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1. **[Initial Setup].** Create new empty project on android studio
2. **[Connect to Database].** Connect to firebase account, and connect to the firebase auth, cloud storage and firebase database
3. **[Initial whatsapp background]** Setup styles.xml , add new resource file for layout and edit, modify activity\_main.xml. Then modify MainActivity.Java to connect with activity\_main.xml
4. **[Add fragment Tab layout].** Edit activity\_main.xml to add bar fragment, then go to MainActivity.Java. Create new fragment, on java folder of your project. Right click and create new fragment blank. Chat fragment, Groups Fragment, and Contacts Fragment. Modify the xml first for all fragments. Then, create new java class for TabAccessorAdaptor.Java. Then go to MainActivity.Java to connect all code
5. **[Firebase user authentication].** Edit MainActivity. Then, create new activity under the project folder for login activity. Then first edit the activity\_login.xml. Then go to drawable res, click to new resource to make buttons.xml and inputs.xml. Then create new activity register\_activity
6. **[Login and registration with Firebase].** Setup proper layout for activity\_login.xml and activity\_register.xml
7. **[Already have account and need new account link].** Modify LoginActivity.java, RegisterActivity.java
8. **[Email Password authentication].** Coding on RegisterActivity.java
9. **[Firebase Sign in with email and password].** Coding on LoginActivity.java, MainActivity.java
10. **[Firebase Sign Out android].** On res folder right click, new android resource directory “menus”. Edit the options\_menu.xml. Then connect it to MainActivity.java
11. **[Creating firebase database].** Checking the apps connection to the firebase
12. **[Settings Activity].** Setup profile picture, update status, username.
13. **[Group Chat].**
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30. Crash while klik find friends