Mercedes Benz - October 2023

Swift Fundamentals

1. What are the differences between `Any` and `AnyObject` in Swift?

2. Is Swift an object-oriented language?

3. Is Swift a static or dynamic language?

4. What is the difference between value types and reference types in Swift?

5. How is interoperability achieved between Swift and Objective-C?

Object-Oriented Programming (OOP)

6. Can you explain Object-Oriented Programming (OOP) concepts?

7. Can you explain some object-oriented programming (OOP) concepts commonly used in Swift development?

8. What are the differences between protocols and inheritance?

Memory Management

9. How does memory management differ between Objective-C and Swift?

Architectures and Design Patterns

10. How can the VIPER architecture be applied to a login view?

11. Question on design patterns.

12. Why do we use protocols in Swift?

Frameworks, Libraries, and Singleton Pattern

13. Did you make a library or a framework? What are the differences between coding and creating a framework?

14. What are the benefits of using a Singleton pattern for an API class?

Asynchronous Programming and Multithreading

15. When should you use Grand Central Dispatch (GCD) versus Operation Queue?

16. What are the various types of queues?

17. What are the differences between DispatchQueue and OperationQueue in Swift?

SwiftUI Concepts

18. What is the difference between state and binding property in SwiftUI?

Closures

19. What are the different types of closures?

Performance Optimization

20. How do you handle code optimization and performance in a Swift application, including data optimization?

Debugging and Troubleshooting

21. How would you troubleshoot and resolve random crashes occurring on a client's device?

Advanced Swift

22. What is method swizzling, and does it work in Swift? If yes, how?

23. Can you explain functional programming?

Classes vs. Structures

24. When should you use a class versus a structure?

Challenges in Development

25. What are some challenging tasks you have encountered in your Swift development experience?