Objective is to get all the cards in the deck. Multiple Rounds Attack for enhanced gameplay, tie value playoff.







Congratulations on completing the section!

Thank you

This ebook uses https://developer.mozilla.org/en-US/docs/Web/JavaScript as a source for examples. Check out more about JavaScript at MDN.

Find out more about my courses at http://www.discoveryvip.com/

Course instructor: Laurence Svekis - providing online training to over 500,000 students across hundreds of courses and many platforms.

https://www.udemy.com/javascript-course-projects

