```
MainActivity.java (Single activity for the entire app)---->
public class MainActivity extends AppCompatActivity {
  private static final int RC SIGN IN = 123;
  private GoogleSignInClient mGoogleSignInClient;
  private boolean isLoggedIn = false;
  @Override
  protected void onCreate(Bundle savedInstanceState) {
    super.onCreate(savedInstanceState);
    setContentView(R.layout.activity_main);
    GoogleSignInOptions gso = new
GoogleSignInOptions.Builder(GoogleSignInOptions.DEFAULT_SIGN_IN)
         .requestEmail()
         .build();
    mGoogleSignInClient = GoogleSignIn.getClient(this, gso);
    isLoggedIn = checkLoggedInUser();
    if (!isLoggedIn) {
       showLoginScreen();
    } else {
       showNotesScreen();
    }
  }
  private boolean checkLoggedInUser() {
    return false; // Placeholder, replace with actual implementation
  }
  private void showLoginScreen() {
  private void showNotesScreen() {
    getSupportFragmentManager().beginTransaction()
         .replace(R.id.fragment_container, new NotesFragment())
         .commit();
  }
  @Override
  protected void onActivityResult(int requestCode, int resultCode, @Nullable Intent data) {
    super.onActivityResult(requestCode, resultCode, data);
    if (requestCode == RC_SIGN_IN) {
       Task<GoogleSignInAccount> task =
GoogleSignIn.getSignedInAccountFromIntent(data);
       handleSignInResult(task);
    }
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}
  private void handleSignInResult(Task<GoogleSignInAccount> completedTask) {
    try {
       GoogleSignInAccount account = completedTask.getResult(ApiException.class);
       isLoggedIn = true;
       showNotesScreen();
    } catch (ApiException e) {
       Log.w("GoogleSignIn", "signInResult: failed code=" + e.getStatusCode());
    }
  }
}
NotesFragment.java (Fragment for displaying notes using RecyclerView)====>
public class NotesFragment extends Fragment {
  private RecyclerView recyclerView;
  private List<String> notesList = new ArrayList<>();
  private NotesAdapter notesAdapter;
  @Override
  public View onCreateView(LayoutInflater inflater, ViewGroup container,
                 Bundle savedInstanceState) {
    View view = inflater.inflate(R.layout.fragment_notes, container, false);
    recyclerView = view.findViewById(R.id.recyclerView);
    recyclerView.setLayoutManager(new LinearLayoutManager(getContext()));
    notesAdapter = new NotesAdapter(notesList);
    recyclerView.setAdapter(notesAdapter);
    notesList.add("Note 1");
    notesList.add("Note 2");
    notesList.add("Note 3");
    view.findViewById(R.id.btnAddNote).setOnClickListener(new View.OnClickListener() {
       @Override
       public void onClick(View v) {
       }
    });
    return view;
  }
}
```

NotesAdapter.java (RecyclerView adapter for displaying notes)----->

```
public class NotesAdapter extends RecyclerView.Adapter<NotesAdapter.ViewHolder> {
  private List<String> notesList;
  public NotesAdapter(List<String> notesList) {
    this.notesList = notesList;
  }
  @NonNull
  @Override
  public ViewHolder onCreateViewHolder(@NonNull ViewGroup parent, int viewType) {
    View view = LayoutInflater.from(parent.getContext()).inflate(R.layout.item_note, parent,
false);
    return new ViewHolder(view);
  }
  @Override
  public void onBindViewHolder(@NonNull ViewHolder holder, int position) {
    String note = notesList.get(position);
    holder.bind(note);
  }
  @Override
  public int getItemCount() {
    return notesList.size();
  }
  public static class ViewHolder extends RecyclerView.ViewHolder {
    private TextView txtNote;
    public ViewHolder(@NonNull View itemView) {
       super(itemView);
       txtNote = itemView.findViewById(R.id.txtNote);
    }
    public void bind(String note) {
       txtNote.setText(note);
    }
  }
}
item note.xml (Layout file for individual note item in RecyclerView)---->
<!-- Replace with your desired layout for individual note item -->
<TextView
  xmlns:android="http://schemas.android.com/apk/res/android"
  android:id="@+id/txtNote"
```

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android:layout_width="match_parent"
  android:layout_height="wrap_content"
  android:padding="16dp"/>
fragment notes.xml (Layout file for NotesFragment)---->
<!-- Replace with your desired layout for NotesFragment -->
<RelativeLayout xmlns:android="http://schemas.android.com/apk/res/android"
  android:layout_width="match_parent"
  android:layout_height="match_parent">
  <RecyclerView
    android:id="@+id/recyclerView"
    android:layout_width="match_parent"
    android:layout height="match parent"
    android:padding="16dp"/>
  <Button
    android:id="@+id/btnAddNote"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="Add Note"
    android:layout_alignParentBottom="true"
    android:layout_alignParentEnd="true"
    android:layout_margin="16dp"/>
</RelativeLayout>
```