```
import androidx.annotation.NonNull;
import androidx.appcompat.app.AlertDialog;
import androidx.appcompat.app.AppCompatActivity;
import androidx.core.content.ContextCompat;
import androidx.recyclerview.widget.LinearLayoutManager;
import androidx.recyclerview.widget.RecyclerView;
import android.content.SharedPreferences;
import android.os.Bundle;
import android.os.Parcelable;
import android.view.LayoutInflater;
import android.view.View;
import android.widget.Button;
import android.widget.EditText;
import android.widget.RelativeLayout;
import android.widget.TextView;
import android.widget.Toast;
import com.example.covid_19alertapp.R;
import com.example.covid_19alertapp.adapters.CommentFeedAdapter;
import com.example.covid_19alertapp.adapters.FeedAdapter;
import com.example.covid_19alertapp.extras.Constants;
import com.example.covid_19alertapp.extras.DateTimeHandler;
import com.example.covid_19alertapp.models.Comment;
import com.google.android.gms.tasks.OnFailureListener;
```

package com.example.covid_19alertapp.activities;

```
import com.google.android.gms.tasks.OnSuccessListener;
import com.google.android.material.floatingactionbutton.FloatingActionButton;
import com.google.firebase.database.DataSnapshot;
import com.google.firebase.database.DatabaseError;
import com.google.firebase.database.DatabaseReference;
import com.google.firebase.database.FirebaseDatabase;
import com.google.firebase.database.MutableData;
import com.google.firebase.database.Transaction;
import com.google.firebase.database.ValueEventListener;
import java.util.ArrayList;
public class CommentFeedActivity extends AppCompatActivity {
  AlertDialog dialogBuilder;
  FloatingActionButton floatingActionButton;
  EditText comment_editText;
  Button btn_cancel, btn_submit, btn_home;
  TextView post_body, post_auth, post_datetime,comment_bar;
  SharedPreferences sharedPreferences:
  DatabaseReference view_reference,comment_reference,cCount_reference;
  RecyclerView recyclerView;
  ArrayList<Comment> commentList;
  RelativeLayout relativeLayout;
  CommentFeedAdapter commentFeedAdapter;
```

```
private Parcelable recyclerViewState;
  @Override
  protected void onCreate(Bundle savedInstanceState) {
    super.onCreate(savedInstanceState);
    setContentView(R.layout.comment_feed_activity);
    comment_reference =
FirebaseDatabase.getInstance().getReference().child("Posts").child(FeedAdapter.POST.getPostID());
    recyclerView = findViewById(R.id.recyclerView_comment_feed);
    relativeLayout = findViewById(R.id.relief_line_commentfeed);
    btn_home = findViewById(R.id.home_button_comment_feed);
    post_body = findViewById(R.id.description_Text_comment_feed);
    post_auth = findViewById(R.id.textView_username_comment_feed);
    post_datetime = findViewById(R.id.textView_DatenTime_comment_feed);
    comment_bar = findViewById(R.id.comment_bar);
    //Set Post
    post_body.setText(FeedAdapter.POST.getPostBody());
    post_auth.setText(FeedAdapter.POST.getUserName());
    if(FeedAdapter.POST.getPostType().equals("RELIEF"))
    {
```

```
relativeLayout.setBackgroundColor(ContextCompat.getColor(getApplicationContext(),
R.color.color item view relief line));
    }
    String post date = FeedAdapter.POST.getDate();
    if(post_date.equals(DateTimeHandler.DateToday()))
    {
      post_date = "Today";
    }
    String post_date_time = post_date + ", " + FeedAdapter.POST.getTime();
    post_datetime.setText(post_date_time);
    //Create Comment
    floatingActionButton = findViewById(R.id.floatingActionButton_comment_feed);
    dialogBuilder = new AlertDialog.Builder(this).create();
    LayoutInflater inflater = this.getLayoutInflater();
    View dialogView = inflater.inflate(R.layout.post comment view, null);
    btn_submit = dialogView.findViewById(R.id.btn_submit_comment);
    btn_cancel = dialogView.findViewById(R.id.btn_cancel_comment);
    comment editText = dialogView.findViewById(R.id.editText comment);
    dialogBuilder.setView(dialogView);
    btn_cancel.setOnClickListener(new View.OnClickListener() {
      @Override
```

```
public void onClick(View v) {
        comment_editText.setText("");
        dialogBuilder.dismiss();
      }
   });
    btn_home.setOnClickListener(new View.OnClickListener() {
      @Override
      public void onClick(View v) {
        finish();
      }
    });
    btn_submit.setOnClickListener(new View.OnClickListener() {
      @Override
      public void onClick(View v) {
        //Write Post Comment Function
        sharedPreferences =
getSharedPreferences(Constants.USER_INFO_SHARED_PREFERENCES,MODE_PRIVATE);
        String user_name = sharedPreferences.getString(Constants.username_preference,null);
        String user_ID = sharedPreferences.getString(Constants.uid_preference,null);
        String comment_ID = comment_reference.push().getKey();
        Comment comment = new Comment();
```

```
comment.setComment_date(DateTimeHandler.DateToday());
comment.setComment_text(comment_editText.getText().toString());
comment.setComment_time(DateTimeHandler.TimeNow());
comment.setPost_id(FeedAdapter.POST.getPostID());
comment.setUser_name(user_name);
comment.setUser_id(user_ID);
comment.setComment_id(comment_ID);
if(FeedAdapter.POST.getPostType().equals("RELIEF"))
{
  if(FeedAdapter.POST.getUserID().equals(user_ID))
    comment.setUser_name("Anonymous");
  }
}
comment_reference.child("Comments").child(comment_ID).setValue(comment)
    .addOnSuccessListener(new OnSuccessListener<Void>() {
  @Override
  public void onSuccess(Void aVoid) {
    increaseCommentCount();
    comment_editText.setText("");
    dialogBuilder.dismiss();
  }
}).addOnFailureListener(new OnFailureListener() {
```

```
@Override
                                           public void onFailure(@NonNull Exception e) {
                                                   Toast.makeText(getApplicationContext(),"Failed: Check Internet
Connection", Toast.LENGTH_SHORT);
                                          }
                                 });
                         }
                });
                 floatingActionButton.setOnClickListener(new View.OnClickListener() {
                          @Override
                          public void onClick(View v) {
                                   dialogBuilder.show();
                         }
                });
                 //RecyclerView
                 LinearLayoutManager manager = new LinearLayoutManager(this);
                 recyclerView.setLayoutManager(manager);
                 recyclerView.setHasFixedSize(true);
                 view reference =
Fire base Database.get Instance ().get Reference ().child ("Posts").child (Feed Adapter.POST.get Post ID ()).child (Posts").child (Posts").
("Comments");
                 view_reference.addValueEventListener(new ValueEventListener() {
```

```
public void onDataChange(@NonNull DataSnapshot dataSnapshot) {
        commentList = new ArrayList<>();
        for(DataSnapshot dataSnapshot1:dataSnapshot.getChildren())
        {
          Comment = dataSnapshot1.getValue(Comment.class);
          commentList.add(comment);
        }
        if(commentList.isEmpty()) {comment_bar.setText("No Comments Yet");}
        //Collections.reverse(commentList);
        commentFeedAdapter = new CommentFeedAdapter(getApplicationContext(),commentList);
        recyclerViewState = recyclerView.getLayoutManager().onSaveInstanceState();
        recyclerView.setAdapter(commentFeedAdapter);
        recyclerView.getLayoutManager().onRestoreInstanceState(recyclerViewState);
      }
      @Override
      public void onCancelled(@NonNull DatabaseError databaseError) {
        Toast.makeText(getApplicationContext(),"Something Wrong!\nCheck Internet Connection.",
Toast.LENGTH_LONG).show();
      }
    });
```

@Override

```
}
         public void increaseCommentCount()
         {
                  cCount_reference =
Fire base Database.get Instance ().get Reference ("Posts"). child (Feed Adapter. POST.get Post ID ()). child ("complex and post ID
mentCount");
                  cCount_reference.runTransaction(new Transaction.Handler() {
                           @Override
                           public Transaction.Result doTransaction(MutableData mutableData) {
                                    Integer score = mutableData.getValue(Integer.class);
                                    if (score == null) { return Transaction.success(mutableData); }
                                     mutableData.setValue(score + 1);
                                    return Transaction.success(mutableData);
                           }
                           @Override
                           public void onComplete(DatabaseError databaseError, boolean b, DataSnapshot dataSnapshot) {}
                 });
        }
}
```