

# **Top Web Developer Interview Questions and Answers**

Appearing for interviews can be intimidating and if you are underprepared, you can be overwhelmed and lose confidence in front of the interviewer. If you want to be successful in a web developer interview, you need to prepare for the commonly-asked questions. This article will provide some of the frequently-asked web developer questions & answers.

According to the <u>U.S. Bureau of Labor Statistics</u>, the employment of web developers is projected to grow 8% from 2019 to 2029, much faster than the average for all occupations. Demand will be driven by the growing popularity of mobile devices and e-commerce.

Web development is an important job profile in the age of the internet and there are many big organizations that look to hire the best professionals. As a web developer, you should have a good understanding and proficiency in all the popular web technologies like HTML5, CSS3 and JavaScript.

There are various professional online courses in web development to gain those skills. Apart from that, one should also show good interpersonal and communication skills to stand out from the rest of the candidates.

The following top 45 web developer interview questions & answers will cover all the important areas:

# **Top Web Developer Interview Questions & Answers**

# Q1. What is a pseudo-class?

**Ans.** It is a CSS technique that sets the style when an element changes its state. E.g. style changes when mouse hover, different styles for visited or unvisited links, etc.

# Q2. What is Namespacing in JavaScript?

**Ans.** It is usually not a good practice to use global variables in programming languages including JavaScript. However, you may have to use global variables sometimes. So, JavaScript introduces the concept of namespacing which ties down a part of the code and registers it with a unique name.



# Q3. How can you reduce page loading time?

**Ans.** These are the following ways you can reduce web page loading time: reduce the image size, remove unnecessary widgets, HTTP compression, placing CSS at the top and script referencing at the bottom or external files, reduce lookups, minimize redirects and caching.

#### Q4. What is CORS?

**Ans.** Cross-Origin Resource Sharing (CORS) is a mechanism that enables different resources on a web page to be requested from another domain outside the domain from which the request originated.

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# Q5. What are the advantages of HTTP 2.0 over HTTP 1.1?

**Ans.** The major advantages are: headers compression, push notification, intelligent packet streaming management and parallel loading of page elements over a single TCP connection.

Q6. How do you take into account SEO, maintainability, UX, performance, and security when you're building a web application?

**Ans.** Explain how you prioritize your actions as per the requirements of the organization. If your organization handles vital data, then security will be your top priority. If it is a medium-sized online business, SEO and UX might be your top priority and so on.

#### Q7. What are the new form elements introduced in HTML5?

**Ans.** The new form elements introduced in HTML5 are:

- <datalist> specifies a list of options for input controls.
- <keygen> generates an encryption key.
- <output> defines the result of an expression.

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Q8. What's the best way to integrate 5 different stylesheets into a website?



**Ans.** It usually depends on how the site is laid out. However, in most cases combining the stylesheets into a single one is the best approach. You can use Gulp to do so.

#### Q9. What's the difference between Canvas and SVG?

**Ans.** Canvas is an HTML5 element which can draw graphics on the fly with the help of JavaScript. SVG (Scalable Vector Graphics) is used to display vector-based graphics on the web.

# Q10. What is the default border size of a Canvas?

**Ans.** There is no default border size of a Canvas. You can adjust using CSS.

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#### Q11. What is the difference between ID and Class selector?

**Ans.** ID selector finds and modifies the style to any single element while Class selector can do to any number of elements.

#### Q12. What is your preferred development environment?

**Ans.** This question is not about checking if you are perfect for the same environment as the organization works but to measure if you are flexible to work in any environment. So, give them a hint that you are able to adapt to any environment with the core skills that you have.

# Q13. Which are the new APIs provided by HTML5?

**Ans.** The new APIs are media API, text track API, application cache API, data transfer API, user interaction API, command API, constraint validation API and history API.

# Q14. What are your key responsibilities in your current organization?

**Ans.** Are you working in specific development areas? Do you only support the maintenance and upkeep of a website? Or are you involved in all major steps in development including fixing bugs? Do not leave out any responsibilities which you think can help in leveraging your candidacy for the role.



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#### Q15. What is the difference between null value and undefined value?

**Ans.** Undefined means a variable has been declared but has not yet been assigned a value. On the other hand, null is an assignment value.

# Q16. What are the web technologies that you are proficient in?

**Ans.** As already mentioned, you must have expert skills in three technologies: HTML5, CSS3 and JavaScript. Apart from that, you should be able to have at least some working knowledge of some of the other technologies like popular frameworks, APIs and database management.

# Q17. What are the different types of pop-up boxes available in JavaScript? Explain them.

**Ans.** There are three types of pop-up boxes:

- 1. Alert it just displays a message with an OK button.
- 2. Confirm it pops up a confirmation message window with OK and Cancel button.
- 3. Prompt it pops up a dialog box asking the user input followed confirmation buttons.

# Q18. What is Scope in JavaScript? Name the different types of Scopes.

**Ans.** The scope defines the accessibility of the functions and variables in an application. There are two types of scopes: local and global.

# Q19. What is the difference between '==' and '===' operators?

**Ans.** Though both of them belongs to the comparison operator category, the '==' operator checks the value whereas, the '===' operator checks both the value and the type.

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# Q20. By which mechanism in JavaScript can you detect the operating system on a client machine?



**Ans.** The operating system on a client system can be known by using the JavaScript property navigator.appVersion.

The above web developer interview questions and answers will help you to get an understanding of the type of questions you can expect in such interviews. However, if you need to gain expert-level skills to clear the technical round of interviews in any organization, you should enroll in a certification course. Naukri Learning offers you a variety of online web development courses which you can enroll in and get certified to improve your chances of clearing an interview and getting a career boost.

# Q21. Which one do you use the most, CSS Animations or JavaScript Animations?

**Ans.** Both. CSS animation and JavaScript animation are the two primary ways of creating web animations. As per the project requirement and the kind of the desired effect, I have used both of them.

#### Cases when CSS animations work well:

- When the transitions are simple. For example, toggling within the element states.
- When the UI elements are self-contained. Like in showing a tooltip.

# Cases when JavaScript animations work well:

- When advanced animation effects are expected in the project, like bouncing, stop pause, etc.
- When a superior level of control is required, JS animation works well.
- Helpful when drawing in HTML canvas.

#### Q22. Have you used Git for pushing live changes on the website?

**Ans.** Yes, Git is a great help to streamline live updates on the website. For this, I made use of a post-receive hook. Through this, I was able to copy updates from remote server repo and update it onto the live site.

#### Q23. Which web development tools do you use?

**Ans.** There are several web development tools available and being into the role of a web developer, I have used multiple of them like:



- GitHub to work together with a team on a particular project.
- CodeKit to minify, combine, and syntax-check in JavaScript.
- JS to structure the web application and even develop a one-page application.
- CodePen to deploy a website and build test cases.
- Grunt for automating repetitive tasks.

# Q24. As a web developer, how do you optimize your site's loading time?

**Ans.** As a developer, I will optimize the site by –

- Implementing caching
- Minifying CSS, HTML, and JavaScript codes

# Q25. How is HTML different from XHTML?

**Ans.** HTML and XHTML are both known for writing web pages. But, HTML is extended from SGML tagging whereas XHTML is an application of Extensible Markup Language (XML).

HTML has three components – element tag pair (start tag and end tag), attributes of the element within the tag, and content in the form of both text and graphics. Whereas XHTML includes only a single root element which includes lower case elements and the value that is assigned should be closed, nested, and must be surrounded by quotation marks. Looking at the difference, XHTML is more expressive when compared to HTML.

# Q26. Have you gone through our website? Please mention what you didn't like about the site?

**Ans.** Now, this is a tricky question and here the interviewer is checking your skills to identify what is good as per you and as a developer how in-depth knowledge do you have about the site's functionality. So, the first thing is that you must visit their website before appearing for the interview as this will show your interviewer that you are serious about the role and at the same time you are well-prepared.

Next, you need to do is observe some good points about the site from a developer's point of view and also make a checklist of pitfalls. Note, please mention only genuine points where your expertise can be of help.

Q27. How do you handle a client who is unhappy with your team's web delivery?



**Ans.** For every company, the client is the king and no one wants to lose his or her clients at any cost. Therefore, when appearing for a web developer interview round, you must be well prepared as the recruiter can shoot this question.

You can start by narrating any previous incident that is related to client handling. Define the issues the client was facing, and later narrate the solutions, which you or your team had performed to help the client. This will let the recruiter know that you have the capability to handle and nurture clients.

# Q28. What do you know about HTTP/3?

**Ans.** HTTP/3 is the new third-generation HTTP standard that was recently made available in late 2019. It is known for its new standards, fast, reliable, and secure connection. HTTP/3 promises faster web experience as it uses QUIC. This new internet transport protocol introduces first-class citizens. Brands like Google and Facebook are now using QUIC because of its swift abilities to speed up the web.

# Q29. What will you do when an image or a hyperlink is not displaying correctly?

**Ans.** Many times it happens that some images are not properly displayed on the page and that severely affects the SEO and if happens multiple times, it hampers the overall rankings. So, I keep on checking things like missing href and alt tags.

# Q30. Do you have any experience in developing multilingual websites?

**Ans.** It is not necessary that you hold experience in developing multilingual sites but you must know the basics of how it is done. You can tell the recruiter the process that involves Unicode encoding and usage of the 'lang' attribute.

# Q31: What are the different HTTP request types supported in Restful Web Services? Can you explain the purpose of each?

**Ans.** Restful web services supported HTTP request types are GET, POST, PUT, and DELETE.

The purpose of each of the HTTP request types in Restful web service is:

1. GET



Also known as the idempotent method, GET retrieves data from the server.

#### 2. POST

POST is used for creating a new entity i.e. a resource without an ID. On the creation of a request, the ID of the newly created entity is returned as part of the response to this HTTP request. It is often used while uploading a file or submitting a completed web form.

#### 3. PUT

It is used to update an existing entity.

#### 4. DELETE

It is used for removing the resource from the server.

# Q32. What is Type Coercion in JavaScript?

Ans. Type coercion refers to the conversion of a value from one type to another (e.g Number to String, String to Number, or Boolean to Number) with similar content. In case the behavior of the implicit conversion is not sure, then the constructors of a data type can be used to convert any value to that datatype.

# Q33. What is an ETag and how does it work?

An entity tag or an ETag is an HTTP header that is used for web cache validation and conditional requests from browsers for resources. It is allocated by a web server to a specific version of a resource found at a URL. When the server reads the ETag from the client request, the server can then tell whether to send the file or tell the client just to use their local copy.

# Q34. What is npm? [Node.js]

Ans. npm stands for Node Package Manager. It is a package manager for the JavaScript. npm puts modules in place so that node can find them. npm also manages dependency conflicts. It is used to publish, discover, install, and develop node programs.

# Q35. What is Webpack?



Ans. Webpack is a static module bundler for JavaScript. It is a build tool that is used is to bundle JavaScript files for usage in a browser. It puts the bundles of assets, such as codes, images, fonts, and files in a dependency graph, and enables you to use require() in your source code to point to local files, like images, and decide how they're processed in the final Javascript bundle.

While a webpack may slow you down at the beginning, it can give you great speed benefits when used correctly.

# Q36. What is DOM (Document Object Model)? [CSS]

Ans. The Document Object Model (DOM) is a cross-platform programming interface that represents HTML and XML documents as nodes and objects. In simple terms, it defines the logical structure of documents and the way the documents are accessed and manipulated. DOM enables programmers to create, modify, and delete the document structure, style, and content.

When a document is displayed on a browser, the content of the document must be combined with its style information. The browser converts HTML and CSS into the DOM. The DOM combines the document's content with its style.

# Q37. What is Cross-site Scripting (XSS)?

Ans. Cross-site scripting (XSS) is a security exploit that enables an attacker to introduce malicious client-side code into a website. When the untrusted links are unintentionally clicked by the victims, the cookies information is passed to the attackers so that they can bypass access controls.

# Q38. What is the difference between responsive design and adaptive design?

Ans. The responsive design follows the principle of flexibility. It adapts to the size of the screen and offers the optimal viewing experience of a website regardless of what type of device is used to see it. Responsive websites use CSS media queries and flexible grids to change styles based on different factors related to the device, such as display type, width, and height.

Adaptive design uses static designs instead of flexible layouts. Its design is based on breakpoints that do not respond once they are initially loaded. It detects the type of device used and its other features, then provides the feature and layout based on a predefined set of characteristics.



Similarity: Both responsive and adaptive designs optimize the user experience across different target devices. Both adjust for different viewport sizes, resolutions, and control mechanisms.

# Q39: What is progressive rendering in HTML?

Ans. Progressive Rendering or Progressive Server Side Rendering is a technique with which you can sequentially update small parts of the entire webpage and stream it to the client in parts without waiting for the whole page to be rendered.

It means that when you start rendering the critical content on the server, you can stream it to the client without waiting for non-critical content to be rendered. It bridges the benefits of both CSR (Client Side Rendering) and SSR (Server Side Rendering).

# Q40. Explain the functional and non-functional requirements?

Ans. Functional requirements define the specific functionality of the system, It describes what the system does or must not do.

Non-functional requirements, on the other hand, define how the system should do it. It specifies a system's type, in terms of accessibility, reliability, capacity, usability, maintainability, and security. Non-functional requirements describe system behavior, features, and general characteristics that affect the user experience.

Non-functional requirements do not affect the basic functionality of the system. The system will continue to perform its basic purpose, even if the non-functional requirements are not met.

# Q41. What is the difference between span and div tag in HTML5?

Ans. The following are the differences between <Div> tag and <Span> tag.

<div> tag</div>	<span> tag</span>
It is a block-level element.	The <span> tag is an inline element.</span>



It is usually used/attached to wrap a section that you want to highlight on the webpage.	This tag is typically used to wrap any specific word (a small section of a line) that you want to highlight on the webpage.
This tag accepts the align attribute.	<span> tag does not accept the align attribute.</span>

#### Q42. What are CSS selectors? Name some.

CSS selectors are a part of a CSS ruleset. With CSS selectors, you can "find" HTML elements you want to style. They select HTML elements according to its id, class, type, attribute, etc.

There are several different types of selectors in CSS.

- Element Selector
- Id Selector
- Class Selector
- Universal Selector
- Attribute selectors
- Pseudo-Classes
- Pseudo-Elements
- Combinator

# Q43. Explain quirks, full standards, and almost standards mode.

Ans. Quirks, full standards, and almost standards mode are the three modes for layout engines in web browsers.

In quirks mode, the layout emulates nonstandard behavior in Navigator 4, Internet Explorer 5. This is typically used for the websites that were built before the introduction of web standards.

In full standards mode, the behavior is described by the HTML and CSS specifications. Most of the modern browsers use this mode.

In almost standards mode, there is only a small number of quirks implementation.

# Q44. What is HTML5 Web Storage?



Ans. HTML5 web storage enables your web applications to store data locally within the user's browser. The data is stored in name/value pairs, and a web page can only access data stored by itself.

In simple terms, web storage allows large amounts of application data to be stored locally. It does not affect the performance of your web application.

There are two types of web storage to store data locally:

- Local storage: This stores data with no expiration date. The data once stored in the local storage will be present even when the user's browser is closed and reopened.
- Session storage: It stores data for one session only. The data will be deleted from the browser once the user's browser is closed and the session would be lost.

# Q45. What is the difference between ES5 and ES6?

Ans. ES5 is an abbreviation of ECMAScript 5 while ES6 is an abbreviation of ECMAScript 6. ECMA is a trademarked scripting language specification defined by ECMA International. The difference between ES5 and ES6 are:

ES5	ES6
It is the fifth edition of the ECMAScript.	ES6 is the sixth edition of the ECMAScript.
ES5 was introduced in 2009.	ES6 was introduced in 2015.
It supports primitive data types – string, number, boolean, null, and undefined.	In ES6, there are some additions to JavaScript data types, such as a new primitive data type 'symbol' for supporting unique values.
In ES5, you can define the variables only by using the var keyword.	In ES6, you can define variables in two ways- let and const.



Both function and return keywords define a function.	An arrow function is a new feature of ES6 due to which you won't require the function keyword to define the function.
It has a lower performance than ES6.	It has some new features compared to ES5. Thus, it has a higher performance than ES5.

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