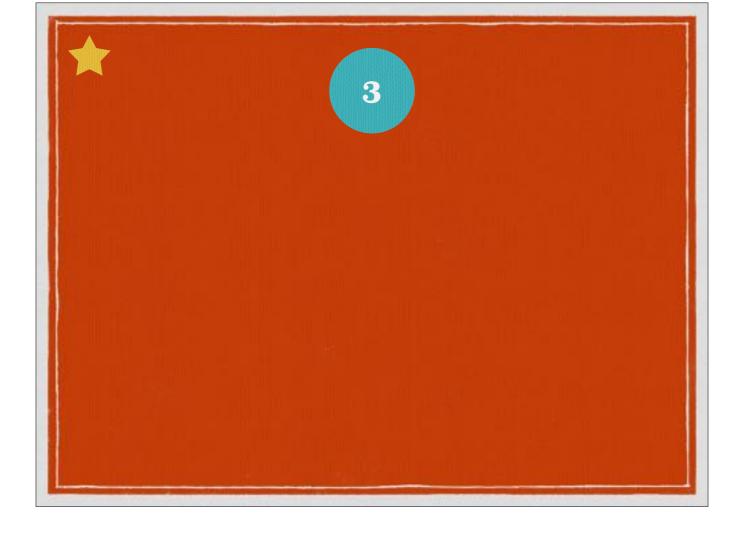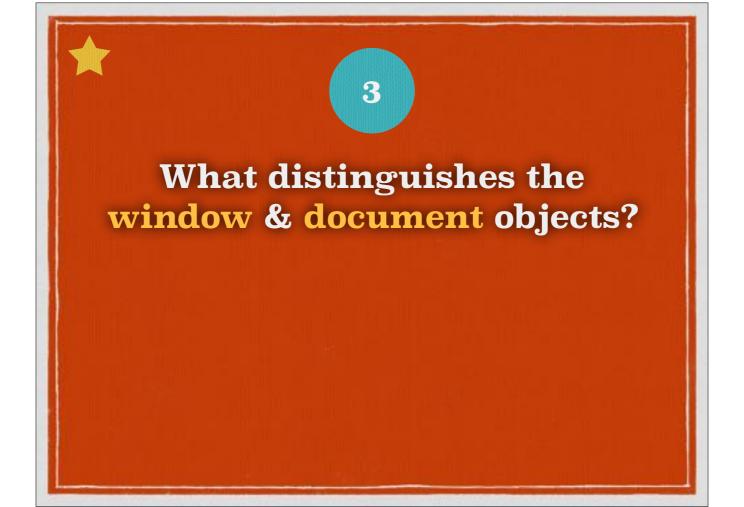Pre-reading:
http://stackoverflow.com/questions/11077857/what-are-long-polling-websockets-server-sent-events-sse-and-comet
http://stackoverflow.com/questions/19867599/what-is-the-difference-between-localstorage-sessionstorage-session-and-cookies
HTML & JS portions of https://github.com/h5bp/Front-end-Developer-Interview-Questions
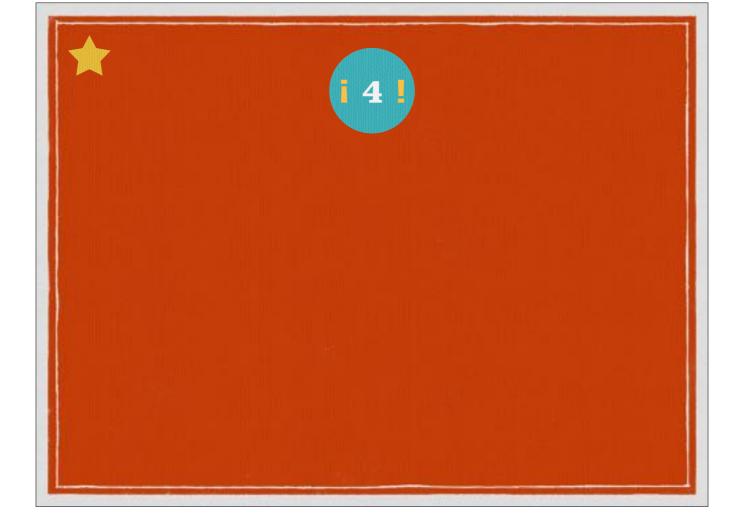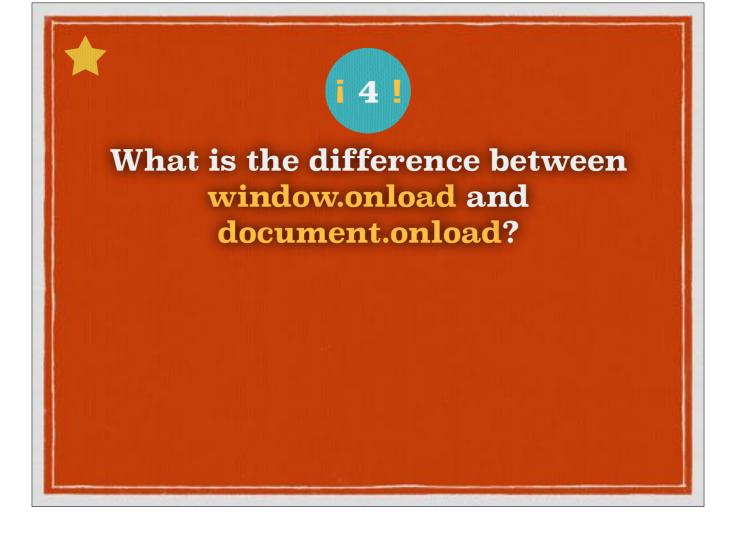
3

What distinguishes the window & document objects?

3

What distinguishes the window & document objects?

`window` is a DOM API object that represents the browser and its properties/methods (e.g. `innerWidth`, `setTimeout`, `console`), and acts as the global JS scope object. The property `window.document` is a DOM node that represents the currently loaded web page and its elements.

¡ 4 !

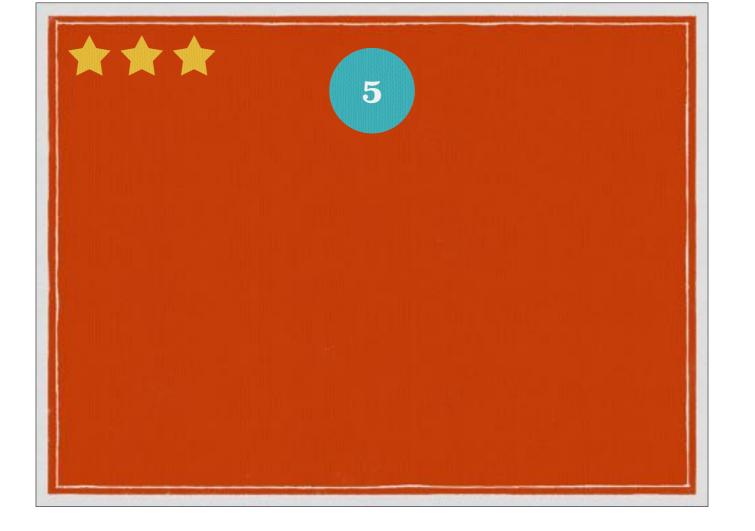**What is the difference between window.onload and document.onload?**

¡ 4 !

What is the difference between window.onload and document.onload?

Document.onload runs when the DOM is ready, before images, iFrames, etc. Window.onload runs when everything is ready, including scripts, css, images, etc.

5

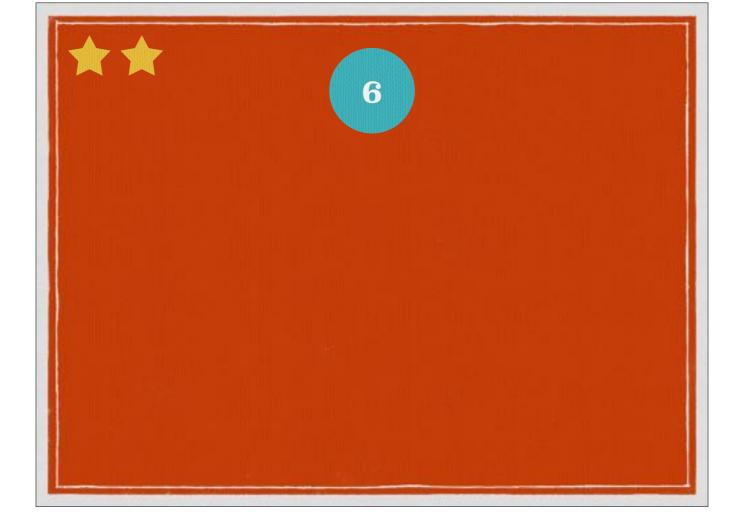**What are `data-` attributes and how can you use them?**

5

What are `data-` attributes and how can you use them?

Attributes which can be named however you like, and whose values are placed on that DOM node's `dataset` property. E.g.:

```html
<p id="sample" data-leet="1337" data-power-level="9001">Hi</p>

var ptag = document.querySelector('#sample');

ptag.dataset.leet; // 1337
ptag.dataset.powerLevel; // 9001 (note the case change!)
```

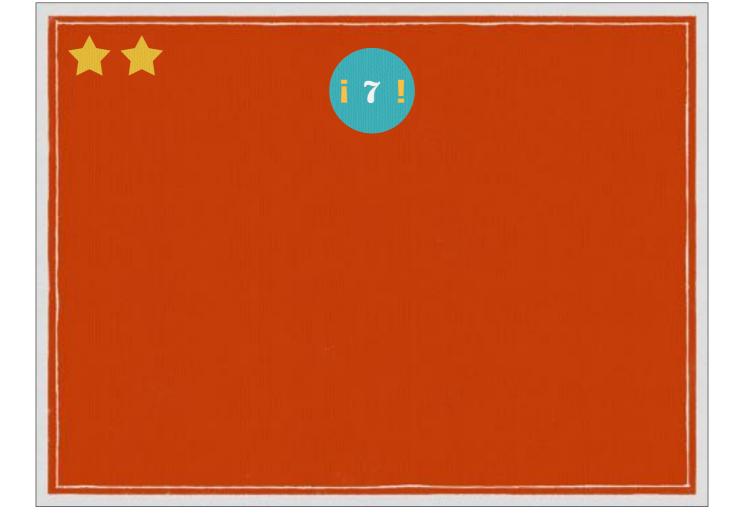**6**

What are web components?

6

What are web components?

A collection of browser technologies including *custom elements*, *shadow DOM*, *HTML templates & imports*. Web components enable reusable, modular, dynamic HTML right in the browser.

¡7!
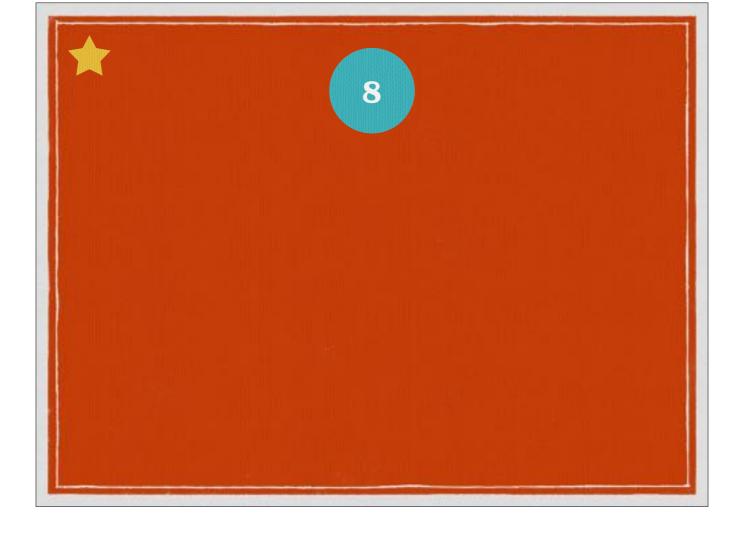
¡ 7 !

Contrast shadow DOM with virtual DOM.

¡ 7 !

Contrast shadow DOM with virtual DOM.

Virtual DOM is a React JS representation used for diffing & generating DOM changes. Shadow DOM is a browser feature that hides implementation inside a simple HTML tag and prevents styles etc. from "leaking" across the boundary.
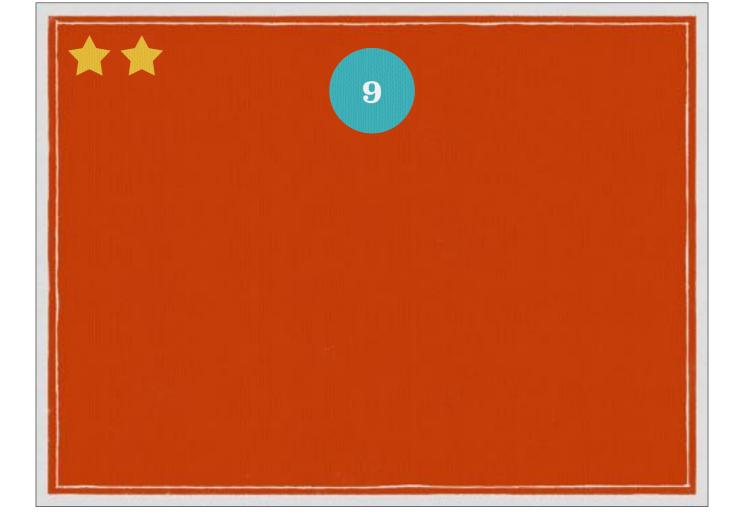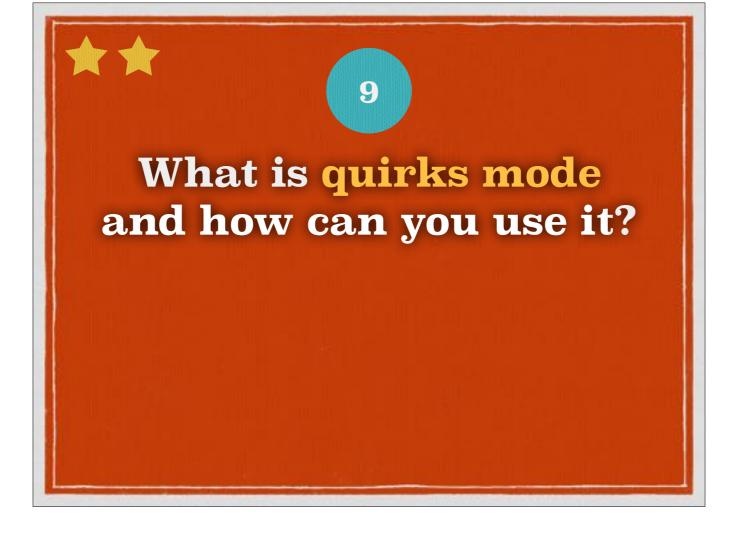
8

8

Name as many native ways to **query the DOM** as you can.

getElementById to get a element that has the provided Id.
getElementsByClassName to get a nodelist by providing a class name.
getElementsByTagName to get a nodelist by the provided tag name.
querySelector css style selector will return the first matched element.
querySelectorAll will return a non-live nodelist using depth-first r.
getElementsByName returns the list of elements by tag.
getElementsByTagNameNS returns elements within the provided namespace.

What is quirks mode and how can you use it?

9

What is quirks mode and how can you use it?

A way to make browsers render CSS & HTML according to old, pre-standards behavior (so as not to break old websites). It can be opted into by setting the page's doctype to certain types.
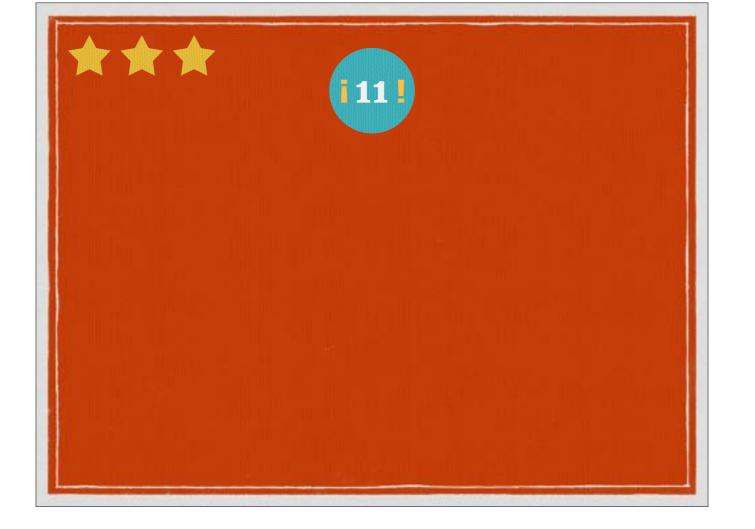
10

Name similiarities and differences of localStorage & sessionStorage.

★ ★ ★

10

Name similiarities and differences of localStorage & sessionStorage.

Both are 5MB+ browser-provided "DOM storage objects" available on `window`. They have identical method names (e.g. `getItem()`, `setItem()`, `clear()`) and can be cleared/edited by the user. `sessionStorage` persists across refresh / returning to the page, but *not* across tabs / closing the browser. `localStorage` persists across browser/tab close.

★ ★ ★

¡ 11 !

How do the DOM storage objects differ from cookies?

★ ★ ★

¡ **11** !

How do the DOM storage objects differ from cookies?

Cookies are tiny (4kb) and can only store strings (DOM storage can store other primitives). Cookies are embedded in every single HTTP request. Cookies can have an HTTP-only flag preventing JS from accessing them, making them usable for auth tokens.
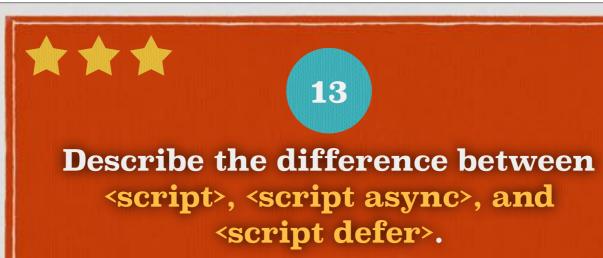
12

What is the difference between Long Polling, Websockets and Server-Sent Events?

12

What is the difference between Long Polling, Websockets and Server-Sent Events?

Long polling: HTTP request with a huge timeout; server does not send response until new data. Websockets: two-way protocol, tiny messages, client & server can send and react to events. SSE: client establishes open connection to server; only server can send data (client loses ability to send HTTP req.s)
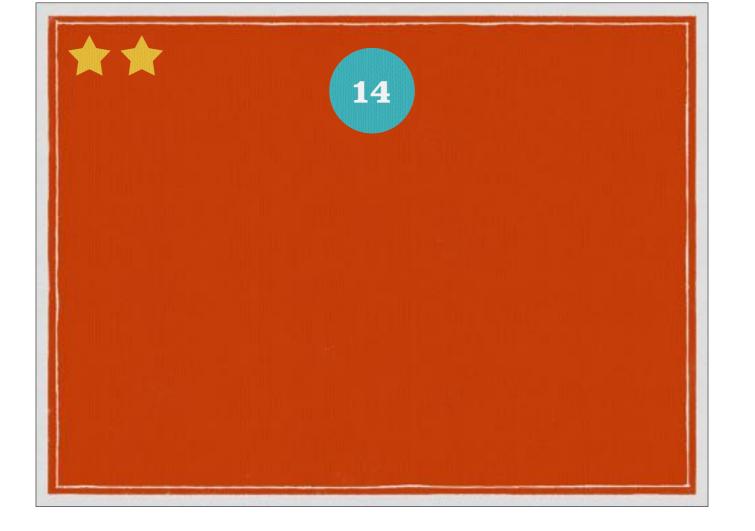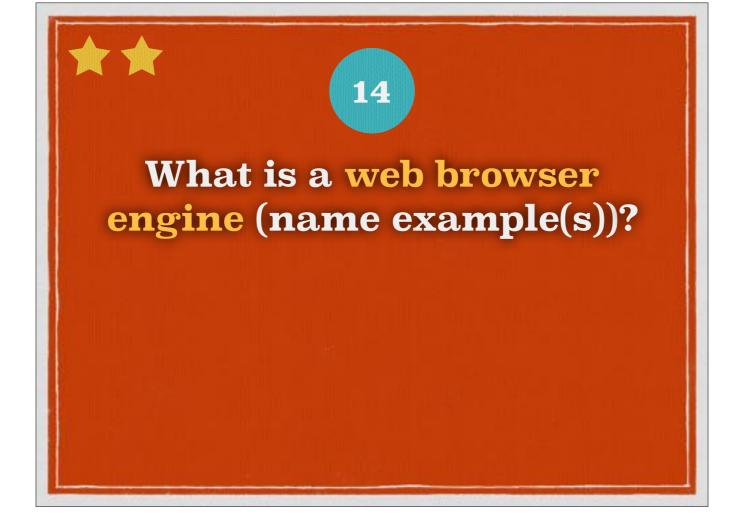
13

Describe the difference between
<script>, <script async>, and
<script defer>.

★ ★ ★

13

Describe the difference between <script>, <script async>, and <script defer>.

The first pauses the HTML parser until the script is downloaded and run. The next pauses the HTML parser only when running the script. The last waits until the HTML parser is complete and then runs the script.
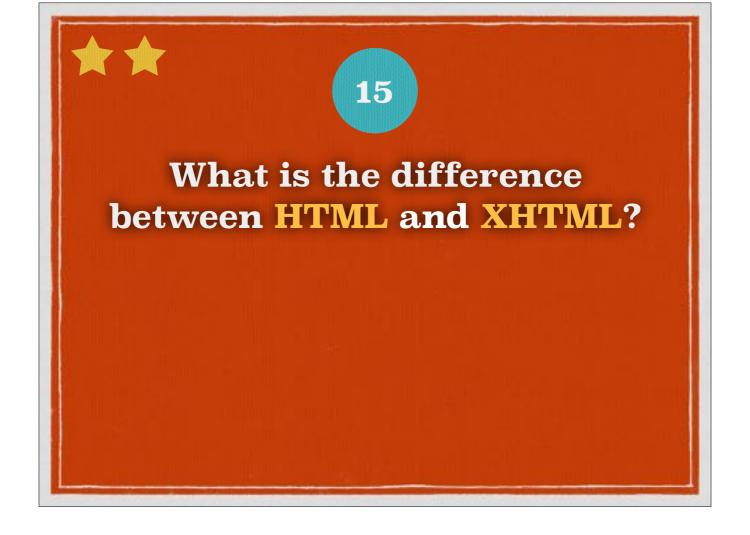
14

14

What is a **web browser engine** (name example(s))?

14

What is a web browser engine (name example(s))?

AKA layout engine or rendering engine, responsible for transforming the DOM into visible web pages. Examples: WebKit (Safari), Blink (Chrome/Opera), Gecko (FF), Trident (IE).

15

15

What is the difference between HTML and XHTML?

15

What is the difference between HTML and XHTML?

ExtensibleHTML is a stricter specification than HTML.

- All elements must have a start tag.
- Non-void elements with a start tag must have an end tag (`p` and `li`, for example).
- Any element may be "self-closed" using `/>`.
- Tags and attributes are case sensitive, typically lowercase.
- Attribute values must be enclosed in quotes.
- Empty attributes are forbidden (`checked` must instead be `checked="checked"` or `checked="true"`).
- Special characters must be escaped using character entities.

16

What is the DOM?

⭐⭐⭐⭐⭐

HTML, XML, SVG
A tree representation
Nodes (document, element, attribute, text etc.) and relationships (structure)
Built from the original HTML
What gets rendered
An API for querying (find) & manipulation (methods)
API for event registration