Full Stack Developer Interview Questions and Answers

Introduction

The demand for full-stack developers is increasing every day in the job market. Companies are hiring full-stack developers who are skilled in trending technologies. Utilize our resource, which contains frequently asked full-stack interview questions and answers, and prepare confidently for the jobs at top companies. Explore our full-stack developer course syllabus to get started.

List of Full Stack Developer Interview Questions for Freshers

1. Explain Full-Stack development.
2. What development languages are nowadays used for server-side coding?
3. What is a RESTful API?
4. Explain the difference between resetting and normalizing CSS.
5. What is the difference between a full-stack developer and a software engineer?
6. What programming languages should a full-stack developer know?

7. What is CORS?
8. What is the most important quality needed for a full-stack developer?
9. How do you optimize the website?
10. What is Git?
11. Explain semantic HTML.
12. List some full-stack developer tools.

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Full Stack Developer Interview Questions and Answers for Freshers

1. Explain Full-Stack development.

The full-stack developers are well-versed and look at it from every angle. In “Full Stack Development,” the developer ensures that both the client-side and server-side requirements are taken care of. These versatile developers can handle projects that need databases, APIs, etc.

2. What development languages are nowadays used for server-side coding?

There are several languages involved in server-side coding. Examples of them are Python, PHP, JavaScript, C#, etc.

3. What is a RESTful API?

RESTful API, also termed REST API, is an API (Application Programming Interface) that adheres to the limitations of the REST architectural style and paves the way for communication with RESTful web services. REST refers to Representational State Transfer.

4. Explain the difference between resetting and normalizing CSS.

Resetting involves eliminating all styling from every element. Normalizing involves providing a way for elements to contribute consistently across browsers.

5. What is the difference between a full-stack developer and a software engineer?

- A full-stack developer deals with both the front end and back end of a website. They also handle databases, APIs, and servers as and when needed.
- A software engineer is a technology expert who has immense proficiency in programming languages and software development principles.

6. What programming languages should a full-stack developer know?

Full-stack developers should be well-versed in HTML, CSS, JavaScript, and a couple of backend languages like NodeJS, Express.js, etc.

7. What is CORS?

Cross-origin resource sharing (CORS) is a technique that lets restricted resources on a web page be requested from a different domain outside the domain from which the initial resource was served.

8. What is the most important quality needed for a full-stack developer?

A full-stack developer should have the willpower to continue, a curious mindset, enthusiasm for problem-solving, and the ability to find opportunities in every challenge.

9. How do you optimize the website?

Some of the best ways to optimize the website are making it mobile-first, using precise, elaborate titles for your pages, keeping your site up to date, performing

exhaustive keyword research, writing long-form and value-filled content, optimizing for both on-page and off-page SEO, etc.

10. What is Git?

Being an open-source distributed version control system, Git lets you store code, follow up on revision history, and go back to previous code versions whenever needed.

11. Explain semantic HTML.

Semantic HTML adds meaning to the web page. It is also called semantic markup. You don't just define the look of the webpage with semantic HTML.

12. List some full-stack developer tools.

Backbone, Visual Studio Code, TypeScript, GitHub, etc., are some of the full-stack developer tools.

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List of Full Stack Developer Interview Questions for Experienced

1. What are the responsibilities of a full-stack developer?
2. Explain front-end web development and back-end development.
3. What is MVC? Should a full-stack developer know MVC?
4. Explain Node.js and Express.js.
5. How do you decrease the load time of a website?
6. Explain what ACID refers to in the database system.
7. What is an inversion of control?
8. Explain the difference between a thread and a process.
9. Explain the difference between REST and GraphQL.
10. What is a LAMP stack?
11. Explain the MERN stack and the MEAN stack.
12. What is bootstrapping in full-stack development?
13. What is an application architecture?
14. Explain the difference between null and undefined in JavaScript.

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Full Stack Developer Technical Interview Questions and Answers for Experienced

1. What are the responsibilities of a full-stack developer?

Full-stack developers should be proficient enough to have a say whenever their help is needed in a process. Some of the responsibilities of a full-stack developer are:

- Taking full responsibility for the software development process from beginning to execution.
- Testing software to maintain it in the best condition.
- Coding effectively for the front end and back end of the software.
- Taking care of the application's responsiveness.
- Satisfying both technical and end-user requirements.
- Keeping abreast of new technologies and communicating them to the relevant team.
- Designing and building APIs.
- Be updated with job expertise by learning new development tools.
- Make sure that there is cross-platform optimization for mobile.
- Paying attention to scalability.

2. Explain front-end web development and back-end development.

Front-end web development is also called client-side web development. This involves what the users view from their end.

- While the back-end developers develop code, the front-end developers turn it into a graphical interface.
- The key is that the data should be in a readable manner. The front-end developer makes sure that website visitors can interact with the page conveniently.

What takes place behind the scenes of the web development process is called the back end.

- Backend developers primarily concentrate on how the website functions. They develop code that pays attention to the workings and reasoning that are the driving force of the application.
- Backend development can include database migration and API integrations.

3. What is MVC? Should a full-stack developer know MVC?

MVC is the short form of model-view-controller.

- The model is the layer that maintains the data for the application.
- View, as the name implies, is the layer that shows the application.
- The controller is the brain of the application that deals with logic.

A Full-Stack developer should have good knowledge of MVCs.

4. Explain Node.js and Express.js.

- Node.js is an open-source, cross-platform JavaScript runtime environment that lets developers develop JavaScript programs for the server side.
- Express.js is one of the renowned Node.js web frameworks. It is the core library for several other popular Node.js web frameworks.

Google Chrome supports the V8 engine, which powers it. One can develop various types of applications with Node.js, including command-line applications, web applications, etc.

5. How do you decrease the load time of a website?

Frequently, you need to govern how your website is loading and identify the reason for slow loading. The ways to reduce the website's loading time are:

- Select a hosting solution that focuses on performance.
- Reduce your images' file sizes and optimize them.
- Decrease your redirects.
- Do web page caching.
- Use browser caching.
- Decrease HTTP requests.

6. Explain what ACID refers to in the database system.

In the context of database systems, ACID means atomicity, consistency, isolation, and durability.

ACID generally deals with how a database recovers from an instance of failure that might take place while processing a transaction.

7. What is an inversion of control?

Being a design principle, inversion of control (IoC), as the name implies, inverts the flow of control from conventional control flow.

The classes under this principle are loosely coupled. This leads to their hassle-free testing.

8. Explain the difference between a thread and a process.

- Threads and processes are standalone sequences of execution. While the thread loads in a shared memory space, a process loads in a separate memory space.
- While a process uses more resources, a thread uses only a few resources. For the process, the time taken for the building is more, whereas in the thread, the time is less.
- A process may consist of varied threads apart from the primary thread.

9. Explain the difference between REST and GraphQL.

REST has been a renowned method for designing APIs. However, with the advent of GraphQL, it is facing a major challenge.

Though both REFST and GraphQL satisfy the same function, which is data passing through internet protocols, they differ in that, while GraphQL is a query language, REST is essentially an architectural pattern.

10. What is a LAMP stack?

- LAMP refers to Linux, Apache, MySQL, and PHP/Perl/Python. They are together a demonstrated set of software for delivering excellent web applications.
- It is a renowned open-source stack. Each component of the solution stack denotes a crucial layer of the stack.
- It is one of the oldest and most widely deployed software development methods.
- With the LAMP stack, one can develop dynamic websites and web applications.

11. Explain the MERN stack and the MEAN stack.

- MERN refers to MongoDB, Express.js, React, and Node.js. The four technologies are open-source. One can develop dynamic websites and web applications with this software stack. JavaScript is the common language for all four technologies in the MERN stack.
- Being an open-source web stack, MEAN stands for MongoDB, Express.js, AngularJS, and Node.js. The client-side and server-side are essentially dependent on JavaScript. One can develop quick, robust, and dynamic websites and web applications with the MEAN stack.

12. What is bootstrapping in full-stack development?

Bootstrap is a web app development toolkit. You don’t need to develop lots of CSS code when Bootstrap is available. You don’t need to spend a lot of time coding your grid, and it has responsive images.

13. What is an application architecture?

- An application architecture elucidates the patterns applied for framing and building an application.
- A well-defined application architecture will give you the benefit of app scaling as the business demands.

13. Explain the difference between null and undefined in JavaScript.

Null and undefined are two special types of values. While undefined implies a variable has been declared but has not yet been assigned a value, null can be assigned to a variable as a portrayal of no value. It must be noted that JavaScript does not set a value to null.

Conclusion

Acing a Full Stack Developer interview needs you to showcase an advanced level of proficiency in both front-end interactivity and back-end scalability. Hiring managers want to see engineers who can effortlessly switch between React/Angular components and scalable Node.js/Python APIs, all while ensuring optimized SQL/NoSQL databases. Your skills in explaining the subtleties of System Design, RESTful APIs, and CI/CD pipelines will demonstrate your worth in designing complete solutions. With the growing trend of Cloud-Native systems, your skills in Docker and Kubernetes will make you stand out as an advanced-level architect who can deliver production-grade applications.
Are you ready to emerge as a well-rounded leader in the industry? Learn the entire development process with our Full Stack Development Masterclass in our software training institute in Chennai.