Okay, I've carefully reviewed the job description and Walid Al Hasan's resume. Based on this information, here are 12 targeted and advanced technical questions tailored to assess his skills and experience, focusing on Full-Stack Development, his mentioned projects, and aligning with potential expectations for a Software Engineer role:

\*\*General Full-Stack & Foundational Questions:\*\*

1. \*\*Based on your experience with both front-end and back-end technologies, describe a situation where you had to make a trade-off between front-end performance and back-end complexity. What factors did you consider, and what was the ultimate decision?\*\* (This assesses understanding of the full-stack impact of architectural decisions.)

2. \*\*Your resume mentions you are self-taught. Describe your self-learning process. What resources do you typically use, and how do you ensure you're staying up-to-date with the latest trends and best practices in software development?\*\* (Checks for commitment to continuous learning.)

\*\*Project-Specific Questions:\*\*

3. \*\*MyBlog (Vue, PHP, Laravel, MySQL):\*\*

\* \*\*Explain your choice of Vue.js for the front-end of MyBlog. What were the specific advantages of using Vue in this context, and did you consider any other front-end frameworks? If so, why you selected vue instead of others.\*\*

\* \*\*How did you handle user authentication and authorization in MyBlog? Describe the security measures you implemented to protect user data and prevent unauthorized access.\*\* (Focuses on security best practices in a full-stack application.)

\* \*\*How did you approach database schema design for MyBlog, considering the types of data you wanted to store (e.g., posts, comments, users)?\*\*

4. \*\*Course Prospectus Viewer (Java, JavaFX, SQLite):\*\*

\* \*\*What were the challenges of using SQLite for the Course Prospectus Viewer, and how did you address them? Did you consider other database options, and if so, why did you choose SQLite?\*\* (Probes understanding of database choices and limitations.)

\* \*\*Explain your approach to data binding and UI updates in JavaFX for the Course Prospectus Viewer. How did you ensure that the UI remained responsive, even with large datasets?\*\*

5. \*\*Restaurant Menu API (C#, ASP.NET Core API):\*\*

\* \*\*Describe the API design principles you followed when developing the Restaurant Menu API. How did you ensure that the API was RESTful and easy to use for other developers?\*\*

\* \*\*What strategies did you use to optimize the performance of the Restaurant Menu API, especially when handling a large number of requests or complex data queries?\*\* (Explores performance optimization techniques.)

6. \*\*Misc Converter (Java, JavaFX):\*\*

\* \*\*How did you ensure the accuracy and reliability of the different conversion and calculation functions within the Misc Converter application? What testing methods did you employ?\*\*

\*\*Skill-Based Questions:\*\*

7. \*\*You listed Blazor as a front-end skill. Describe a situation where you would choose Blazor over other front-end frameworks like React or Vue. What are the key advantages and disadvantages of using Blazor?\*\* (Tests in-depth understanding of Blazor.)

8. \*\*You have experience with both MySQL and SQL Server. Compare and contrast these two database systems in terms of scalability, performance, and features. In what scenarios would you recommend one over the other?\*\*

9. \*\*With your backend experiences in both PHP/Laravel and ASP.NET Core, what do you think that what makes them different? What are the main difference you found in those two framework\*\*

\*\*Advanced/Scenario-Based Questions:\*\*

10. \*\*Imagine you're building a real-time chat application. Which technologies from your skill set would you choose for the front-end, back-end, and database, and why? Describe the architecture of your solution, including how you would handle scalability and reliability.\*\* (Tests architectural thinking and technology selection.)

11. \*\*Describe your approach to writing unit tests and integration tests for a complex software project. How do you ensure that your tests are effective in identifying bugs and preventing regressions?\*\*

12. \*\*How do you approach debugging and troubleshooting complex issues in a full-stack application? Describe a challenging debugging experience you've had and the steps you took to resolve the problem.\*\*

These questions are designed to go beyond basic knowledge and assess Walid Al Hasan's ability to apply his skills to real-world scenarios, his understanding of trade-offs, and his problem-solving abilities. They also delve into his passion for continuous learning and his commitment to building robust and scalable software solutions.