**+49 176 61434399  
This person from germany got this project from me and haven’t paid me. He did fraud with me  
  
  
package** com.example.android\_firebase\_todo\_app;  
  
**import** androidx.annotation.NonNull;  
**import** androidx.appcompat.app.AppCompatActivity;  
  
**import** android.content.Context;  
**import** android.content.Intent;  
**import** android.content.SharedPreferences;  
**import** android.os.Bundle;  
**import** android.preference.PreferenceManager;  
**import** android.text.TextUtils;  
**import** android.view.Menu;  
**import** android.view.MenuItem;  
**import** android.view.View;  
**import** android.view.inputmethod.EditorInfo;  
**import** android.widget.Button;  
**import** android.widget.EditText;  
**import** android.widget.TextView;  
**import** android.widget.Toast;  
  
**import** com.firebase.ui.auth.AuthUI;  
**import** com.google.android.gms.tasks.OnCompleteListener;  
**import** com.google.android.gms.tasks.Task;  
**import** com.google.android.material.snackbar.Snackbar;  
**import** com.google.firebase.Timestamp;  
**import** com.google.firebase.auth.FirebaseAuth;  
**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.ValueEventListener;  
**import** com.google.firebase.firestore.DocumentReference;  
**import** com.google.firebase.firestore.FirebaseFirestore;  
  
**public class** CreateTodoActivity **extends** AppCompatActivity **implements** FirebaseAuth.AuthStateListener {  
  
 Button **btnCrearTodo**, **btnVerLista**;  
 EditText **txtTitle**, **txtContent**;  
 FirebaseFirestore **firestore** = FirebaseFirestore.*getInstance*();  
  
 @Override  
 **protected void** onCreate(Bundle savedInstanceState) {  
 **super**.onCreate(savedInstanceState);  
 setContentView(R.layout.***activity\_create\_todo***);  
  
 **btnCrearTodo** = (Button) findViewById(R.id.***btnCrearTodo***);  
 **btnVerLista** = (Button) findViewById(R.id.***btnVerLista***);  
 **txtTitle** = (EditText) findViewById(R.id.***editTextTituloTodo***);  
 **txtContent** = (EditText) findViewById(R.id.***editTextContenidoTodo***);  
  
 **btnCrearTodo**.setOnClickListener(**this**::createTodo);  
 **btnVerLista**.setOnClickListener(**this**::listaTodos);  
  
 String userId = getStringPref(CreateTodoActivity.**this**, **"uid"**);  
  
  
 DatabaseReference userRef = FirebaseDatabase.*getInstance*().getReference(**"users"**).child(userId);  
  
  
 userRef.addValueEventListener(**new** ValueEventListener() {  
 @Override  
 **public void** onDataChange(@NonNull DataSnapshot dataSnapshot) {  
  
 User user = dataSnapshot.getValue(User.**class**);  
  
  
 **if** (user != **null**) {  
 TextView userName = findViewById(R.id.***txtName***);  
 userName.setText(**"Welcome! "**+user.**name**);  
 TextView userPhone = findViewById(R.id.***txtNo***);  
 userPhone.setText(user.**phone**);  
 }  
 }  
  
 @Override  
 **public void** onCancelled(@NonNull DatabaseError databaseError) {  
 }  
 });  
  
 }  
  
 **public void** createTodo(View v) {  
  
 **if** (TextUtils.*isEmpty*(**txtTitle**.getText().toString()) || TextUtils.*isEmpty*(**txtContent**.getText().toString())) {  
 Snackbar.*make*(v, **"You must enter text in the title and content."**, Snackbar.***LENGTH\_LONG***).show();  
 **return**;  
 }  
  
  
 String user = FirebaseAuth.*getInstance*().getCurrentUser().getUid();  
  
 TODO todoDocument = **new** TODO(**txtTitle**.getText().toString(), **txtContent**.getText().toString(), **false**, Timestamp.*now*(), Timestamp.*now*(), user);  
  
 **firestore**.collection(**"todos"**).add(todoDocument).addOnCompleteListener(task -> {  
 **if** (task.isSuccessful()) {  
 Snackbar.*make*(v, **"TO-DO created successfully!"**, Snackbar.***LENGTH\_LONG***).show();  
 Toast.*makeText*(**this**,**"TO-DO created successfully!"**,Toast.***LENGTH\_SHORT***).show();  
 **txtTitle**.getText().clear();  
 **txtContent**.getText().clear();  
 **txtTitle**.requestFocus();  
 } **else** {  
 Snackbar.*make*(v, **"There was a problem creating the TO-DO!"**, Snackbar.***LENGTH\_LONG***).show();  
 }  
 });  
 }  
  
 @Override  
 **public void** onAuthStateChanged(@NonNull FirebaseAuth firebaseAuth) {  
 **if** (FirebaseAuth.*getInstance*().getCurrentUser() == **null**) {  
 startSignUpLoginActivity();  
 **return**;  
 }  
 }  
  
 @Override  
 **protected void** onStart() {  
 **super**.onStart();  
 FirebaseAuth.*getInstance*().addAuthStateListener(**this**);  
 }  
  
 @Override  
 **protected void** onStop() {  
 **super**.onStop();  
 FirebaseAuth.*getInstance*().removeAuthStateListener(**this**);  
 }  
  
 **public void** startSignUpLoginActivity() {  
 Intent intent = **new** Intent(**this**, LoginActivity.**class**);  
 startActivity(intent);  
 finish();  
 }  
  
 **public void** listaTodos(View v) {  
  
  
 Intent i = **new** Intent(**this**, VerTodosActivity.**class**);  
 startActivity(i);  
 }  
  
 @Override  
 **public boolean** onCreateOptionsMenu(Menu menu) {  
 getMenuInflater().inflate(R.menu.***menu\_scrolling***, menu);  
 **return true**;  
 }  
  
 @Override  
 **public boolean** onOptionsItemSelected(@NonNull MenuItem item) {  
 **if** (item.getItemId() == R.id.***action\_logout***) {  
  
 savePref(CreateTodoActivity.**this**, **"uid"**, **""**);  
 Intent intent = **new** Intent(**this**, LoginActivity.**class**);  
 intent.addFlags(Intent.***FLAG\_ACTIVITY\_CLEAR\_TOP*** | Intent.***FLAG\_ACTIVITY\_NEW\_TASK***);  
 startActivity(intent);  
 CreateTodoActivity.**this**.finish();  
  
 }  
 **return true**;  
 }  
  
 **public** String getStringPref(Context context, String key){  
 SharedPreferences sp = PreferenceManager.*getDefaultSharedPreferences*(context);  
 **return** sp.getString(key, **""**);  
 }  
  
 **public void** savePref(Context context, String key, String value){  
 SharedPreferences.Editor editor = PreferenceManager.*getDefaultSharedPreferences*(context).edit();  
 editor.putString(key, value);  
 editor.apply();  
 }  
}

**package** com.example.android\_firebase\_todo\_app;  
  
**import** android.content.Context;  
**import** android.content.Intent;  
**import** android.content.SharedPreferences;  
**import** android.os.Bundle;  
**import** android.preference.PreferenceManager;  
**import** android.text.TextUtils;  
**import** android.util.Log;  
**import** android.view.View;  
**import** android.widget.Button;  
**import** android.widget.EditText;  
**import** android.widget.Toast;  
  
**import** androidx.annotation.NonNull;  
**import** androidx.appcompat.app.AppCompatActivity;  
  
**import** com.google.android.gms.tasks.OnCompleteListener;  
**import** com.google.android.gms.tasks.Task;  
**import** com.google.firebase.auth.AuthResult;  
**import** com.google.firebase.auth.FirebaseAuth;  
**import** com.google.firebase.database.DatabaseReference;  
**import** com.google.firebase.database.FirebaseDatabase;  
  
**public class** LoginActivity **extends** AppCompatActivity {  
  
 **private** FirebaseAuth **mAuth**;  
 **private** EditText **editTextEmail**, **editTextPassword**;  
 **private** Button **buttonSignUp**, **buttonLogin**;  
  
 @Override  
 **protected void** onCreate(Bundle savedInstanceState) {  
 **super**.onCreate(savedInstanceState);  
 setContentView(R.layout.***activity\_login***);  
  
 **if**(!getStringPref(LoginActivity.**this**, **"uid"**).equals(**""**)){  
 startActivity(**new** Intent(LoginActivity.**this**,CreateTodoActivity.**class**));  
 finish();  
 }  
  
 **mAuth** = FirebaseAuth.*getInstance*();  
  
 **editTextEmail** = findViewById(R.id.***editTextEmail***);  
 **editTextPassword** = findViewById(R.id.***editTextPassword***);  
  
 **buttonSignUp** = findViewById(R.id.***buttonSignUp***);  
 **buttonLogin** = findViewById(R.id.***buttonLogin***);  
  
  
 **buttonSignUp**.setOnClickListener(**new** View.OnClickListener() {  
 @Override  
 **public void** onClick(View view) {  
 startActivity(**new** Intent(LoginActivity.**this**, SignupActivity.**class**));  
 }  
 });  
  
 **buttonLogin**.setOnClickListener(**new** View.OnClickListener() {  
 @Override  
 **public void** onClick(View view) {  
 login();  
 }  
 });  
 }  
  
  
  
 **private boolean** isEmpty(EditText etText) {  
 **if** (etText.getText().toString().trim().length() > 0)  
 **return false**;  
  
 **return true**;  
 }  
 **private void** login() {  
  
 **if**(isEmpty(**editTextEmail**) || isEmpty(**editTextPassword**)){  
 Toast.*makeText*(LoginActivity.**this**, **"Some fields are empty"**, Toast.***LENGTH\_LONG***).show();  
 }**else**{  
 String email = **editTextEmail**.getText().toString();  
 String password = **editTextPassword**.getText().toString();  
  
 **mAuth**.signInWithEmailAndPassword(email, password)  
 .addOnCompleteListener(**this**, **new** OnCompleteListener<AuthResult>() {  
 @Override  
 **public void** onComplete(@NonNull Task<AuthResult> task) {  
 **if** (task.isSuccessful()) {  
  
 Toast.*makeText*(LoginActivity.**this**, **"Login successful"**, Toast.***LENGTH\_SHORT***).show();  
  
 savePref(LoginActivity.**this**, **"uid"**, **mAuth**.getUid());  
 startActivity(**new** Intent(LoginActivity.**this**,CreateTodoActivity.**class**));  
 finish();  
  
  
  
 } **else** {  
 Toast.*makeText*(LoginActivity.**this**, **"Login failed: "** + task.getException().getMessage(), Toast.***LENGTH\_SHORT***).show();  
 }  
 }  
 });  
 }  
  
 }  
  
 **public void** savePref(Context context, String key, String value){  
 SharedPreferences.Editor editor = PreferenceManager.*getDefaultSharedPreferences*(context).edit();  
 editor.putString(key, value);  
 editor.apply();  
 }  
  
 **public** String getStringPref(Context context, String key){  
 SharedPreferences sp = PreferenceManager.*getDefaultSharedPreferences*(context);  
 **return** sp.getString(key, **""**);  
 }  
}

**package** com.example.android\_firebase\_todo\_app;  
  
**import** androidx.annotation.NonNull;  
**import** androidx.appcompat.app.AppCompatActivity;  
  
**import** android.content.Context;  
**import** android.content.Intent;  
**import** android.content.SharedPreferences;  
**import** android.os.Bundle;  
**import** android.preference.PreferenceManager;  
**import** android.text.TextUtils;  
**import** android.view.View;  
**import** android.widget.Button;  
**import** android.widget.EditText;  
**import** android.widget.Toast;  
  
**import** com.google.android.gms.tasks.OnCompleteListener;  
**import** com.google.android.gms.tasks.Task;  
**import** com.google.firebase.auth.AuthResult;  
**import** com.google.firebase.auth.FirebaseAuth;  
**import** com.google.firebase.database.DatabaseReference;  
**import** com.google.firebase.database.FirebaseDatabase;  
  
**public class** SignupActivity **extends** AppCompatActivity {  
  
 **private** FirebaseAuth **mAuth**;  
  
 **private** EditText **editTextEmail**, **editTextPassword**;  
 **private** EditText **editTextName**, **editTextPhone**;  
 **private** Button **buttonSignUp**, **buttonLogin**;  
 @Override  
 **protected void** onCreate(Bundle savedInstanceState) {  
 **super**.onCreate(savedInstanceState);  
 setContentView(R.layout.***activity\_signup***);  
  
 **mAuth** = FirebaseAuth.*getInstance*();  
  
 **editTextEmail** = findViewById(R.id.***email***);  
 **editTextPassword** = findViewById(R.id.***password***);  
 **editTextName** = findViewById(R.id.***name***);  
 **editTextPhone** = findViewById(R.id.***phone***);  
  
 **buttonSignUp** = findViewById(R.id.***signup***);  
   
 findViewById(R.id.***back***).setOnClickListener(**new** View.OnClickListener() {  
 @Override  
 **public void** onClick(View view) {  
  
 onBackPressed();  
 }  
 });  
  
 **buttonSignUp**.setOnClickListener(**new** View.OnClickListener() {  
 @Override  
 **public void** onClick(View view) {  
  
 **if**(isEmpty(**editTextEmail**) || isEmpty(**editTextPassword**) || isEmpty(**editTextName**) || isEmpty(**editTextPhone**)){  
 Toast.*makeText*(SignupActivity.**this**, **"Some fields are empty"**, Toast.***LENGTH\_LONG***).show();  
 }**else**{  
 signUp();  
 }  
  
 }  
 });  
  
 }  
  
 **private boolean** isEmpty(EditText etText) {  
 **if** (etText.getText().toString().trim().length() > 0)  
 **return false**;  
  
 **return true**;  
 }  
 **private void** signUp() {  
 String email = **editTextEmail**.getText().toString();  
 String password = **editTextPassword**.getText().toString();  
 **if** (TextUtils.*isEmpty*(**editTextName**.getText().toString()) || TextUtils.*isEmpty*(**editTextPhone**.getText().toString()) || TextUtils.*isEmpty*(**editTextEmail**.getText().toString()) || TextUtils.*isEmpty*(**editTextPassword**.getText().toString())) {  
 Toast.*makeText*(SignupActivity.**this**, **"All fields are required."**, Toast.***LENGTH\_SHORT***).show();  
 } **else** {  
 **mAuth**.createUserWithEmailAndPassword(email, password)  
 .addOnCompleteListener(**this**, **new** OnCompleteListener<AuthResult>() {  
 @Override  
 **public void** onComplete(@NonNull Task<AuthResult> task) {  
 **if** (task.isSuccessful()) {  
  
 saveUserInfo(**mAuth**.getUid(), **editTextName**.getText().toString(), **editTextPhone**.getText().toString());  
 savePref(SignupActivity.**this**, **"uid"**, **mAuth**.getUid());  
 Toast.*makeText*(SignupActivity.**this**, **"Sign up successful"**, Toast.***LENGTH\_SHORT***).show();  
 startActivity(**new** Intent(SignupActivity.**this**,CreateTodoActivity.**class**));  
 finish();  
 } **else** {  
  
 Toast.*makeText*(SignupActivity.**this**, **"Sign up failed: "** + task.getException().getMessage(), Toast.***LENGTH\_SHORT***).show();  
 }  
 }  
 });  
 }  
 }  
  
 **private void** saveUserInfo(String userId, String name, String phone) {  
  
 FirebaseDatabase database = FirebaseDatabase.*getInstance*();  
 DatabaseReference usersRef = database.getReference(**"users"**);  
  
  
 User user = **new** User(name, phone);  
  
  
 usersRef.child(userId).setValue(user);  
 }  
  
 **public void** savePref(Context context, String key, String value){  
 SharedPreferences.Editor editor = PreferenceManager.*getDefaultSharedPreferences*(context).edit();  
 editor.putString(key, value);  
 editor.apply();  
 }  
}

**package** com.example.android\_firebase\_todo\_app;  
  
**import** androidx.annotation.Nullable;  
**import** androidx.appcompat.app.AppCompatActivity;  
  
**import** android.content.Intent;  
**import** android.os.Bundle;  
**import** android.util.Log;  
**import** android.view.View;  
**import** android.widget.Toast;  
  
**import** com.firebase.ui.auth.AuthUI;  
**import** com.firebase.ui.auth.IdpResponse;  
**import** com.google.android.material.snackbar.Snackbar;  
**import** com.google.firebase.auth.FirebaseAuth;  
**import** com.google.firebase.auth.FirebaseUser;  
  
**import** java.util.Arrays;  
**import** java.util.List;  
  
**public class** SignUpLoginActivity **extends** AppCompatActivity {  
  
 **private static final** String ***TAG*** = **"Pruebas"**;  
 **int REQ\_CODE** = 200;  
  
 @Override  
 **protected void** onCreate(Bundle savedInstanceState) {  
 **super**.onCreate(savedInstanceState);  
 setContentView(R.layout.***activity\_sign\_up\_login***);  
  
 **if** (FirebaseAuth.*getInstance*().getCurrentUser() != **null**) {  
 Intent intent = **new** Intent(**this**, CreateTodoActivity.**class**);  
 finish();  
 }  
  
 handleSignUpLogin();  
 }  
  
 @Override  
 **protected void** onActivityResult(**int** requestCode, **int** resultCode, @Nullable Intent data) {  
 **super**.onActivityResult(requestCode, resultCode, data);  
  
 **if** (requestCode == **REQ\_CODE** && resultCode == ***RESULT\_OK***) {  
 FirebaseUser user = FirebaseAuth.*getInstance*().getCurrentUser();  
  
 **if** (user.getMetadata().getCreationTimestamp() == user.getMetadata().getLastSignInTimestamp()) {  
 Toast.*makeText*(**this**, **"¡Bienvenido "** + user.getDisplayName() +**"!"**, Toast.***LENGTH\_LONG***).show();  
 } **else** {  
 Toast.*makeText*(**this**, **"¡Bienvenido nuevamente "**+ user.getDisplayName() +**"!"**, Toast.***LENGTH\_LONG***).show();  
 }  
  
 Intent intent = **new** Intent(**this**, CreateTodoActivity.**class**);  
 startActivity(intent);  
 finish();  
  
 } **else** {  
 IdpResponse response = IdpResponse.*fromResultIntent*(data);  
 **if** (response == **null**) {  
 Toast.*makeText*(**this**, **"Inicio de sesión o registro cancelado"**, Toast.***LENGTH\_LONG***).show();  
 finish();  
 }  
 }  
 }  
  
 **public void** handleSignUpLogin() {  
 List<AuthUI.IdpConfig> provider = Arrays.*asList*(  
 **new** AuthUI.IdpConfig.EmailBuilder().build(),  
 **new** AuthUI.IdpConfig.GoogleBuilder().build()  
 );  
  
 Intent intent = AuthUI.*getInstance*().createSignInIntentBuilder().setAvailableProviders(provider).setLogo(R.drawable.***ic\_to\_do\_app***).setAlwaysShowSignInMethodScreen(**true**).build();  
  
 startActivityForResult(intent, **REQ\_CODE**);  
 }  
}

**package** com.example.android\_firebase\_todo\_app;  
  
**import** com.google.firebase.Timestamp;  
  
**public class** TODO {  
  
 **private** String **title**;  
 **private** String **content**;  
 **private boolean completed**;  
 **private** Timestamp **created**;  
 **private** Timestamp **updated**;  
 **private** String **user**;  
  
 **public** TODO(String title, String content, **boolean** completed, Timestamp created, Timestamp updated, String user) {  
 **this**.**title** = title;  
 **this**.**content** = content;  
 **this**.**completed** = completed;  
 **this**.**created** = created;  
 **this**.**updated** = updated;  
 **this**.**user** = user;  
 }  
  
 @Override  
 **public** String toString() {  
 **return "TODO{"** +  
 **"title='"** + **title** + **'\''** +  
 **", content='"** + **content** + **'\''** +  
 **", completed="** + **completed** +  
 **", created="** + **created** +  
 **", updated="** + **updated** +  
 **'}'**;  
 }  
  
 **public** TODO() {  
 }  
  
 **public** String getTitle() {  
 **return title**;  
 }  
  
 **public void** setTitle(String title) {  
 **this**.**title** = title;  
 }  
  
 **public** String getContent() {  
 **return content**;  
 }  
  
 **public void** setContent(String content) {  
 **this**.**content** = content;  
 }  
  
 **public boolean** getCompleted() {  
 **return completed**;  
 }  
  
 **public void** setCompleted(**boolean** completed) {  
 **this**.**completed** = completed;  
 }  
  
 **public** Timestamp getCreated() {  
 **return created**;  
 }  
  
 **public void** setCreated(Timestamp created) {  
 **this**.**created** = created;  
 }  
  
 **public** Timestamp getUpdated() {  
 **return updated**;  
 }  
  
 **public void** setUpdated(Timestamp updated) {  
 **this**.**updated** = updated;  
 }  
  
 **public** String getUser() { **return user**; }  
  
 **public void** setUser(String user) { **this**.**user** = user; }  
  
}

**package** com.example.android\_firebase\_todo\_app;  
  
**import** android.util.Log;  
**import** android.view.LayoutInflater;  
**import** android.view.View;  
**import** android.view.ViewGroup;  
**import** android.widget.CheckBox;  
**import** android.widget.CompoundButton;  
**import** android.widget.TextView;  
  
**import** androidx.annotation.NonNull;  
**import** androidx.recyclerview.widget.RecyclerView;  
  
**import** com.firebase.ui.firestore.FirestoreRecyclerAdapter;  
**import** com.firebase.ui.firestore.FirestoreRecyclerOptions;  
**import** com.google.android.material.snackbar.Snackbar;  
**import** com.google.firebase.firestore.DocumentSnapshot;  
**import** com.google.firebase.firestore.Query;  
  
**import** java.text.DateFormat;  
**import** java.text.SimpleDateFormat;  
**import** java.util.Date;  
**import** java.util.Locale;  
  
**public class** ToDoRecyclerAdapter **extends** FirestoreRecyclerAdapter<TODO, ToDoRecyclerAdapter.ToDoViewHolder> {  
  
  
 ToDoListener **toDoListener**;  
 **private** FirestoreRecyclerOptions<TODO> **options**;  
 **public** ToDoRecyclerAdapter(@NonNull FirestoreRecyclerOptions<TODO> options, ToDoListener toDoListener) {  
 **super**(options);  
 **this**.**toDoListener** = toDoListener;  
 **this**.**options** = options;  
 }  
  
 @Override  
 **protected void** onBindViewHolder(@NonNull ToDoViewHolder holder, **int** position, @NonNull TODO model) {  
 holder.**titleTextView**.setText(model.getTitle());  
 holder.**contentTextView**.setText(model.getContent());  
 holder.**fechaTextView**.setText(formatDate(model.getCreated().toDate()));  
 holder.**checkBox**.setChecked(model.getCompleted());  
 }  
  
 @NonNull  
 @Override  
 **public** ToDoViewHolder onCreateViewHolder(@NonNull ViewGroup parent, **int** viewType) {  
 LayoutInflater layoutInflater = LayoutInflater.*from*(parent.getContext());  
 View view = layoutInflater.inflate(R.layout.***todo\_list\_item***, parent, **false**);  
  
 **return new** ToDoViewHolder(view);  
 }  
  
 **public class** ToDoViewHolder **extends** RecyclerView.ViewHolder {  
  
 TextView **titleTextView**, **contentTextView**, **fechaTextView**;  
 CheckBox **checkBox**;  
  
 **public** ToDoViewHolder(@NonNull View itemView) {  
 **super**(itemView);  
  
 **titleTextView** = itemView.findViewById(R.id.***todoListTitle***);  
 **contentTextView** = itemView.findViewById(R.id.***todoListContent***);  
 **checkBox** = itemView.findViewById(R.id.***todoListCheckbox***);  
 **fechaTextView** = itemView.findViewById(R.id.***todoListFecha***);  
  
 **checkBox**.setOnCheckedChangeListener((buttonView, isChecked) -> {  
 DocumentSnapshot snapshot = getSnapshots().getSnapshot(getAdapterPosition());  
 TODO todo = getItem(getAdapterPosition());  
 **if** (todo.getCompleted() != isChecked) {  
 **toDoListener**.handleCompleted(isChecked, snapshot);  
 }  
 });  
 }  
  
 **public void** editTodo() {  
 **toDoListener**.handleEdit(getSnapshots().getSnapshot(getAdapterPosition()));  
 notifyItemChanged(getAdapterPosition());  
 }  
   
 **public void** deleteToDo() {  
 **toDoListener**.handleDelete(getSnapshots().getSnapshot(getAdapterPosition()));  
 }  
 }  
  
  
  
 **private** String formatDate(Date date) {  
 String pattern = **"dd/MM/yyyy K:mm a"**;  
 DateFormat dateFormat = **new** SimpleDateFormat(pattern, Locale.*getDefault*());  
  
 **return** dateFormat.format(date);  
 }  
  
 **interface** ToDoListener {  
 **void** handleCompleted(**boolean** completed, DocumentSnapshot snapshot);  
 **void** handleEdit(DocumentSnapshot snapshot);  
 **void** handleDelete(DocumentSnapshot snapshot);  
 }  
}

**package** com.example.android\_firebase\_todo\_app;  
  
**import** androidx.annotation.NonNull;  
**import** androidx.appcompat.app.AlertDialog;  
**import** androidx.appcompat.app.AppCompatActivity;  
**import** androidx.core.content.ContextCompat;  
**import** androidx.recyclerview.widget.DividerItemDecoration;  
**import** androidx.recyclerview.widget.ItemTouchHelper;  
**import** androidx.recyclerview.widget.RecyclerView;  
  
**import** android.content.Context;  
**import** android.content.DialogInterface;  
**import** android.content.Intent;  
**import** android.graphics.Canvas;  
**import** android.os.Bundle;  
**import** android.text.Editable;  
**import** android.text.InputType;  
**import** android.text.TextWatcher;  
**import** android.util.Log;  
**import** android.view.LayoutInflater;  
**import** android.view.View;  
**import** android.view.WindowManager;  
**import** android.view.inputmethod.InputMethodManager;  
**import** android.widget.AdapterView;  
**import** android.widget.ArrayAdapter;  
**import** android.widget.EditText;  
**import** android.widget.Spinner;  
**import** android.widget.Toast;  
  
**import** com.firebase.ui.firestore.FirestoreRecyclerOptions;  
**import** com.firebase.ui.firestore.ObservableSnapshotArray;  
**import** com.google.android.gms.tasks.OnCompleteListener;  
**import** com.google.android.gms.tasks.Task;  
**import** com.google.android.material.snackbar.Snackbar;  
**import** com.google.firebase.Timestamp;  
**import** com.google.firebase.auth.FirebaseAuth;  
**import** com.google.firebase.auth.FirebaseUser;  
**import** com.google.firebase.firestore.DocumentReference;  
**import** com.google.firebase.firestore.DocumentSnapshot;  
**import** com.google.firebase.firestore.FirebaseFirestore;  
**import** com.google.firebase.firestore.Query;  
  
**import** java.util.ArrayList;  
**import** java.util.List;  
**import** java.util.Locale;  
  
**import** it.xabaras.android.recyclerview.swipedecorator.RecyclerViewSwipeDecorator;  
  
**public class** VerTodosActivity **extends** AppCompatActivity **implements** ToDoRecyclerAdapter.ToDoListener, FirebaseAuth.AuthStateListener {  
  
 ToDoRecyclerAdapter **toDoRecyclerAdapter**;  
 RecyclerView **recyclerView**;  
 FirestoreRecyclerOptions<TODO> **options**;  
 Spinner **spinner**;  
  
 @Override  
 **protected void** onCreate(Bundle savedInstanceState) {  
 **super**.onCreate(savedInstanceState);  
 setContentView(R.layout.***activity\_ver\_todo***);  
 **spinner** = findViewById(R.id.***spinner***);  
 **recyclerView** = findViewById(R.id.***listaTodo***);  
  
 ArrayAdapter<CharSequence> adapter = ArrayAdapter.*createFromResource*(  
 **this**,  
 R.array.***spinner\_items***,  
 android.R.layout.***simple\_spinner\_item*** );  
  
 findViewById(R.id.***todoback***).setOnClickListener(**new** View.OnClickListener() {  
 @Override  
 **public void** onClick(View view) {  
 onBackPressed();  
 }  
 });  
  
 adapter.setDropDownViewResource(android.R.layout.***simple\_spinner\_dropdown\_item***);  
  
  
 **spinner**.setAdapter(adapter);  
  
  
 **spinner**.setOnItemSelectedListener(**new** AdapterView.OnItemSelectedListener() {  
 @Override  
 **public void** onItemSelected(AdapterView<?> parentView, View selectedItemView, **int** position, **long** id) {  
  
 String selectedItem = parentView.getItemAtPosition(position).toString();  
 Toast.*makeText*(VerTodosActivity.**this**, **"Selected: "** + selectedItem, Toast.***LENGTH\_SHORT***).show();  
 }  
  
 @Override  
 **public void** onNothingSelected(AdapterView<?> parentView) {  
  
 }  
 });  
  
 **recyclerView**.addItemDecoration(**new** DividerItemDecoration(**this**, DividerItemDecoration.***VERTICAL***));  
 initRecycleTodoView(FirebaseAuth.*getInstance*().getCurrentUser());  
 EditText searchEditText = findViewById(R.id.***searchEditText***);  
 searchEditText.addTextChangedListener(**new** TextWatcher() {  
 @Override  
 **public void** beforeTextChanged(CharSequence charSequence, **int** i, **int** i1, **int** i2) {  
 }  
  
 @Override  
 **public void** onTextChanged(CharSequence charSequence, **int** i, **int** i1, **int** i2) {  
 }  
  
 @Override  
 **public void** afterTextChanged(Editable editable) {  
 String searchTerm = editable.toString().trim();  
 initRecycleTodoView(FirebaseAuth.*getInstance*().getCurrentUser(), searchTerm);  
 **if** (searchTerm.isEmpty()) {  
  
 initRecycleTodoView(FirebaseAuth.*getInstance*().getCurrentUser());  
 }  
 }  
 });  
 }  
  
 @Override  
 **protected void** onStart() {  
 **super**.onStart();  
 FirebaseAuth.*getInstance*().addAuthStateListener(**this**);  
 **toDoRecyclerAdapter**.startListening();  
 }  
  
 @Override  
 **protected void** onStop() {  
 **super**.onStop();  
 FirebaseAuth.*getInstance*().removeAuthStateListener(**this**);  
 **toDoRecyclerAdapter**.stopListening();  
 }  
  
 **private void** initRecycleTodoView(FirebaseUser user) {  
 Query query = FirebaseFirestore.*getInstance*().collection(**"todos"**)  
 .whereEqualTo(**"user"**, user.getUid())  
 .orderBy(**"completed"**, Query.Direction.***ASCENDING***)  
 .orderBy(**"created"**, Query.Direction.***DESCENDING***);  
  
 **options** = **new** FirestoreRecyclerOptions.Builder<TODO>().setQuery(query, TODO.**class**).build();  
 **toDoRecyclerAdapter** = **new** ToDoRecyclerAdapter(**options**, **this**);  
  
 **recyclerView**.setAdapter(**toDoRecyclerAdapter**);  
  
 ItemTouchHelper itemTouchHelper = **new** ItemTouchHelper(**simpleCallback**);  
 itemTouchHelper.attachToRecyclerView(**recyclerView**);  
 }  
  
 **private void** initRecycleTodoView(FirebaseUser user, String searchTerm) {  
 Query query = FirebaseFirestore.*getInstance*().collection(**"todos"**)  
 .whereEqualTo(**"user"**, user.getUid())  
 .orderBy(**"completed"**, Query.Direction.***ASCENDING***)  
 .orderBy(**"created"**, Query.Direction.***DESCENDING***);  
  
 **if** (searchTerm != **null** && !searchTerm.isEmpty()) {  
 **if** (**spinner**.getSelectedItem().equals(**"status"**)) {  
 query = query.whereEqualTo(**"title"**, searchTerm);  
 } **else** {  
 query = query.whereEqualTo(**"completed"**, **true**);  
 }  
 }  
  
 **options** = **new** FirestoreRecyclerOptions.Builder<TODO>().setQuery(query, TODO.**class**).build();  
 **toDoRecyclerAdapter**.updateOptions(**options**);  
 }  
  
 ItemTouchHelper.SimpleCallback **simpleCallback** = **new** ItemTouchHelper.SimpleCallback(0, ItemTouchHelper.***LEFT*** | ItemTouchHelper.***RIGHT***) {  
 @Override  
 **public boolean** onMove(@NonNull RecyclerView recyclerView, @NonNull RecyclerView.ViewHolder viewHolder, @NonNull RecyclerView.ViewHolder target) {  
 **return false**;  
 }  
 @Override  
 **public void** onSwiped(@NonNull RecyclerView.ViewHolder viewHolder, **int** direction) {  
 ToDoRecyclerAdapter.ToDoViewHolder toDoViewHolder = (ToDoRecyclerAdapter.ToDoViewHolder) viewHolder;  
  
 **if** (direction == ItemTouchHelper.***LEFT***) {  
 toDoViewHolder.deleteToDo();  
 }  
 **if** (direction == ItemTouchHelper.***RIGHT***) {  
 toDoViewHolder.editTodo();  
 }  
 }  
 @Override  
 **public void** onChildDraw(@NonNull Canvas c, @NonNull RecyclerView recyclerView, @NonNull RecyclerView.ViewHolder viewHolder, **float** dX, **float** dY, **int** actionState, **boolean** isCurrentlyActive) {  
 **new** RecyclerViewSwipeDecorator.Builder(c, recyclerView, viewHolder, dX, dY, actionState, isCurrentlyActive)  
 .addSwipeRightBackgroundColor(ContextCompat.*getColor*(VerTodosActivity.**this**, R.color.***amberEdit***))  
 .addSwipeRightActionIcon(R.drawable.***ic\_baseline\_edit\_24***)  
 .addSwipeLeftBackgroundColor(ContextCompat.*getColor*(VerTodosActivity.**this**, R.color.***redDelete***))  
 .addSwipeLeftActionIcon(R.drawable.***ic\_baseline\_delete\_24***)  
 .create()  
 .decorate();  
  
 **super**.onChildDraw(c, recyclerView, viewHolder, dX, dY, actionState, isCurrentlyActive);  
 }  
 };  
  
 @Override  
 **public void** handleCompleted(**boolean** completed, DocumentSnapshot snapshot) {  
 snapshot.getReference().update(**"completed"**, completed).addOnCompleteListener(**new** OnCompleteListener<Void>() {  
 @Override  
 **public void** onComplete(@NonNull Task<Void> task) {  
 **if** (task.isSuccessful()) {  
 Snackbar.*make*(**recyclerView**, **"To Do updated!"**, Snackbar.***LENGTH\_LONG***).show();  
 } **else** {  
 Snackbar.*make*(**recyclerView**, **"Problem updating the To-Do!"**, Snackbar.***LENGTH\_LONG***).show();  
 }  
 }  
 });  
 }  
  
 @Override  
 **public void** handleEdit(DocumentSnapshot snapshot) {  
  
 TODO todo = snapshot.toObject(TODO.**class**);  
  
 EditText titleEdit;  
 EditText contentEdit;  
  
 AlertDialog.Builder builder = **new** AlertDialog.Builder(**this**);  
 LayoutInflater inflater = **this**.getLayoutInflater();  
 View dialogView = inflater.inflate(R.layout.***edit\_todo\_dialog***, **null**);  
 builder.setView(dialogView);  
  
 titleEdit = dialogView.findViewById(R.id.***editTodoTitleDialog***);  
 titleEdit.setText(todo.getTitle());  
 titleEdit.setSelection(todo.getTitle().length());  
  
 contentEdit = dialogView.findViewById(R.id.***editTodoContentDialog***);  
 contentEdit.setText(todo.getContent());  
 contentEdit.setSelection(todo.getContent().length());  
  
 builder.setPositiveButton(**"Save"**, (dialog, which) -> {  
  
 todo.setTitle(titleEdit.getText().toString());  
 todo.setContent(contentEdit.getText().toString());  
 todo.setUpdated(Timestamp.*now*());  
 snapshot.getReference().set(todo).addOnCompleteListener(task -> {  
 **if** (task.isSuccessful()) {  
 Snackbar.*make*(**recyclerView**, **"To-Do successfully edited!"**, Snackbar.***LENGTH\_LONG***).show();  
 } **else** {  
 Snackbar.*make*(**recyclerView**, **"There was a problem editing the TO-DO!"**, Snackbar.***LENGTH\_LONG***).show();  
 }  
 });  
 }).setNegativeButton( **"Cancel"** , **null**);  
  
 builder.show();  
 }  
  
 @Override  
 **public void** handleDelete(DocumentSnapshot snapshot) {  
  
 DocumentReference documentReference = snapshot.getReference();  
 TODO todo = snapshot.toObject(TODO.**class**);  
 snapshot.getReference().delete().addOnCompleteListener(task -> {  
 **if** (task.isSuccessful()) {  
 Snackbar.*make*(**recyclerView**, **"To-Do successfully deleted!"**, Snackbar.***LENGTH\_LONG***).setAction( **"Undo"**, **new** View.OnClickListener() {  
 @Override  
 **public void** onClick(View v) {  
 documentReference.set(todo);  
 }  
 }).show();  
 } **else** {  
 Snackbar.*make*(**recyclerView**, **"There was a problem deleting the TO-DO!"** , Snackbar.***LENGTH\_LONG***).show();  
 }  
 });  
 }  
  
 @Override  
 **public void** onAuthStateChanged(@NonNull FirebaseAuth firebaseAuth) {  
 **if** (FirebaseAuth.*getInstance*().getCurrentUser() == **null**) {  
 startSignUpLoginActivity();  
 **return**;  
 }  
 }  
  
 **public void** startSignUpLoginActivity() {  
 Intent intent = **new** Intent(**this**, SignUpLoginActivity.**class**);  
 startActivity(intent);  
 finish();  
 }  
}

**package** com.example.android\_firebase\_todo\_app;  
  
**public class** User {  
 **public** String **name**;  
 **public** String **phone**;  
  
 **public** User() {  
 }  
  
 **public** User(String name, String phone) {  
 **this**.**name** = name;  
 **this**.**phone** = phone;  
 }  
}