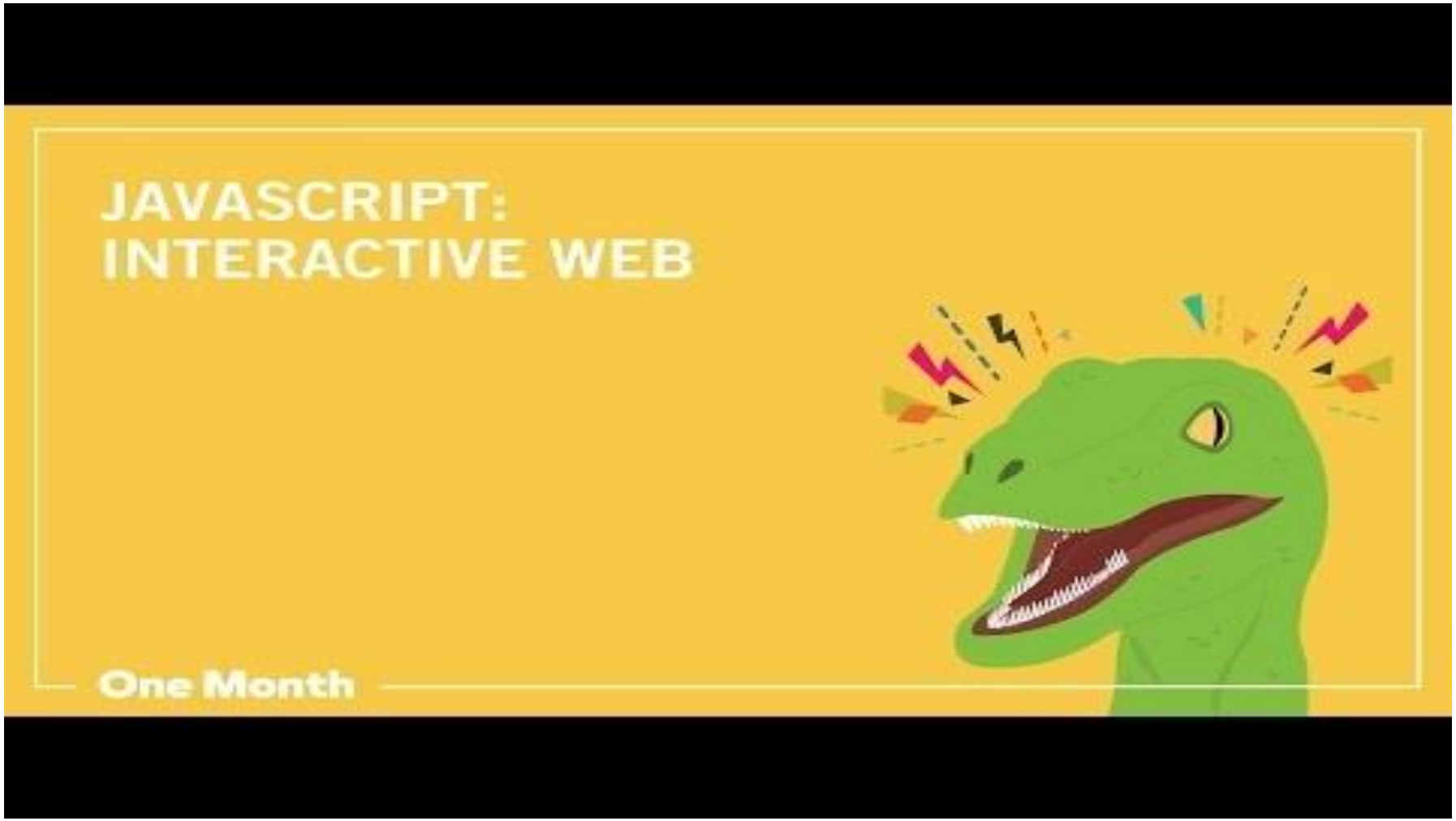
Before We Get Started, Let's Learn Why Javascript is a Nice Language



Writing a Javascript Function: Practice

- Using repl.it, we are going to write our first Javascript Function!
- The following exercises will help you realize the type of logic that is needed in most coding which is Our 4CoreConcepts **(Variables, Functions, Conditionals, and Loops)**
- **Remember:** We are going to use the command console.log() to ask the computer to print out our answers and see if it is correct.
- **Example:** console.log(addTwoNumbers(1,2));
  - This command uses console.log to print out the result of 1 and 2 when inputted into the function addTwoNumbers

Exercise #1: Warm-Up with Functions

- Write a Javascript function that will multiply the two numbers given and return them. Look at the following function for guidance.

```
function multiplyNums(numToBeMultiplied1, numToBeMultiplied2)
{
    //Your Code goes Here. Please use the keyword return
    //at the end of the function to give your answer.
    //Example: return 6+5;
}

console.log(multiplyNums(3,4));
```

Answer for Exercise #1: Functions

- Remember that there are more than one ways to code a solution to any problem. Here is one:

main.js saved

```
1  function multiplyNums(numToBeMultiplied1, numToBeMultiplied2){
2    return numToBeMultiplied1*numToBeMultiplied2;
3  }
4  console.log(multiplyNums(3,4));
```

```
Native Browser JavaScript
12
=> undefined
```

- Tip: remember that in Javascript, operations such as multiplication (*), division (/), addition (+), and subtraction (-) are modeled as so.

Javascript Exercise #2: Functions and Conditionals

- Write a program to check if a number given is between 0 and 100. If it is, add 5 to the number and return the value. Otherwise, return 0. Look at the following function for guidance.

```
function checkNum(numToBeChecked)
{
     //Your Code goes here. Please use the keyword return
    //at the end of the function to give your answer.
    //Example: return 6*3;
}
console.log(checkNum(200));
console.log(checkNum(45));
```

Tip: Remember that you can make two statements at a time with symbols that mean **and** (&&), **or** (||) , **not**(!), **equal**(==), **not equal** (!=) , **greater than**(>) or **less than** (<).

Example: if (randomVar<34 && randomVar!=3) means *if randomVar is less than 34 and does not equal 3.*

Answer for Javascript Exercise #2 Functions and Conditionals

- Remember that there are more than one ways to code a solution to any problem. Here is one:

main.js history

```
1   function checkNum(numToBeChecked)
2           {
3               if (numToBeChecked>0&&numToBeChecked<100)
4               {
5                   return numToBeChecked+5;
6               }
7               else
8               {
9                   return 0;
10              }
11          }
12          console.log(checkNum(200));
13          console.log(checkNum(45));
```

```
Native Browser JavaScript
>
0
50
=> undefined
>
```

Exercise #3: Functions, Variables, Conditionals, and Loops

- A last thing to practice is loops. Loops are a way to tell the computer: "I want you to do this set of instructions X amount of times".
- This is useful because instead of **you** copying and pasting the same code millions of times, the computer does the work for you.
- Example: If you are wanting to print the numbers 1 through ten, what seems like a more easy way:

main.js saved

```
1   for (var i = 0; i<11; i++)
2   {
3     console.log(i);
4   }
```

```
1   var i = 0;
2   console.log(i);
3   i=i+1;
4   console.log(i);
5   i=i+1;
6   console.log(i);
7   i=i+1;
8   console.log(i);
9   i=i+1;
10  console.log(i);
11  i=i+1;
```

It goes on twice as much as shown

Final Exercise: Variables, Functions, Coditionals, and Loops

- We will now write a Javascript function with all 4CoreConcepts!

- Please write a Javascript Function that does the following:
  - Creates a variable of whatever name you want with value 5.
  - Make one loop that will run 10 times. In this loop, multiply your variable times 6 each time and print it with console.log
  - After being multiplied, check your variable to see if it is greater than 100. If it is, return 2000.

- **Remember:** When your function returns a number, it breaks out of any function, loop, or conditional, no matter what!

Final Exercise Answer: Variables, Functions, Conditionals, and Loops

- **Tip**: If a problem seems overwhelming, break it into mini-problems and continue. You'll solve it eventually!
- Here's one solution:

main.js saved

```
1   function youCanDoThis()
2   {
3     var myNumber = 5;
4     for (i = 0; i < 11; i++) {
5       myNumber = myNumber*6;
6       console.log(myNumber);
7       if (myNumber>100){
8         return 2000;
9       }
10    }
11
12  }
13
14  console.log(youCanDoThis());
```

```
Native Browser JavaScript
30
180
2000
=> undefined
```