📱 News App – Modern Architecture Showcase

# 📌 Project Overview

This is a feature-rich Android application that I built by following a detailed YouTube tutorial. The app demonstrates Clean Architecture principles and uses the MVVM (Model-View-ViewModel) design pattern, along with many modern Android development libraries and tools.

The primary goal of this project was to gain hands-on experience with real-world architecture patterns and understand how scalable Android apps are structured. While I followed the tutorial closely and did not build this application from scratch, the experience gave me significant exposure to best practices and complex feature implementation in Android.

# 🚀 Features & Technologies Used

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| Feature Area | Tools / Libraries / Concepts |
| UI/UX | Jetpack Compose, Splash Screen, Onboarding Flow, Material Design |
| Architecture | Clean Architecture, MVVM Pattern |
| Networking | Retrofit (API Integration) |
| Dependency Injection | Dagger Hilt |
| Local Storage | Room Database |
| Pagination | Paging 3 |
| State Management | ViewModel, LiveData, Coroutines |
| Navigation | Jetpack Navigation Component |

# 📚 What I Learned

- How to structure a scalable Android app using Clean Architecture.  
- The importance of separating concerns using MVVM.  
- How to implement dependency injection with Dagger Hilt.  
- Best practices for handling paginated data with Paging 3.  
- Managing local and remote data sources using Room and Retrofit.  
- Designing modern Android UI with onboarding flows and splash screens.

## 📸 Screenshots

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| Splash Screen shows a branding animation when the app launches, giving a polished entry point. | Onboarding Screen introduces users to the app’s features with modern Material Design screens. |

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| Home Screen displays paginated content using `Paging 3`, fed by remote data from Retrofit. | Detail Screen Presents full article or data detail with smooth navigation from the home list. |

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| Search Functionality allows users to search through data dynamically. | Sharing and Open with Browser allow communication with external apps |

# ❗ Current Limitations

- This project was tutorial-based, and I am still in the process of gaining confidence in implementing these patterns independently.  
- Advanced tools like Dagger Hilt, Retrofit and Paging 3 are still challenging for me, but I am actively revisiting them for better understanding.

# 🎯 Next Steps

- Rebuild a smaller app using Clean Architecture without tutorial guidance to practice features like Room, Retrofit, and Dagger Hilt.  
- Continue learning from open-source Android projects to gain confidence and real-world experience.

# 👤 Author

**Meraj Hossen Akib**  
📧 [Merajhossen20001@gmail.com](mailto:Merajhossen20001@gmail.com)

🔗 +8801747666302  
🔗 https://www.linkedin.com/in/meraj-hossen-akib-005486291/  
🔗 https://github.com/Akibilies20001