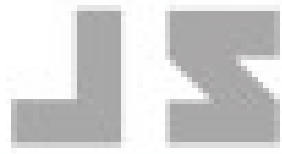




## WELCOME TO FRONT-END WEB DEVELOPMENT

Please sit next to a different classmate  
and write your name on your name tag.

Wi-fi: GA-Guest  
pw: yellowpencil



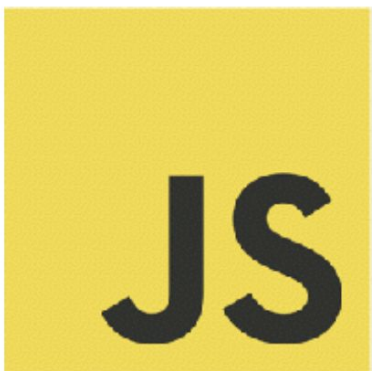
**JavaScript +  
jQuery  
RECAP**

---

# A quick note...

We're learning **JavaScript**, not Java.

Java and JavaScript are actually two different languages.



!= =



---

# Three basic layers of web-development

**BONES**

**Content**

HTML

**SKIN**

**Presentation**

CSS

**BRAIN**

**Behavior**

JavaScript

---

# Behavior?

Think **interaction** or **functionality**

# Some examples of interactivity

TIME

A Year In Space

TRAILER

Is It Better to Rent or Buy?

By MIKE BOSTOCK, SHAN CARTER and ARCHIE TSE

The choice between buying a home and renting one is among decisions that many adults make. But the costs of buying are more complicated than for renting, making it hard to tell which is the answer to this question, our calculator takes the most important factors into account and computes the equivalent monthly rent.

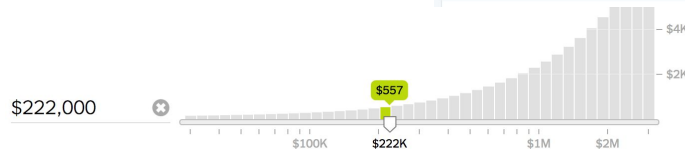
Home Price

A very important factor, but not the only one. Our estimate will improve as you enter more details below.

Trailer


1

2



RITCHIEY - Official @RitcheyLogic · 24h

Want to own a custom painted Swiss Cross? We're helping Ben sell his as he recovers from a TBI. [ow.ly/Ok2f30bd41k](https://ow.ly/Ok2f30bd41k)



Like

1

8

16

Josh Ferenc

19 hrs · 🌐

Remember when there was a debate between Payton Manning or this guy as the # 1 pick in the NFL draft? This is a good letter of self reflection from a guy who hit rock bottom.



THE PLAYERS' TRIBUNE

Letter to My Younger Self | By Ryan Leaf

Dear 21-year-old Ryan: I'm sorry to have to tell you this, but the truth is... You don't

Like

Comment

Share

# What can JavaScript do?

**1**

Access  
Content

**2**

Modify  
Content

**3**

Program  
Rules

**4**

React to  
Events

# What can JavaScript do?

**1**

Access Content

**2**

Modify  
Content

**3**

Program  
Rules

**4**

React to  
Events

You can use JS to select any element, attribute or text from an HTML page.

For example:

- Find out what the user entered into a text input when they submit a form
- Find out whether the user checked a checkbox



# What can JavaScript do?

**1**

Access  
Content

**2**

Modify Content

**3**

Program  
Rules

**4**

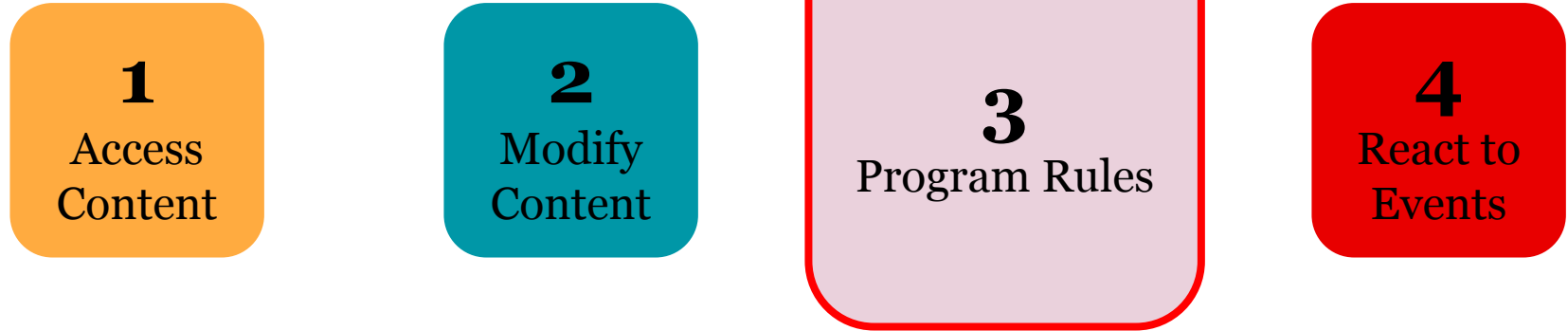
React to  
Events

You can use JS to add elements, attributes and text to the page (or remove them)

For example:

- Add an error message below a form
- Change the size, position, color, or other styles for an element

# What can JavaScript do?



You can specify a set of steps (instructions) for the browser to follow

For example:

- Have images/text fade in if the user has scrolled to a certain portion of the page
- Check to make sure the user has entered a valid email address into a form and display
- an error message if not

# What can JavaScript do?

**1**

Access  
Content

**2**

Modify  
Content

**3**

Program  
Rules

**4**

React to Events

You can specify that a script should run when an event occurs

For example:

- When a button is clicked
- When the cursor hovers over an element
- When the user types information into a form

---

# Programming in pseudo-code

Pseudo-code is:

- not a programming language
- a simple way of describing a set of instructions that solve a specific problem
- the perfect way of planning the development of a computer program
- varied in style: it can be very close to real programming language or look like prose

```
Put water into kettle;  
Turn kettle on;  
Wait for water to boil;  
Put teabag in cup;  
Add water to cup;  
Remove teabag;  
Serve;
```

```
IF X > Y  
    PRINT "X is greater than Y"  
ELSE  
    PRINT "Y is greater than X"  
END
```

---

# Programming basics

Computer programs are constructed using:

- **input data:** hardcoded in the program or provided by the user (e.g. *“Date of birth?”*)
  - **output data:** normally the result of processed input data (e.g. *“You are over 21.”*)
  - **variables:** markers that store values (e.g. `dateOfBirth`)
  - **basic arithmetic:** addition, subtraction, multiplication, division (e.g. `currentDate - dateOfBirth`)
  - **simple comparisons:** boolean logic (e.g. `userAge >= ageLimit`)
    - Equals `=`, Greater than `>`, Less than `<`, Greater than or equal to `>=`, Less than or equal to `<=`, Does not equal `<>`, And `&&`, Or `||`, Not `!`
  - **logical operations**
    - **if** *condition true* **then** *output* **else** *alternative output*
    - **while** *condition true* **do** *operation*
-

---

# Applying JavaScript

There are two ways to apply JS to HTML

## Internal

```
<body>
  ...
  <script>
    alert("Hello World!");
  </script>
</body>
```

## External

```
<body>
  ...
  <script src="hello.js"></script>
</body>
```

---

# Why jQuery?

*“it is a fast and concise **JavaScript Library** that simplifies HTML/DOM manipulation, event handling, effects and animation for rapid web development across all modern web-browsers”*

---