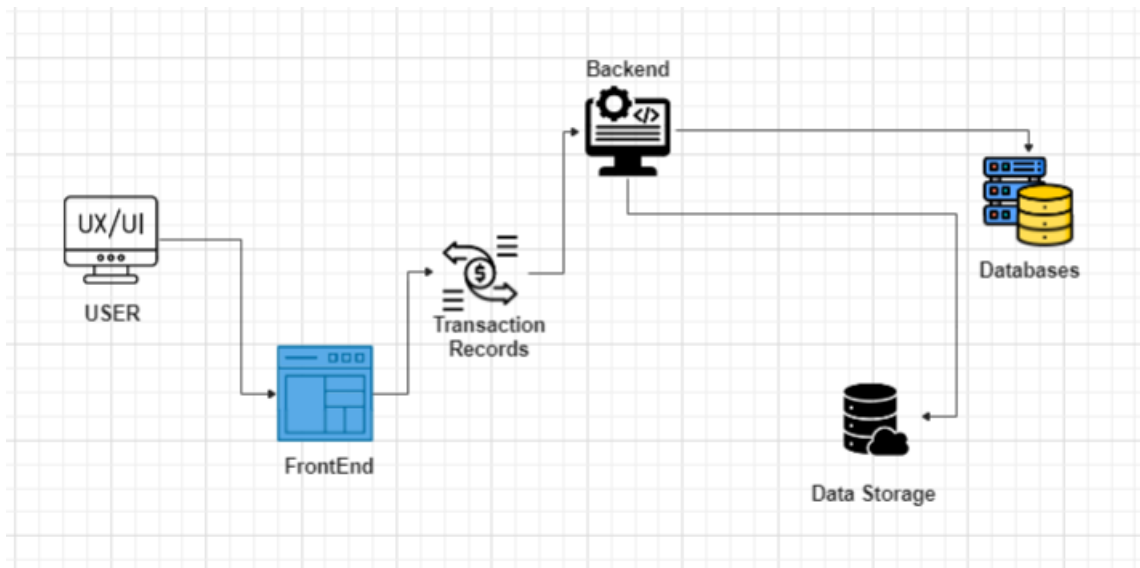


Project Design Phase-II Technology Stack (Architecture & Stack)

Date	01 November 2023
Team ID	PNT2023TMID590970
Project Name	Project – Money Matters
Maximum Marks	4 Marks

Technical Architecture:



Mobile/Desktop App:

- Developed using Kotlin for Android app development.
- Implements the user interface (UI) and user experience (UX).

Frontend Application:

- Written in Kotlin.
- Responsible for UI implementation.
- Communicates with the backend server for data retrieval and updates.

Backend Server:

- Developed using Kotlin.
- Manages business logic, including user authentication, data processing, and communication with external services.
- Exposes API endpoints for interaction with the frontend.

Data Storage:

- Stores user data, including profiles, transaction history, savings goals, and budget information.
- Utilizes a database management system (e.g., MySQL, PostgreSQL).

Database Management:

- Manages data storage, retrieval, and updates.
- Utilizes a relational database management system.

Table-1 : Components & Technologies:

S.No	Component	Description	Technology
1.	User Interface	How user interacts with app.	Kotlin, XML (Android Studio)
2.	Application Logic-1	User authentication and profile management	Kotlin, Firebase Authentication
3.	Application Logic-2	Expense tracking and budget management	Kotlin, SQLite Database
4.	Database	User data, transaction history, and settings	SQLite (Local Storage)
5.	File Storage	Storage for user-uploaded documents or receipts	Firebase Cloud Storage or Local Filesystem

Table-2: Application Characteristics:

S.No	Characteristics	Description	Technology
1.	Open-Source Frameworks	Utilization of open-source frameworks for development	Kotlin, Retrofit, OkHttp, Dagger 2
2.	Security Implementations	Implementation of security measures and access controls	HTTPS, Firebase Authentication, Encryption (TLS/SSL)
3.	Scalable Architecture	Justification for the scalability of the architecture	Microservices Architecture, Cloud Foundry

S.No	Characteristics	Description	Technology
4.	Availability	Ensuring high availability through load balancing	Load Balancers, Redundant Servers, Failover Systems
5.	Performance	Design considerations for optimal performance	Caching Strategies, CDN Integration