Nagarro - Oct 2024

About Yourself

1. Could you please tell me something about yourself?

Project and Module Specifics

2. What is the backend of your project - Walmart?

3. What is the eCommerce stack of Walmart - Hybris?

4. Talk about your module of Walmart.

5. Suppose you have both mobile and web applications. You are on the cart page, and from the website, you added one more item. When you click on checkout from the mobile cart, what will happen? Will your mobile cart update?

Objective-C and Swift Concepts

6. How much experience do you have in Objective-C?

7. How do you compare two struct objects?

8. What is the Hashable protocol? What is the difference between Hashable, Equatable, and Identifiable?

9. Have you used Diffable Data Sources? How is Hashable used in Diffable Data Sources?

10. What is the difference between copy and retain?

11. What is toll-free bridging in iOS?

12. How do you use C language code in Swift?

Architecture Patterns

13. What types of architecture patterns do you know?

14. Can you explain MVVM and VIPER?

15. How do you create MVVM in iOS?

16. How do you pass data between views in MVVM?

Core Data

17. Can you please explain the working of Core Data (technical details, not theoretical)?

18. How many persistent coordinators do you need, and how does the model work?

19. How do you create a context in Core Data?

20. Can you comment on migration in Core Data?

21. What are mappings in Core Data migration?

22. How do you perform heavyweight migration in Core Data?

Concurrency and Multithreading

23. What is the difference between Assert and Pre-Conditions?

24. When we define a serial queue, it has a quality of service. What are the different values of that?

25. In a class, I have a private dictionary with two functions: one to read and one to write a value in the dictionary. I want to make the function thread-safe. How can I do it? Out of the answers, which one is the best?

26. If I talk about modern concurrency, I have two async functions that call two APIs. How do I run those two APIs in parallel and show the result when both return their values?

27. If I have existing code that calls an API with a closure, how can I use it with async/await?

28. What are higher-order functions in Swift?

29. What are the different ways to do multithreading in iOS?

Testing and Debugging

30. How do you test a closure function?

31. What is code coverage?

32. In a large application with many closures, notifications, and queues, how do you debug the application?

33. If there are notifications for updating data, and the UI is not updated, what will you check?

UI Development and SwiftUI

34. If you have to create a settings screen like the iPhone's settings screen, how much time will it take?

35. Can you provide a breakdown of the development process, including the UIView, ViewModel, and test cases?

36. What are size classes?

37. Have you worked with the geometry of SwiftUI?

38. How does navigation work in SwiftUI?

39. Have you worked with Combine?

40. How does the view model send data to the view?

Security

41. How do you maintain data security in a mobile app?

42. Where will you apply encryption in a mobile app?

43. When the data is in the app, how will you secure it?

44. Apart from encryption, what other measures are available for securing data?

45. How do you secure communication in your app?

46. How do you implement SSL pinning?

CI/CD

47. What CI/CD tools have you worked with?

Code Review

48. When you do a code review, what are the things you generally check?

SOLID Principles

49. What are the SOLID principles?

50. Can you provide practical examples of all SOLID principles?

51. Can you provide an example of the Liskov Substitution Principle in native iOS?

52. Give an example of dependency inversion.

Design Patterns

53. What design patterns do you know?

54. What is the difference between the factory pattern and the abstract factory pattern?

Push Notifications and App Groups

55. What are app groups?

56. Why do we use app groups?

57. Do you know the bundle identifier of Google Maps?

58. Have you worked on extensions, such as share extensions or push notification extensions?

59. Customization of push notifications: where do you get the image URL inside, and how do you show an image in a push notification?

Performance Optimization

60. How can one optimize the performance of an iOS application?