

## Final Project Discussion :

In developing the **KinStyle** AI-powered fashion application, I integrated multiple **API features** to enhance user experience and functionality. The **UIImage and PhotoKit** frameworks were used for handling image uploads and live camera features, allowing users to swap outfits and try AI-generated clothing. **UICollectionView** was implemented for displaying clothing items and outfits in an organized grid format. **Navigation controllers** enabled smooth transitions between screens, while **gesture recognizers** improved interactive elements like swiping through outfit options. Some features, such as real-time AI outfit customization, were implemented beyond the course materials, requiring additional research and experimentation.

During development, I faced several **challenges**. One of the biggest was implementing AI-powered outfit swapping while maintaining **real-time responsiveness**. Managing large image datasets efficiently was another challenge, which I overcame by optimizing image caching and compression. Additionally, integrating secure payment processing required troubleshooting issues with Apple Pay and third-party payment gateways.

Throughout the project, I encountered some **limitations of iOS SDK and Xcode**. One notable issue was the **Core ML model size constraints**, which limited AI processing on-device. Additionally, **Xcode's simulator limitations** made it challenging to test real-time camera-based outfit swapping accurately. These constraints required alternative testing on physical devices to ensure performance and accuracy.

Overall, my experience as an **iOS developer** has been rewarding. This project deepened my understanding of **UIKit, Core ML, and image processing**, while also improving my problem-solving skills. Working with real-time AI and fashion-based recommendations gave me valuable insights into **user experience (UX) design and performance optimization**. Moving forward, I aim to enhance my skills in **SwiftUI and ARKit** to build even more advanced iOS applications.