

# PERSONAL FEED – AN ANDROID STUDIO & FIREBASE PROJECT

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## DESIGN OF THE APPLICATION

In this project, we create an application with the objective to provide a personal feed for the user to keep track of any recent purchases or products or whatever the user owns. The main components of this project include Authentication Flow, Adding new products, Edit and Verify Profile options, Search and Display of the products added by the user. The front end is completely done in Android Studio whereas the backend is implemented using Firebase.

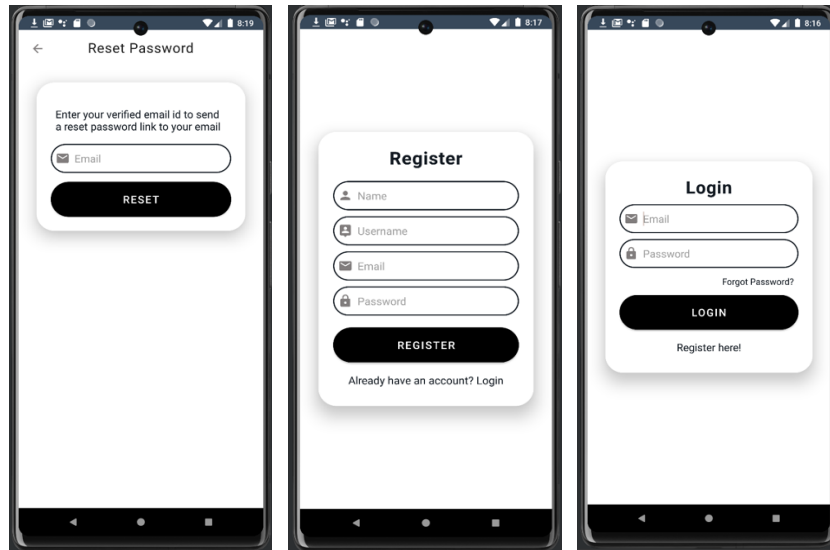
### COMPONENTS USED:

Firebase Realtime Database	Dynamic UI	Manual Functions	Data elements
Firebase Authentication	Splash Screen	On Click Listener	Override Methods
Firebase Storage	Intents	ActivityResultLauncher	UI Elements

### AUTHENTICATION FLOW:

The basic authentication flow is created for the user to register, login into an existing account and reset their password if forgotten. Initially, the login page will be displayed on default if the user opens the application.

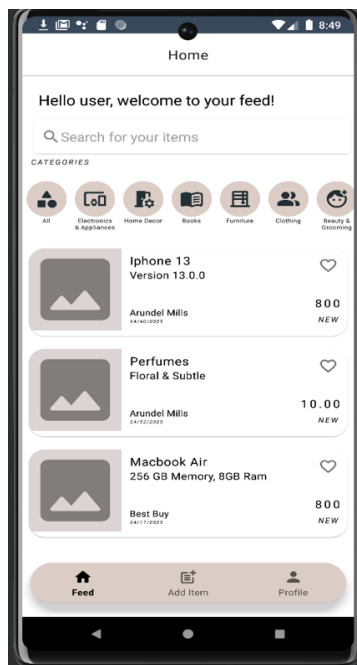
- **Login:** By default, the login page of the application will open, and user can enter their registered email and password and click on the “Login” button. The user will be authenticated using Firebase Authentication.
- **Forgot Password:** For the Forgot Password flow, the user can enter their registered email address and click on the “RESET” button. A link with the option to enter a new password will be sent to the user’s email address. The user can login with their new password.
- **Register:** If the user doesn’t have an account, the user can click “Register here!” in the login page to navigate to the registration screen and once the user enters their details and clicks on the “Register” button. An account will be created for the user using Firebase Authentication.



## HOME FLOW:

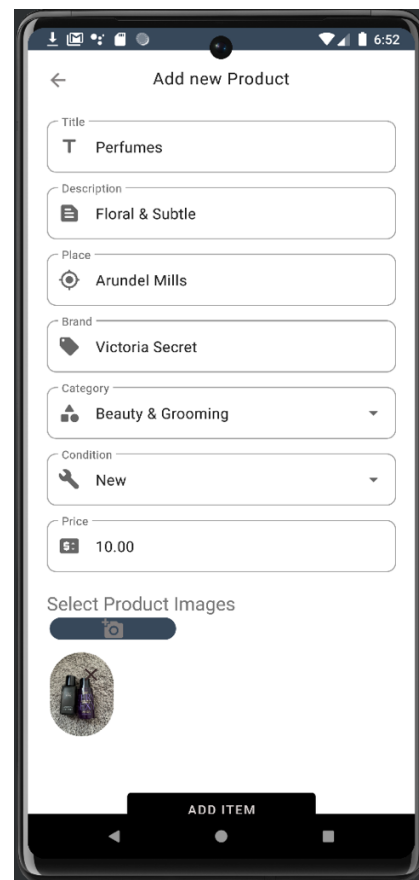
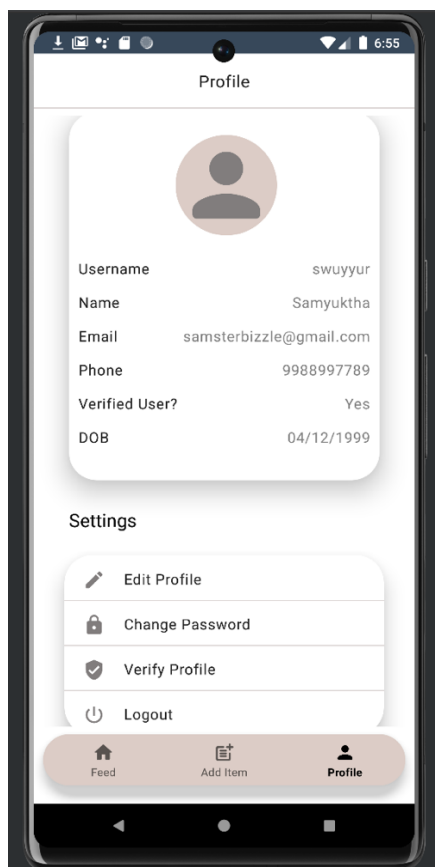
Once the user is logged into the application, the user is directed to the Home feed, where the user can Search for items, select different Categories to view items, and view the items previously added by them.

- **Search:** There is a search bar present in the top of the home screen which the user can utilize to search for their items which are present in the Realtime database.
- **Category Based View:** The user can click on the categories to get the items present in the database which are related to that category.
- **All item View:** By default, once the user logs in, the feed will display all the items that the user has previously added to the database.



**PROFILE FLOW:** The user can view their profile details by clicking the “Profile” button in the navigation bar. The profile will consist of details like username, name, email, phone, Verified user and Date of Birth.

- **Edit Profile:** The user also has access to settings like Editing the profile where the user can update the details of their profile.
- **Verify profile** can be used to confirm the email address given by the user during registration process. If the user is verified, the “Verified User?” will display Yes in the profile.
- **Change Password:** The user can change their password to a new one using this option.
- **Logout:** The user can log out if they wish to, using this Logout button.



### ADD NEWACTIVITY FLOW:

The user can enter the details of the product that they wish to add to the database in the following way. The user will also have the option to add images for each product. Once the user has entered the details, they can click the “Add Item” button to add the details to database. There is an option to select images of this item as well. The user can either choose to add the image from camera and photos.

## FIREBASE:

The user and item details are stored in the Firebase database and user authentication process will be done using Firebase Authentication.

