JavaScript
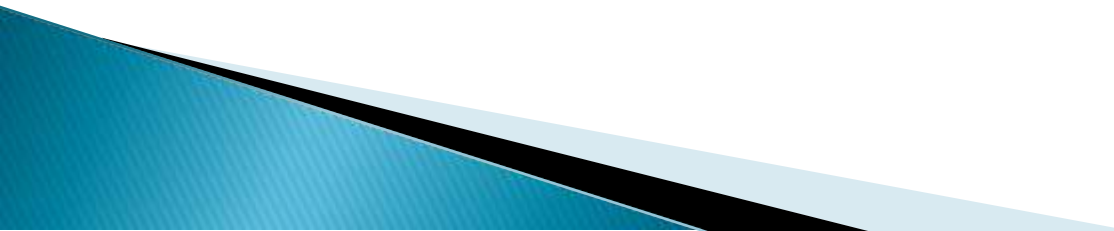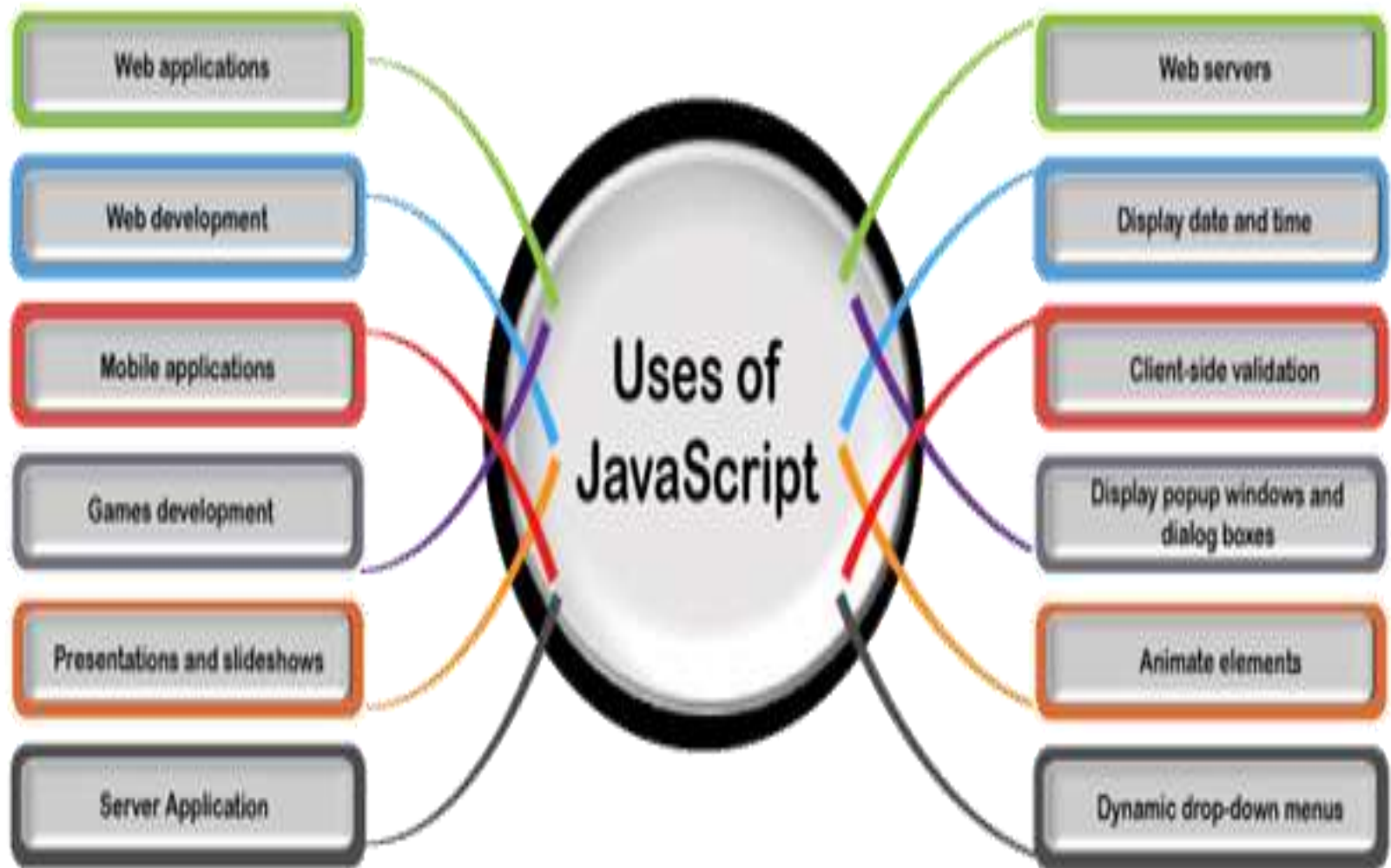
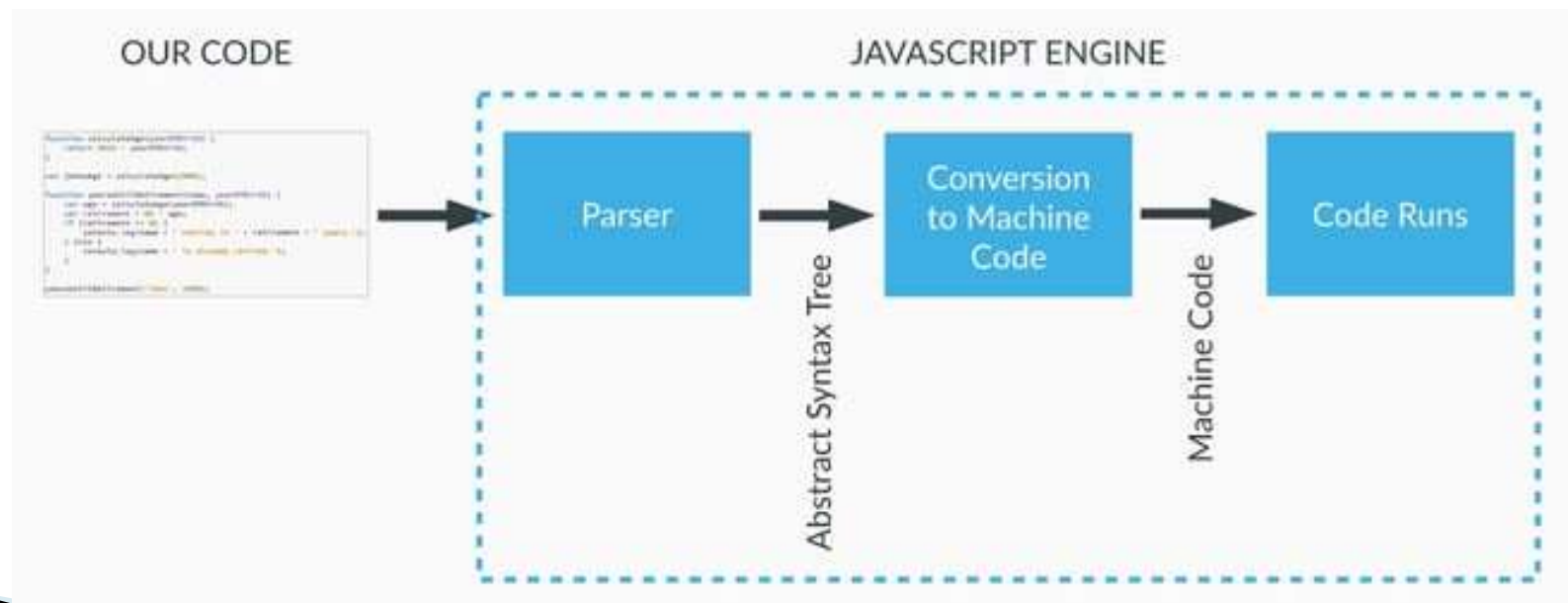# What is JavaScript

- JavaScript is a programming language invented to meet the needs of the evolving landscape of the internet.
- JavaScript can create different kinds of software such as games, computer programs, web applications, and even technologies like blockchain.
- JavaScript is arguably the most popular programming language for the web.

Uses of JavaScript

- Web applications
- Web development
- Mobile applications
- Games development
- Presentations and slideshows
- Server Application
- Web servers
- Display date and time
- Client-side validation
- Display popup windows and dialog boxes
- Animate elements
- Dynamic drop-down menus

How does JavaScript work?

▸ JavaScript is considered a client-side scripting language, which means that it operates on the user's browser and does not function on an external device.

Working with Javascript

▸ ## First Method

```
<script src="yourFile.js"></script>
```

▸ ## Second Method

```
<script
type="text/JavaScript">JavaScript code
goes here</script>
```

JavaScript Display Possibilities

▸ JavaScript can "display" data in different ways:
  ◦ Writing into an HTML element, using innerHTML.
  ◦ Writing into the HTML output
    using document.write().
  ◦ Writing into an alert box, using window.alert().

Using innerHTML

```
<!DOCTYPE html>
<html>
<body>

<h2>My First Web Page</h2>
<p>My First Paragraph.</p>

<p id="demo"></p>

<script>
document.getElementById("demo").innerHTML = 5 + 6;
</script>

</body>
</html>
```

using document.write()

```
<!DOCTYPE html>
<html>
<body>

<h1>My First Web Page</h1>
<p>My first paragraph.</p>

<script>
document.write(5 + 6);
</script>

</body>
</html>
```

using document.write()

▸ Using document.write() after an HTML document is loaded, will delete all existing HTML

```
<!DOCTYPE html>
<html>
<body>

<h2>My First Web Page</h2>
<p>My first paragraph.</p>

<button type="button" onclick="document.write(5 + 6)">Try it</button>

</body></html>
```

using window.alert()

- ## Window - optional

```
<!DOCTYPE html>
<html>
<body>

<h2>My First Web Page</h2>
<p>My first paragraph.</p>

<script>
window.alert(5 + 6);
</script>

</body>
</html>
```

What JS can do?

- JavaScript Can Change HTML Content

document.getElementById("demo").innerHTML = "Hello JavaScript";

```
<!DOCTYPE html>
<html>
<body>
<h2>What Can JavaScript Do?</h2>
<p id="demo">JavaScript can change HTML content.</p>

<button type="button"
onclick='document.getElementById("demo").innerHTML = "Hello
JavaScript!"'>Click Me!</button>

</body></html>
```

What JS can do?

- JavaScript Can Change HTML Attribute Values

```
<!DOCTYPE html>
<html><body>
<h2>What Can JavaScript Do?</h2>
<p>JavaScript can change HTML attribute values.</p>

<p>In this case JavaScript changes the value of the src (source)
attribute of an image.</p>
<button
onclick="document.getElementById('myImage').src='pic_bulbon.gif'">
Turn on the light</button>
<img id="myImage" src="pic_bulboff.gif" style="width:100px">
<button
onclick="document.getElementById('myImage').src='pic_bulboff.gif'">
Turn off the light</button>
</body></html>
```
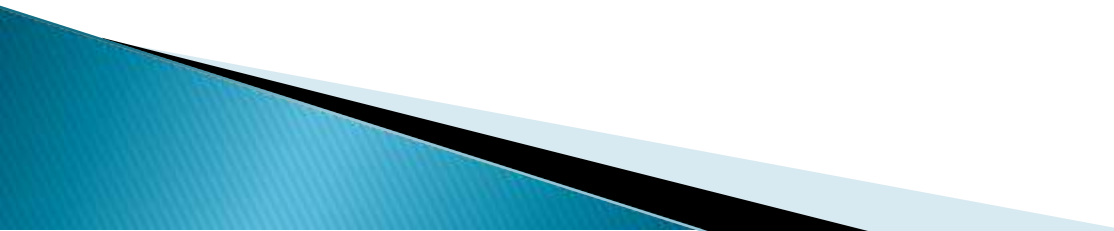
What JS can do?

▸ JavaScript Can Change HTML Styles (CSS)

```
<!DOCTYPE html>
<html>
<body>

<h2>What Can JavaScript Do?</h2>

<p id="demo">JavaScript can change the style of an HTML
element.</p>

<button type="button"
onclick="document.getElementById('demo').style.fontSize='35px'"
>Click Me!</button>

</body></html>
```

JavaScript Print

- JavaScript does not have any print object or print methods.
- You cannot access output devices from JavaScript.
- The only exception is that you can call the window.print() method in the browser to print the content of the current window.

```html
<!DOCTYPE html>
<html>
<body>

<h2>The window.print() Method</h2>

<p>Click the button to print the current page.</p>

<button onclick="window.print()">Print this
page</button>

</body>
</html>
```