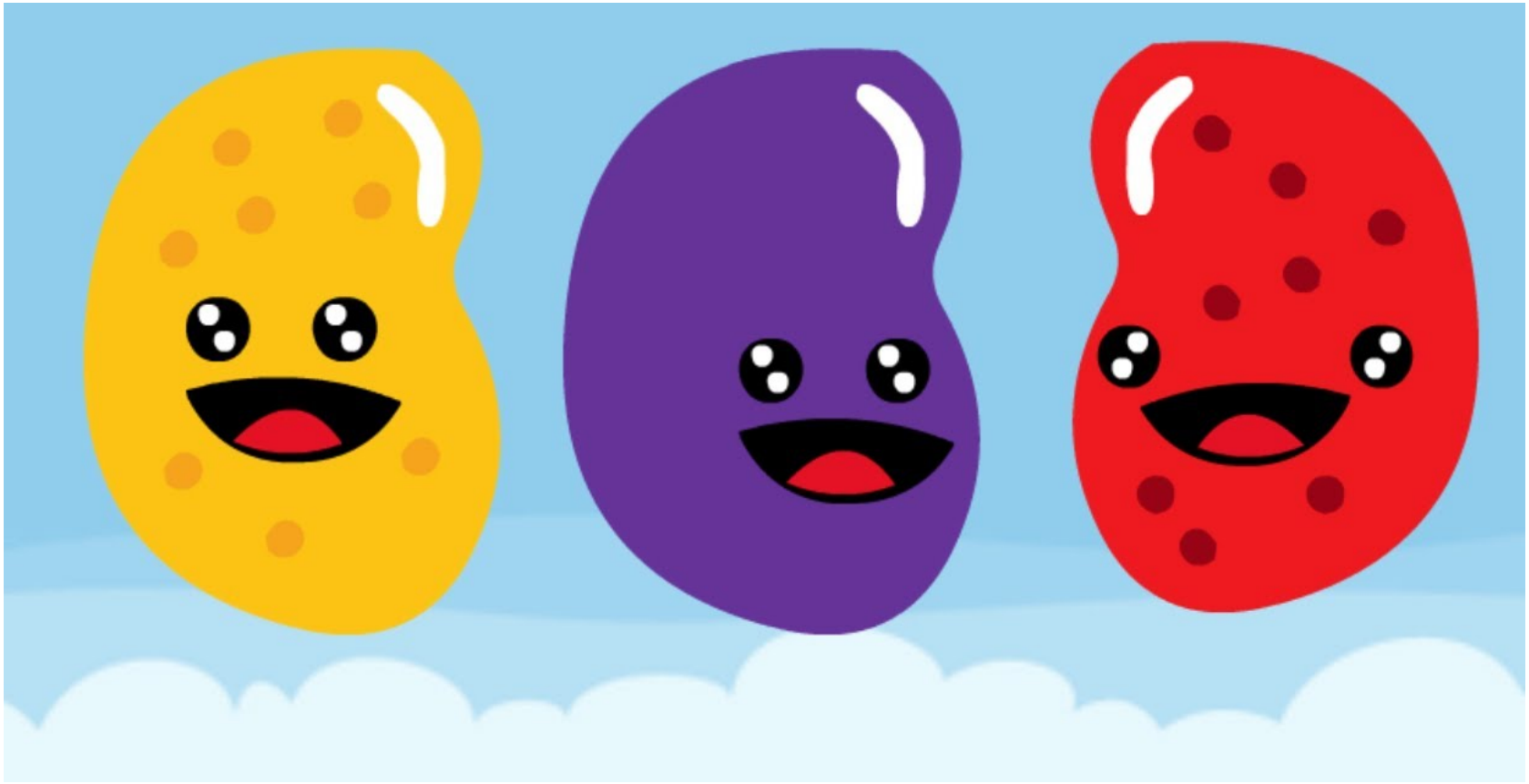
JavaScript Juggernauts

This will soon be you…

JavaScript Juggernauts.

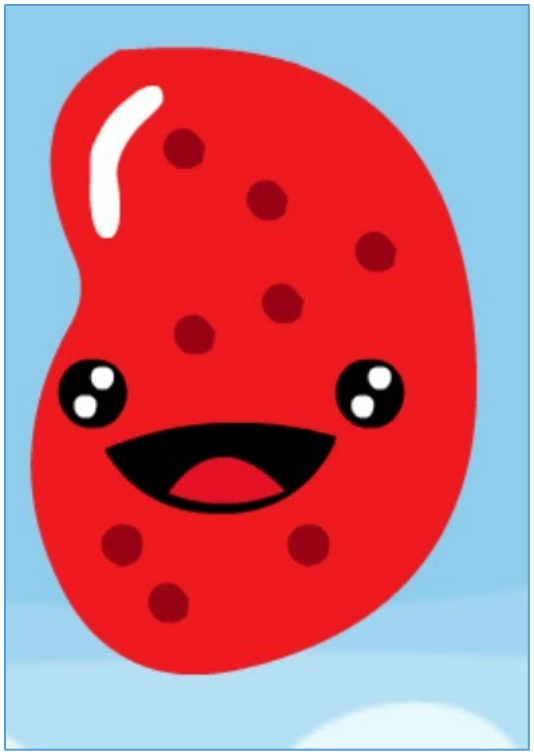
But right now…

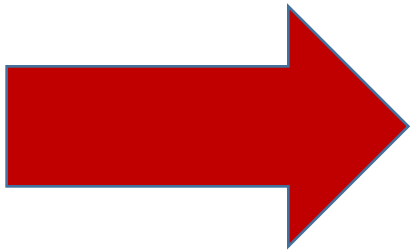


Maybe feeling like

JavaScript Jellybeans.

Transformation to Come





HANG IN THERE!

Objects

Demo Time

Instructor: Demo

(GoodArray.html | 4-GoodArray)

Demo Time

Instructor: Demo

(JoanOfArcArrays.html | 5-JoanOfArcArrays)

Associated Data ==/== Arrays

```
var joanOfArcInfoParts = ["Real Name", "Grew Up Where", "Known For", "Scars", "Symbolism"];


var joanOfArcInfoValues = ["Jehanne la Pucelle.", "Domremy, a village in northeastern France.",
  "Peasant girl, daughter of a farmer, who rose to become Commander of the French army.",
  "Took an arrow to the shoulder and a crossbow bolt to the thigh while trying to liberate Paris.",
  "Stands for French unity and nationalism."];
```

Relating two separate arrays is not fun.

Demo Time

Instructor: Demo

(gandalf-the-grey-objects.html | 30-GandalfTheGreyObjects)

Gandalf – The Object

```
var gandalf = {
  "real name": "Gandalf",
  "age (est)": 11000,
  race: "Maia",
  haveRetirementPlan: true,
  aliases: [
    "Greyhame",
    "Stormcrow",
    "Mithrandir",
    "Gandalf the Grey",
    "Gandalf the White"
  ]
}
// Object properties can be accessed with "bracket notation"
alert("My name is " + gandalf["real name"]);
// Or with "dot notation"
if (gandalf.haveRetirementPlan) {
  // Or with a variable that matches the name of the property
  var ageProperty = "age (est)";
  var years = gandalf[ageProperty];
  alert("My 401k has been gathering interest for " + years + " years!");
}
// You can access arrays and their properties from an object
alert("I have more than " + gandalf.aliases.length + " aliases");
// Non-existent properties return undefined
alert("My designation is " + gandalf["designation"]);
```

Gandalf's "**properties**" and "**values**" are associated in object form, making it easy to recall specific data.

Objects Visualized

```
var gandalf = {
```

```
    "real name" : "Gandalf",
    "age (est)" : 11000,
    "race" : "Maia"
}
```

This is Gandalf. According to code… Gandalf is an **Object.**

Objects Visualized

```
var gandalf = {
  "real name" : "Gandalf",
  "age (est)" : 11000,
  "race" : "Maia"
}
```

These are Gandalf's **properties** (like descriptors).

Objects Visualized

```
var gandalf = {
```

```
    "real name" : "Gandalf" ,
    "age (est)" : 11000 ,
    "race" : "Maia"
}
```

These are the "**values**" of Gandalf's **properties.**

Objects Visualized

```
var gandalf = {
```

```
    "real name" : "Gandalf" ,
    "age (est)" : 11000 ,
    "race" : "Maia"
}
```

Thus: gandalf["race"] = "Maia

Demo Time

Instructor: Repeat Demo

(gandalf-the-grey-objects.html | 30-GandalfTheGreyObjects)

Code Dissection / Creation: Basic Objects

- With a partner, spend the next few moments studying the code just slacked to you.
- Then, write code below each comment to log the relevant information about the provided car object.
- **Bonus:** If you finish early, create a brand new object of your own. Slack out a snippet of the code to the class when you are done. Be Creative!

Demo Time

Instructor: Demo in Browser

(carGame_Solved.html | 8-CarGame)

Code Creation: Run that Car!

- Using the code from the previous activity as a starting point, create a complete application such that:
  - Users can enter keyboard input (letters).
  - Each of the car's methods are assigned to a key.
  - When the user presses a key it calls the appropriate function.
  - These letters also trigger a global function called reWriteStats() that logs the car’s make, model, color, mileage, and isWorking status to the console.
  - **HINT:** You will need to use the document.onkeyup() function to collect input from the user's keyboard.

Questions