

# Software Requirements Specification for Blog App

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## Android Blog App (Java + Firebase)

### 1. Introduction

#### 1.1 Purpose

The Android Blog App allows users to create, read, update, and delete blog posts. Users can register, log in, and interact with posts using comments and likes. Firebase is used for authentication, database storage, and real-time data synchronization.

#### 1.2 Scope

- User authentication (Firebase Authentication)
- Blog post management
- Commenting and liking system
- Real-time synchronization (Firebase Realtime Database/Firestore)
- Cloud storage for images (Firebase Storage)
- Push notifications (Firebase Cloud Messaging)
- User profile management

#### 1.3 Technologies Used

- **Programming Language:** Java
- **Backend:** Firebase (Authentication, Firestore, Storage)
- **IDE:** Android Studio
- **Database:** Firestore/Realtime Database

### 2. Functional Requirements

#### 2.1 User Authentication

- Users can register using email/password authentication.
- Users can log in and log out.

- Users can reset their password.
- User can delete account

## 2.2 Blog Management

- Users can create blog posts with text and images.
- Users can edit and delete their own posts.
- Posts should be stored in Firestore/Realtime Database.

## 2.3 Comments and Likes

- Users can comment on blog posts.
- Users can like other's posts.
- Comments and likes are updated in real-time.

## 2.4 User Profiles

- Users can update their profile picture and display name.
- Profile details are stored in Firebase.

## 3. Non-Functional Requirements

- **Performance:** The app should load blog posts within 2 seconds.
- **Security:** Firebase authentication ensures data security.
- **Scalability:** Firebase allows real-time data updates and scaling.
- **Usability:** The UI should be user-friendly and responsive.

## 4. System Architecture

### 4.1 High-Level Design

- **Frontend:** Android app (Java, XML)
- **Backend:** Firebase (Firestore, Storage, Authentication, Cloud Functions)

## 5. Constraints

- Requires internet connection for real-time updates.
- Users must have a Firebase account to log in.

- Limited to Firebase's free-tier quota unless upgraded.

## **6. Future Enhancements**

- Dark mode support.
- Admin dashboard for post moderation.
- Additional social media sharing features.

## **7. Conclusion**

This SRS outlines the functional and non-functional requirements for developing an Android Blog App using Java and Firebase. The app aims to provide a seamless blogging experience with real-time interaction, authentication, and media storage.