

Team Name: <b>TechBloomers</b>	Date: <b>March 18, 2024</b>
Team Members: <b>Apoorva Panthagani</b> <b>Harpreet Kaur</b> <b>Puneet Rani</b> <b>Pawanpreet Kaur</b>	Assignment: <b>Architectural Decision Record</b>

## Scenario 1: Mobile App for a Retail Company

### Native, Web, or Hybrid App

Decision: Native app

Rationale: The best user experience and performance are provided by native apps, particularly when it comes to features like push notifications and offline mode. A native approach makes the most sense, considering the need for push alerts and flawless offline surfing.

### UI Framework

Decision: React Native

Rationale: Cross-platform programming is made possible with React Native while preserving native functionality and design. It is appropriate for creating features that work with both iOS and Android, such as product browsing and order history viewing.

## Backend Language

Decision: Node.js with Express.js

Rationale: The event-driven, non-blocking architecture of Node.js makes it perfect for managing asynchronous operations like push notifications and data synchronization. Express.js simple framework makes backend programming easier.

## Permissions

Decision: Establish granular authorization control for transactions and other sensitive activities like viewing order history.

Rationale: Maintaining appropriate permission control is crucial to safeguarding user information and avoiding illegal access to private areas like payment and order histories.

## Data Storage

Decision: MongoDB for flexibility and scalability.

Rationale: The document-oriented database style of MongoDB makes it simple to integrate with data structures that resemble JSON. This makes it appropriate for storing a variety of data kinds, including user profiles, order histories, and product details.

## **Additional Frameworks or Technology Stacks**

Decision: Firebase for real-time analytics and push notifications.

Rationale: In order to analyze user behavior and provide messages on time, Firebase offers a full set of capabilities for real-time data synchronization, analytics, and push notifications.