COMP6080
Web Front-End Programming

Javascript

In the web browser

Where to put your browser-based Javscript

Javascript is a programming language, that has two main uses:

1. Javascript used to manipulate the DOM in a web browser (discussed in another lecture)
2. Javascript used to write scripts with NodeJS (discussed in another lecture)

Today we are focusing on (1).

More specifically, what are the different ways you can include your Javascript in a page run by a web browser?

HOW code is included

Code can either be included inline (part of the page) or included via external link (URL to resource)

inline

```
<script type="text/javascript">
const a = 1 + 2;
console.log(a);
</script>
```

mypage1.html

external

```
<script type="text/javascript" src="mywork.js">
</script>
```

mypage2.html

```
const a = 1 + 2;
console.log(a);
```

mywork.js

HOW code is included

Linking javascript externally: ✓

- Improvements performance when browser cache is utilised
- Reduces the time it takes for initial html document to be received (smaller file)

Placing Javascript inline:

- Avoids network requests (potentially costly) for script if file is not yet loaded

WHERE code is included

```html
<html>
  <head>
    <!-- CAN INCLUDE IN HEADER -->
  </head>
  <body>
    <!-- CAN INCLUDE IN TOP OF THE BODY -->
    <!-- MOST OF YOUR PAGE -->
    <!-- CAN INCLUDE IN BOTTOM OF THE BODY -->
  </body>
</html>
```

Generally speaking you can either:

1. Include in the <head> or at the top of <body> if you **need** your javascript to run prior to your DOM elements doing initial render
2. Include at the end of <body> if you need **do not need** your javascript to run prior to your DOM elements initially rendering ✓

We usually do (2)