The SignUpActivity class is part of the Android application under the package com.example.app. It represents the screen where users can create a new account by entering a username and password. The class extends AppCompatActivity, which provides backward-compatible features of the Android activity class and integrates nicely with modern UI components like ViewBinding.

Inside the onCreate() method, which is called when the activity is first created, the layout is set up using **ViewBinding**. Instead of using findViewById, ActivitySignUpBinding.inflate(layoutInflater) is used to initialize the binding object, which allows safe and efficient access to the views defined in activity\_sign\_up.xml.

A DatabaseHelper object is then initialized with the current context. This helper class is responsible for managing user data in a local SQLite database, including inserting and reading user credentials. When the user taps the **Sign Up** button, a setOnClickListener captures the username and password entered in the text fields using binding.signupUsername.text.toString() and binding.signupPassword.text.toString().

The method signupDatabase() is then called with these values. This method uses the insertUser() function from DatabaseHelper to add the new user’s credentials to the database. If the insertion is successful (i.e., the returned row ID is not -1), a success message is displayed using a Toast, and the app navigates back to the LoginActivity screen via an Intent. The finish() method is called to close the sign-up screen so that it’s removed from the activity stack.

If the insertion fails (e.g., due to a database issue), a failure message is displayed to inform the user. Additionally, there's a loginRedirect click listener, which allows users who already have an account to go directly to the login screen without signing up again. This navigation also uses an Intent.

Overall, this code cleanly separates UI logic from database logic, uses ViewBinding for safe view access, and follows good practices for handling user interactions and navigation in Android.

Github link = [OPSC6311Part3/README.md at main · ST10369363/OPSC6311Part3](https://github.com/ST10369363/OPSC6311Part3)

Video link = <https://youtu.be/zxMxXnNUOeM>