

Learn to code in 60 mins

Learn@Lunch - Pravin Paratey

About Me

- Coding / Programming for 25 years, 15 professionally.
- Head of Engineering for IHT and CORGI.
- Worked at 5 startups, co-founded 3, ex-Facebook.

Why
should I
care?





Setting up your laptop



Lesson 1 - Hello World!

```
<html>
  <head>
    <title>Hello World!</title>
  </head>
  <body>
    <h1>Hello World!</h1>
  </body>
</html>
```

1. Open Notepad.
2. Write the code you see to the left.
3. Save the file as lesson.html on your Desktop.
4. Navigate to the Desktop and double click the file to see it in your browser.
5. Tada!
6. **Exercise:** Try adding some more text before </body> and see what happens

Lesson 2 - Variables

```
<html>
  <head>
    <title>Hello World!</title>
  </head>
  <body>
    <h1>Hello World!</h1>
    <script>
      var name = "Pravin";
      document.writeln("My name is " + name);
    </script>
  </body>
</html>
```

Lesson 2 - Variables

```
<html>
  <head>
    <title>Hello World!</title>
  </head>
  <body>
    <h1>Hello World!</h1>
    <script>
      var name = "Pravin";
      document.writeln("My name is " + name);
    </script>
  </body>
</html>
```

1. A variable is a placeholder to which you can assign a value.
2. A variable can be named anything as long as it starts with a letter.
3. A variable can have a string value, an integer (number), or more complex values (arrays).
4. Try changing the word “name” to “apricot”.
5. **Exercise:** Try showing “My name is X and I like Y” on the screen.

Lesson 2 - Variables

```
<html>
  <head>
    <title>Hello World!</title>
  </head>
  <body>
    <h1>Hello World!</h1>
    <script>
      var name = "Pravin";
      var sport = "Chocolate";
      document.writeln("My name is " + name);
      document.writeln(" and I like " + like);
    </script>
  </body>
</html>
```

Did you get something similar?

Lesson 3 - Forms

```
<h1>Hello World!</h1>
<form id="myForm" onsubmit="onSubmit()">
  <label for="name">Name</label>
  <input type="text" id="name" name="name">
  <br>
  <label for="sport">Sport</label>
  <select id="sport">
    <option value="football">Football</option>
    <option value="pingpong">Ping Pong</option>
    <option value="golf">Golf</option>
    <option value="chess">Chess</option>
  </select>
  <br>
  <input type="submit" id="submit">
</form>
<script>
function onSubmit() {
  var name = document.getElementById("name").value;
  var sport = document.getElementById("sport").value;
  document.writeln("My name is " + name);
```

- You use forms everyday!
- Forms allow computers to capture human input.
- `<input` lets you capture text
- `<select` with `<option` is used to restrict input to predefined choices.
- **Exercise** - Try adding an input field to capture the user's email address, and then print it when they hit the submit button.

Lesson 3 - Forms

```
<form id="myForm" onsubmit="onSubmit()">
  <label for="name">Name</label>
  <input type="text" id="name" name="name">
  <br>
  <label for="email">Email</label>
  <input type="text" id="email" name="email">
  <br>
  <label for="sport">Sport</label>
  ...
  <br>
  <input type="submit" id="submit">
</form>
<script>
function onSubmit() {
  var name = document.getElementById("name").value;
  var sport = document.getElementById("sport").value;
  var email = document.getElementById("email").value;
  document.writeln("My name is " + name);
  document.writeln(" and I like " + sport);
  document.writeln(". My email address is " + email);
}
</script>
```

Did your code look like this?

Lesson 4 - Control structures - if/then/else

```
<script>
function onSubmit() {
    var name = document.getElementById("name").value;
    var sport = document.getElementById("sport").value;
    document.writeln("My name is " + name);
    document.writeln(" and I like " + sport);
}
```

```
var random = Math.floor(Math.random() * 10 + 1);
document.writeln("<br><br>I just generated a random number: " + random);
</script>
```

- Fundamental control structure in **every** language.
- Allows you to choose what path to take

Lesson 4 - Control structures - if/then/else

```
function onSubmit() {  
    var name = document.getElementById("name").value;  
    var sport = document.getElementById("sport").value;  
    document.writeln("My name is " + name);  
    document.writeln(" and I like " + sport);  
}  
  
var random = Math.floor(Math.random() * 10 + 1);  
document.writeln("<br><br>I just generated a random number: " + random);  
  
if(random <= 5) {  
    document.writeln("<br><br>You are on team A");  
} else {  
    document.writeln("<br><br>You are on team B");  
}  
  
</script>
```

Lesson 4 - Control structures - if/then/else

```
function onSubmit() {  
    var name = document.getElementById("name").value;  
    var sport = document.getElementById("sport").value;  
    document.writeln("My name is " + name);  
    document.writeln(" and I like " + sport);  
}  
  
var random = Math.floor(Math.random() * 10 + 1);  
document.writeln("<br><br>I just generated a random number: " + random);  
  
if(random <= 5) {  
    document.writeln("<br><br>You are on team A");  
} else {  
    document.writeln("<br><br>You are on team B");  
}  
  
</script>
```

Exercise – If the user selects your favourite sport, display an additional message.

Lesson 4 - Control structures - if/then/else

```
function onSubmit() {  
    var name = document.getElementById("name").value;  
    var sport = document.getElementById("sport").value;  
    document.writeln("My name is " + name);  
    document.writeln(" and I like " + sport);  
    if (sport == "chess") {  
        document.writeln(". Check mate!")  
    }  
}
```

Did you write something similar?

```
var random = Math.floor(Math.random() * 10 + 1);  
document.writeln("<br><br>I just generated a random number: " + random);
```

Programmer joke

A wife sends her programmer husband to the grocery store for a loaf of bread.

On his way out, she says, "And if they have eggs, get a dozen."

Her husband returns home with 12 loaves of bread.

Lesson 5 - Styling

```
<title>Hello World!</title>
<style>
body {
  font-family: cursive;
  font-size: 18;
  color: blue;
  padding:20;
}
#myForm {
  background-color: yellow;
  padding: 20;
}
</style>
</head>
<body>
```

- Styles determine the look and feel of the page and its elements.
- Styling is usually independent of code, which means you can make sure it works before making it pretty.
- Try changing the **color** to **salmon**, **indianred**, **plum**, or **lime**.
- Try changing **font-family** to **serif**, **fantasy** or **monospace**.
- Over 360+ properties

Exercise - Make the headline (**h1**) larger

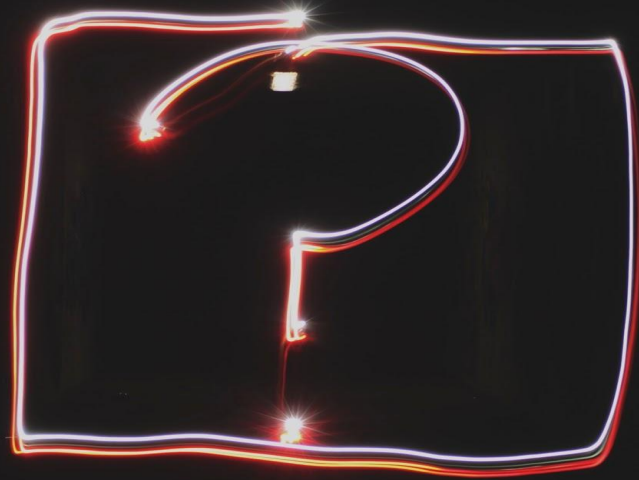


Coding isn't
hard or scary

Coding is
fun!

Learn More

- Online (Free / Cheap)
 - [Coursera](#)
 - [FreeCodeCamp](#)
 - [CodeAcademy](#)
 - [University of Reading](#)
 - [Open University](#)
 - [Udemy](#)
 - [Code for Life](#)
 - [Code.org](#)
 - Youtube
- Real World (Free)
 - [Girls Who Code](#)
 - [Founders and Coders](#)
- Real World (Not-so-cheap)
 - University Adult Education Programs
 - [General Assembly](#)
 - [Makers Academy](#)



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