U18CO018
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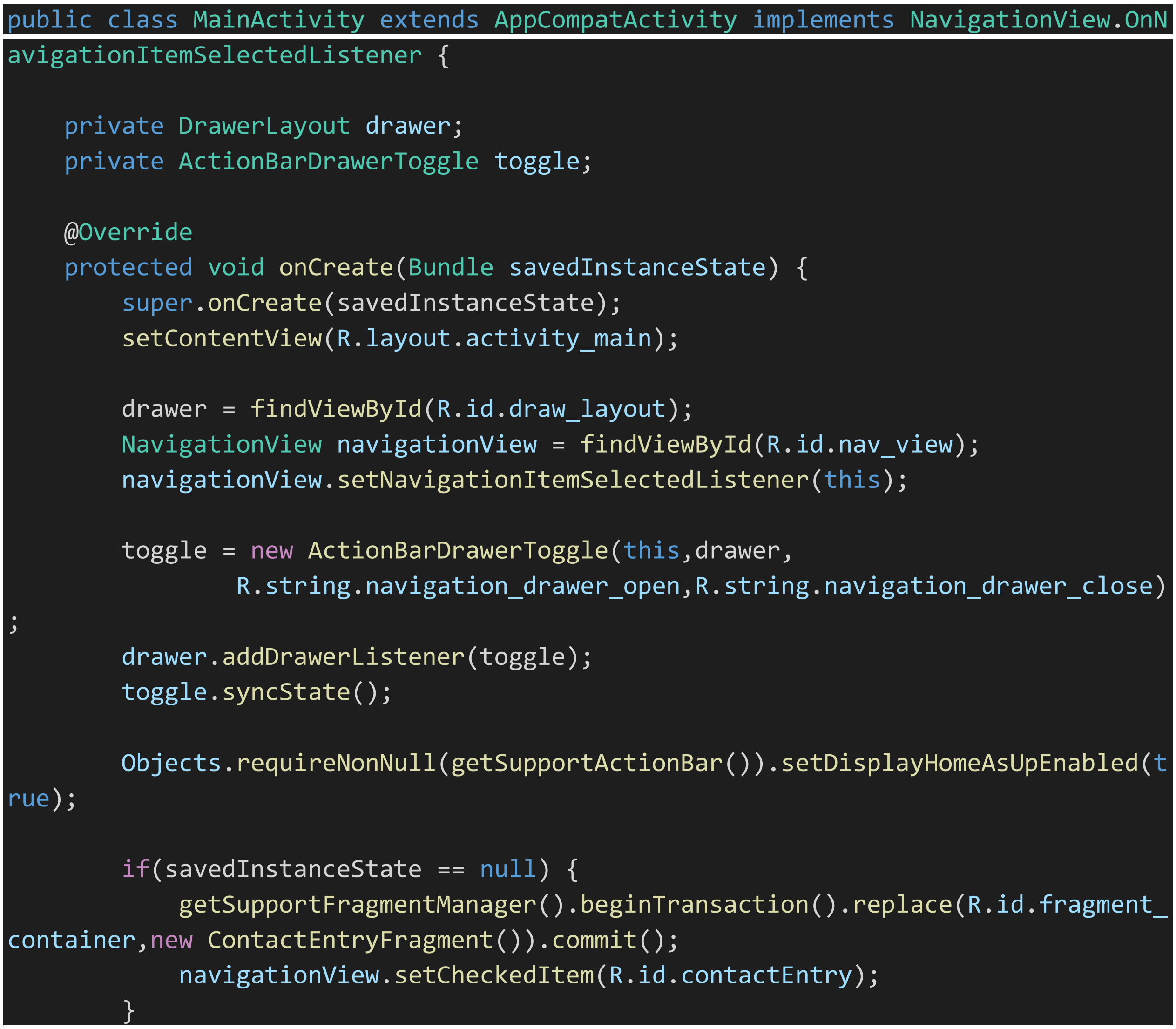
Assignment – 8 (ST)

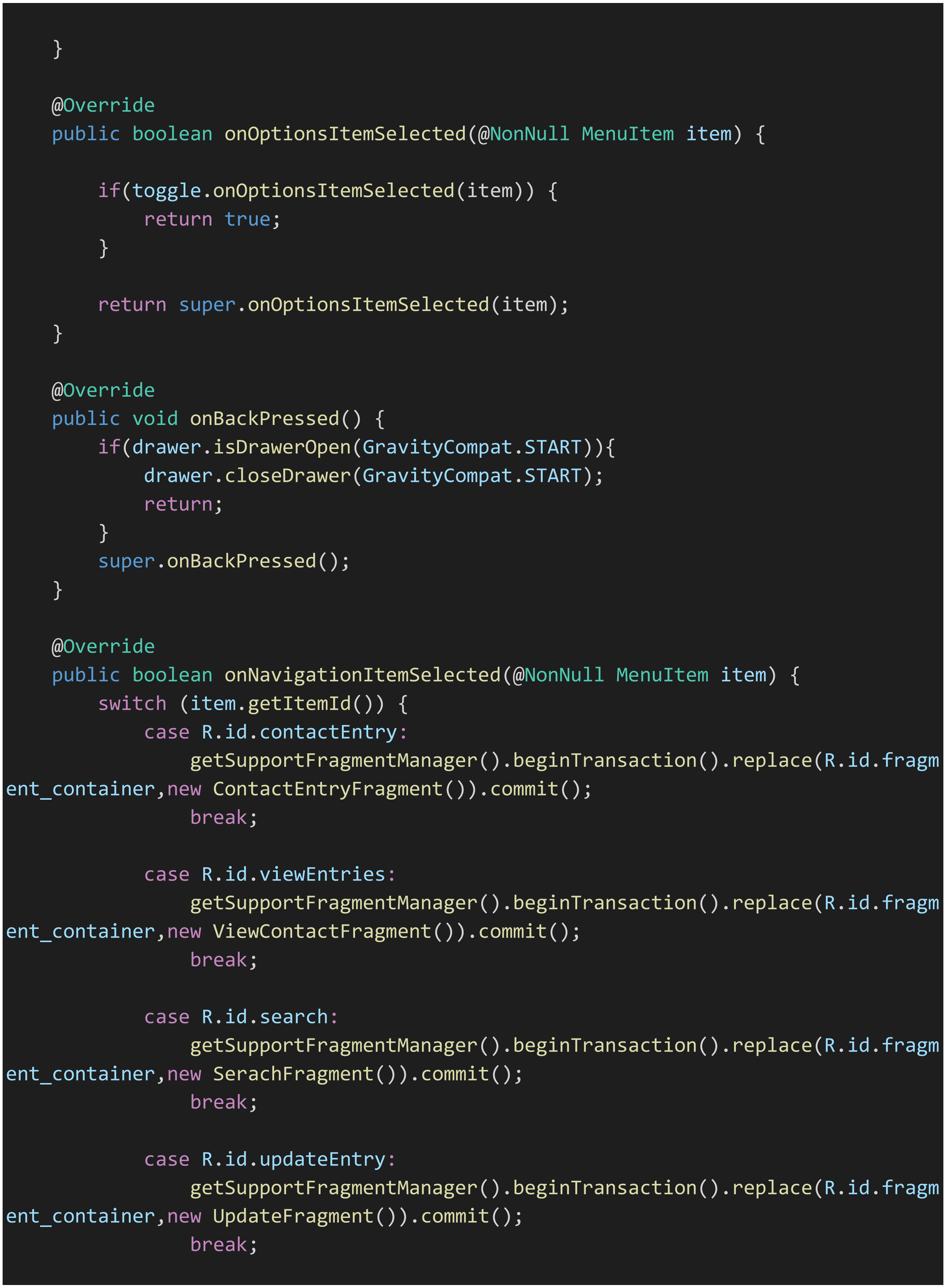
Question: Assume you are a software developer and your company wants you to develop an android app which stores contact information (such as Name, Mobile No, Email, Address etc.) in SQLite database and provides following options to its users.

(a) Enter a new contact
(b) Search for an existing contact
(c) Delete an existing contact
(d) Update/Edit an existing contact

MainActivity.java



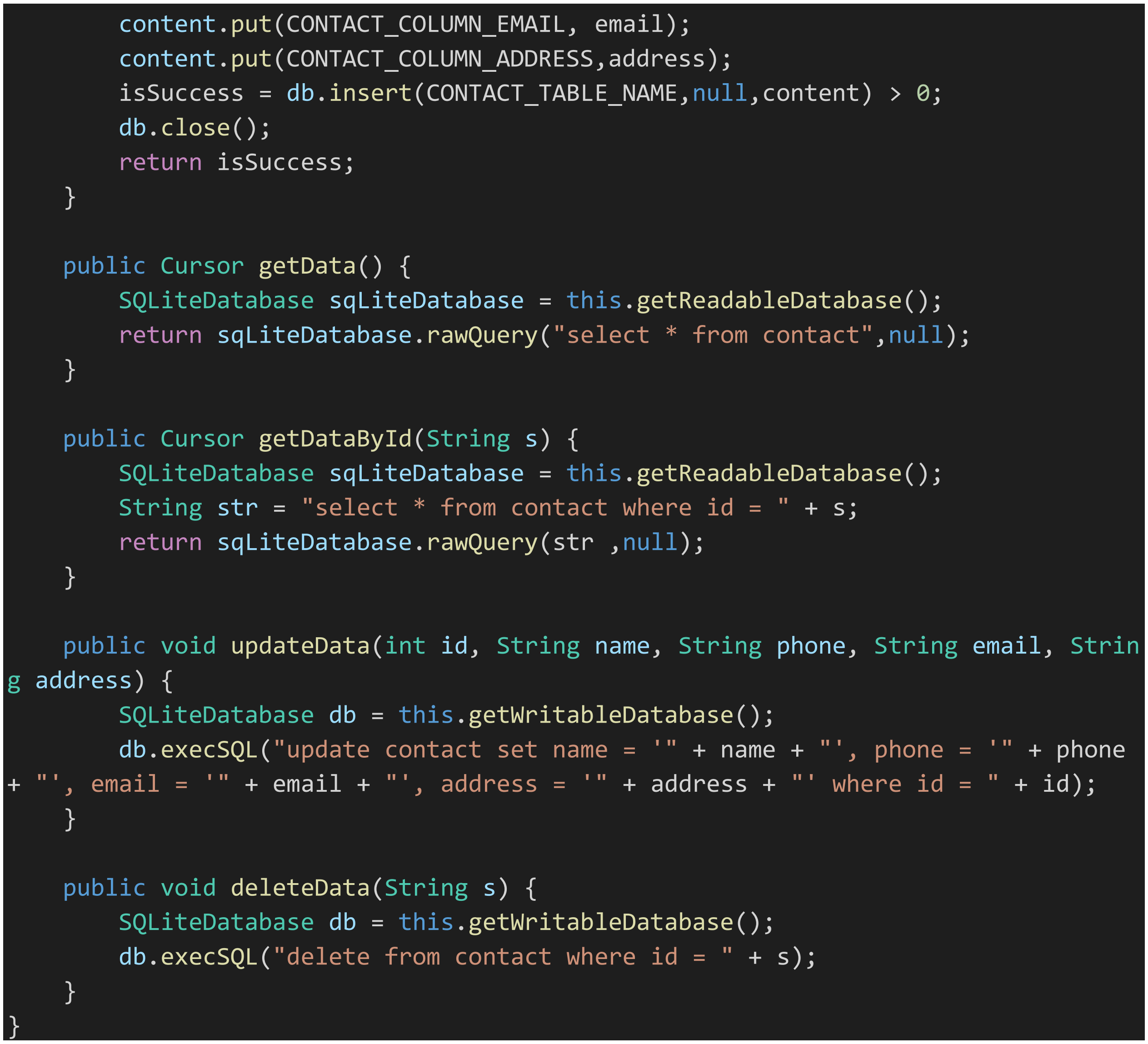
```
public class MainActivity extends AppCompatActivity implements NavigationView.OnN
avigationItemSelectedListener {

    private DrawerLayout drawer;
    private ActionBarDrawerToggle toggle;

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);

        drawer = findViewById(R.id.draw_layout);
        NavigationView navigationView = findViewById(R.id.nav_view);
        navigationView.setNavigationItemSelectedListener(this);

        toggle = new ActionBarDrawerToggle(this,drawer,
                R.string.navigation_drawer_open,R.string.navigation_drawer_close)
;
        drawer.addDrawerListener(toggle);
        toggle.syncState();

        Objects.requireNonNull(getSupportActionBar()).setDisplayHomeAsUpEnabled(t
rue);

        if(savedInstanceState == null) {
            getSupportFragmentManager().beginTransaction().replace(R.id.fragment_
container,new ContactEntryFragment()).commit();
            navigationView.setCheckedItem(R.id.contactEntry);
        }
```



```
    }

    @Override
    public boolean onOptionsItemSelected(@NonNull MenuItem item) {

        if(toggle.onOptionsItemSelected(item)) {
            return true;
        }

        return super.onOptionsItemSelected(item);
    }

    @Override
    public void onBackPressed() {
        if(drawer.isDrawerOpen(GravityCompat.START)){
            drawer.closeDrawer(GravityCompat.START);
            return;
        }
        super.onBackPressed();
    }

    @Override
    public boolean onNavigationItemSelected(@NonNull MenuItem item) {
        switch (item.getItemId()) {
            case R.id.contactEntry:
                getSupportFragmentManager().beginTransaction().replace(R.id.fragment_container,new ContactEntryFragment()).commit();
                break;

            case R.id.viewEntries:
                getSupportFragmentManager().beginTransaction().replace(R.id.fragment_container,new ViewContactFragment()).commit();
                break;

            case R.id.search:
                getSupportFragmentManager().beginTransaction().replace(R.id.fragment_container,new SerachFragment()).commit();
                break;

            case R.id.updateEntry:
                getSupportFragmentManager().beginTransaction().replace(R.id.fragment_container,new UpdateFragment()).commit();
                break;
            case R.id.deleteEntry:
                getSupportFragmentManager().beginTransaction().replace(R.id.fragm
ent_container,new DeleteFragment()).commit();
                break;
        }
        drawer.closeDrawer(GravityCompat.START);
        return true;
    }
}
```

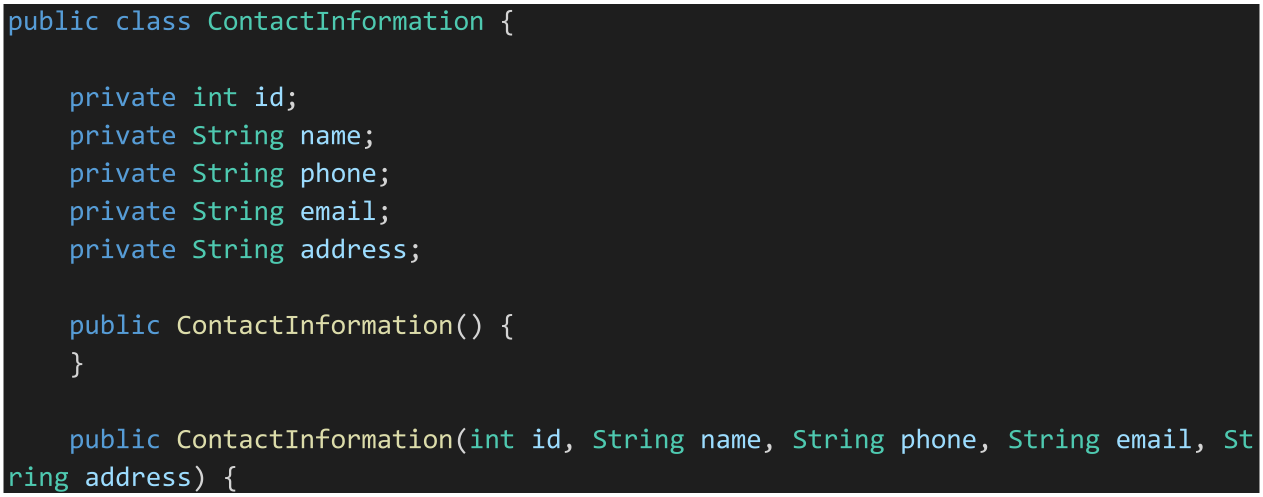
DatabaseHandler.java

```
public class DatabaseHandler extends SQLiteOpenHelper {

    public static final String DATABASE_NAME = "ContactDatabase.db";
    public static final String CONTACT_TABLE_NAME = "contact";
    public static final String CONTACT_COLUMN_ID = "id";
    public static final String CONTACT_COLUMN_NAME = "name";
    public static final String CONTACT_COLUMN_PHONE = "phone";
    public static final String CONTACT_COLUMN_EMAIL = "email";
    public static final String CONTACT_COLUMN_ADDRESS = "address";

    public DatabaseHandler(@Nullable Context context) {
        super(context,DATABASE_NAME,null,1);
    }

    @Override
    public void onCreate(SQLiteDatabase sqLiteDatabase) {
        sqLiteDatabase.execSQL("Create table contact ( id INTEGER PRIMARY KEY AUT
OINCREMENT, name text not null, phone text not null ,email text not null ,address
 text not null);");
    }

    @Override
    public void onUpgrade(SQLiteDatabase sqLiteDatabase, int i, int i1) {
        sqLiteDatabase.execSQL("DROP TABLE IF EXISTS " + CONTACT_TABLE_NAME);
        onCreate(sqLiteDatabase);
    }

    public boolean insertData (String name, String phone, String email, String ad
dress) {
        boolean isSuccess = false;
        SQLiteDatabase db = this.getWritableDatabase();
        ContentValues content = new ContentValues();
        content.put(CONTACT_COLUMN_NAME, name);
        content.put(CONTACT_COLUMN_PHONE,phone);
```

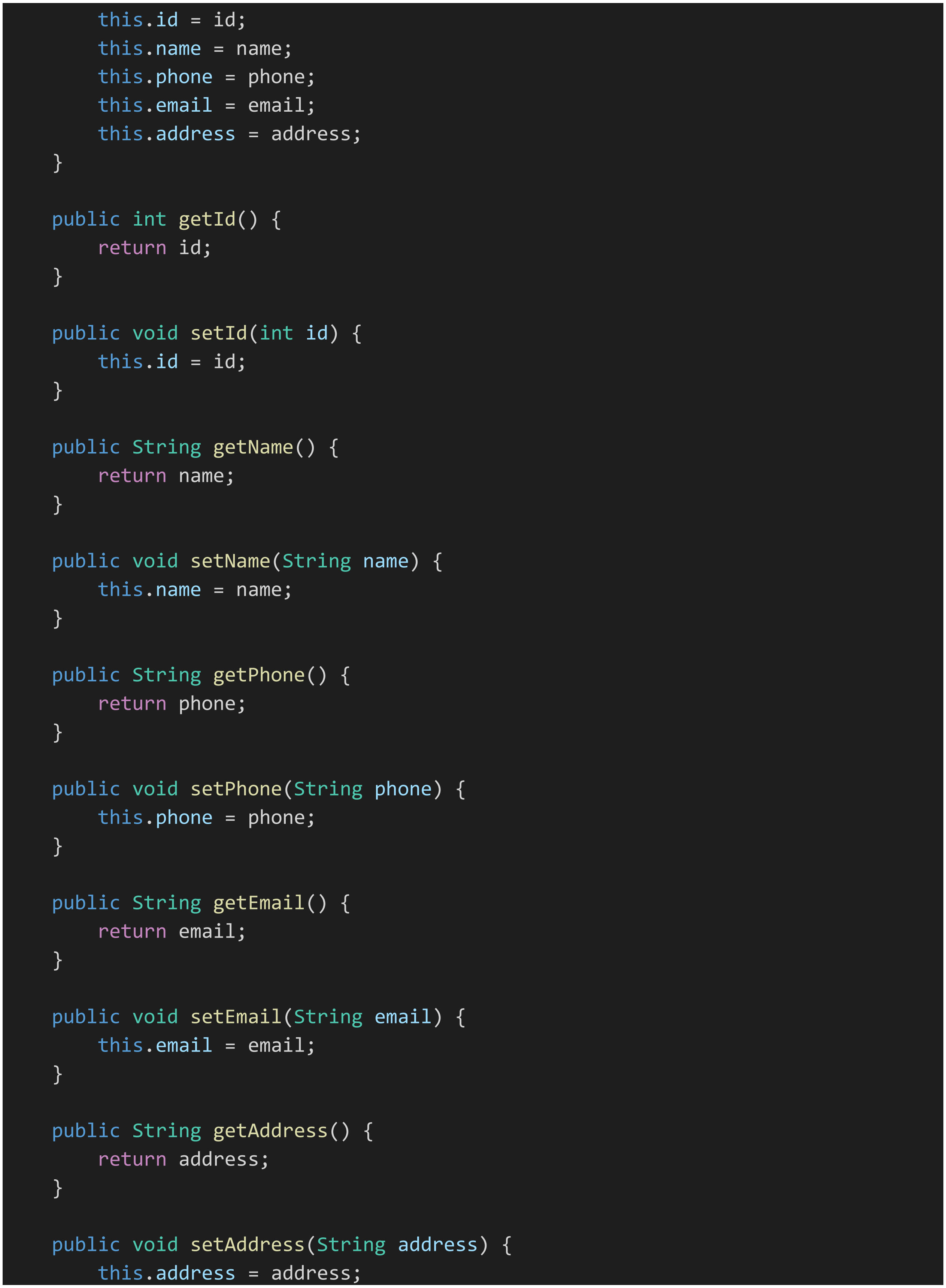


```
        content.put(CONTACT_COLUMN_EMAIL, email);
        content.put(CONTACT_COLUMN_ADDRESS,address);
        isSuccess = db.insert(CONTACT_TABLE_NAME,null,content) > 0;
        db.close();
        return isSuccess;
    }

    public Cursor getData() {
        SQLiteDatabase sqLiteDatabase = this.getReadableDatabase();
        return sqLiteDatabase.rawQuery("select * from contact",null);
    }

    public Cursor getDataById(String s) {
        SQLiteDatabase sqLiteDatabase = this.getReadableDatabase();
        String str = "select * from contact where id = " + s;
        return sqLiteDatabase.rawQuery(str ,null);
    }

    public void updateData(int id, String name, String phone, String email, Strin
g address) {
        SQLiteDatabase db = this.getWritableDatabase();
        db.execSQL("update contact set name = '" + name + "', phone = '" + phone
+ "', email = '" + email + "', address = '" + address + "' where id = " + id);
    }

    public void deleteData(String s) {
        SQLiteDatabase db = this.getWritableDatabase();
        db.execSQL("delete from contact where id = " + s);
    }
}
```

ContactInformation.java



```
public class ContactInformation {

    private int id;
    private String name;
    private String phone;
    private String email;
    private String address;

    public ContactInformation() {
    }

    public ContactInformation(int id, String name, String phone, String email, St
ring address) {
```



```
        this.id = id;
        this.name = name;
        this.phone = phone;
        this.email = email;
        this.address = address;
    }

    public int getId() {
        return id;
    }

    public void setId(int id) {
        this.id = id;
    }

    public String getName() {
        return name;
    }

    public void setName(String name) {
        this.name = name;
    }

    public String getPhone() {
        return phone;
    }

    public void setPhone(String phone) {
        this.phone = phone;
    }

    public String getEmail() {
        return email;
    }

    public void setEmail(String email) {
        this.email = email;
    }

    public String getAddress() {
        return address;
    }

    public void setAddress(String address) {
        this.address = address;
    }
}
```

ContactEntryFragment.java

```
public class ContactEntryFragment extends Fragment {

    @Override
    public View onCreateView(LayoutInflater inflater, ViewGroup container,
                             Bundle savedInstanceState) {
        return inflater.inflate(R.layout.fragment_contact_entry, container, false
);
    }

    private EditText nameEt, phoneEt, emailEt, addressEt;
    private Button submitBtn;

    @Override
    public void onViewCreated(@NonNull View view, @Nullable Bundle savedInstanceS
tate) {
        super.onViewCreated(view, savedInstanceState);

        nameEt = view.findViewById(R.id.nameEt);
        phoneEt = view.findViewById(R.id.phoneEt);
        emailEt = view.findViewById(R.id.emailEt);
        addressEt = view.findViewById(R.id.addressEt);
        submitBtn = view.findViewById(R.id.submitBtn);

        submitBtn.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View view) {
                String phone = phoneEt.getText().toString().trim();
                String name = nameEt.getText().toString().trim();
                String email = emailEt.getText().toString().trim();
                String address = addressEt.getText().toString().trim();

                if (phone.isEmpty() || name.isEmpty() || email.isEmpty() || addre
ss.isEmpty()) {
                    Toast.makeText(view.getContext(), "All Fields are requierd",
Toast.LENGTH_LONG).show();
                } else {
                    try {
                        DatabaseHandler db = new DatabaseHandler(view.getContext(
));
                        boolean flag = db.insertData(name, phone, email, address)
;
```

```
                        if (flag) {
                            Toast.makeText(view.getContext(), "Successful", Toast
.LENGTH_SHORT).show();
                        } else {
                            Toast.makeText(view.getContext(), "Something Went Wro
ng!", Toast.LENGTH_SHORT).show();
                        }
                        nameEt.setText("");
                        phoneEt.setText("");
                        emailEt.setText("");
                        addressEt.setText("");
                    } catch (Exception e) {
                    }
                }
            }
        });
    }
}
```

DeleteFragment.java

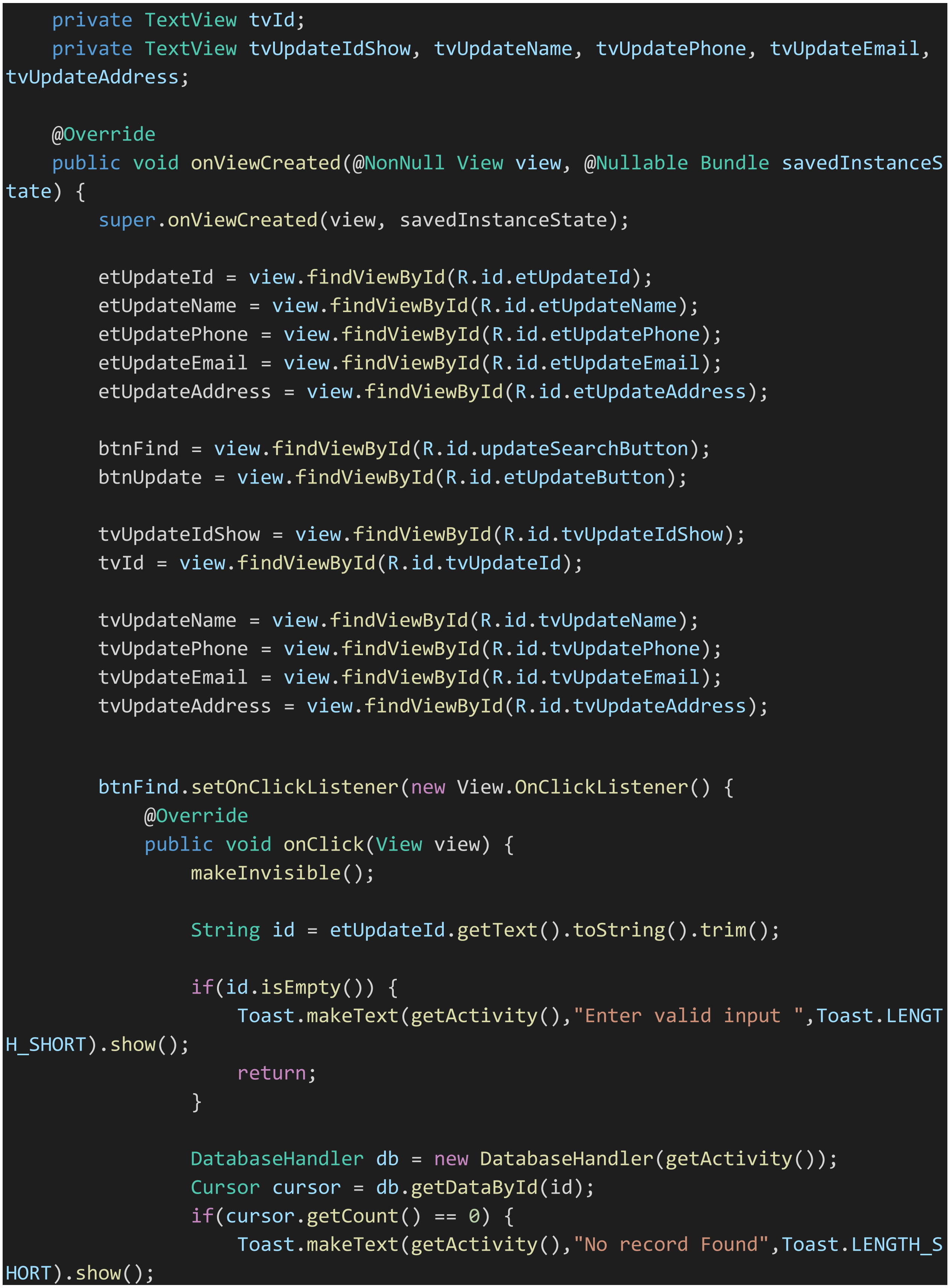
```
public class DeleteFragment extends Fragment {

    @Override
    public View onCreateView(LayoutInflater inflater, ViewGroup container,
                             Bundle savedInstanceState) {
        // Inflate the layout for this fragment
        return inflater.inflate(R.layout.fragment_delete, container, false);
    }

    private EditText etDeleteId;
    private RecyclerView recyclerViewDelete;
    private Button btnDeleteFind,btnDeleteDelete;
    private String id;

    @Override
    public void onViewCreated(@NonNull View view, @Nullable Bundle savedInstanceS
tate) {
        super.onViewCreated(view, savedInstanceState);

        etDeleteId = view.findViewById(R.id.etDeleteId);
        recyclerViewDelete = view.findViewById(R.id.deleteRecyclerList);
        btnDeleteDelete = view.findViewById(R.id.deleteButton);
        btnDeleteFind = view.findViewById(R.id.deleteSearchButton);

        btnDeleteFind.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View view) {
                id = etDeleteId.getText().toString().trim();

                recyclerViewDelete.setVisibility(View.INVISIBLE);
                btnDeleteDelete.setVisibility(View.INVISIBLE);

                if(id.isEmpty()) {
                    Toast.makeText(getActivity(),"Enter valid input ",Toast.LENGT
H_SHORT).show();
                    recyclerViewDelete.setAdapter(null);
                    return;
                }

                DatabaseHandler db = new DatabaseHandler(getActivity());
                Cursor cursor = db.getDataById(id);
                if(cursor.getCount() == 0) {
                    Toast.makeText(getActivity(),"No record Found",Toast.LENGTH_S
HORT).show();
                    recyclerViewDelete.setAdapter(null);
                } else {

                    ArrayList<ContactInformation> arrayList = new ArrayList<>();
                    while (cursor.moveToNext()) {
                        arrayList.add(new ContactInformation(Integer.parseInt(cur
sor.getString(0)), cursor.getString(1), cursor.getString(2), cursor.getString(3),
                                cursor.getString(4)));
                    }
                    recyclerViewDelete.setAdapter(new RecyclerViewAdapter(arrayLi
st,getActivity()));
                    recyclerViewDelete.setLayoutManager(new LinearLayoutManager(g
etActivity()));

                    recyclerViewDelete.setVisibility(View.VISIBLE);
                    btnDeleteDelete.setVisibility(View.VISIBLE);
                }
                etDeleteId.setText("");
            }
        });

        btnDeleteDelete.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View view) {
                DatabaseHandler db = new DatabaseHandler(getActivity());
                try {
                    db.deleteData(id);
                    Toast.makeText(getActivity(),"Deleted Successful ",Toast.LENG
TH_SHORT).show();
                } catch (Exception e) {
                    Toast.makeText(getActivity(),e.getMessage(),Toast.LENGTH_SHOR
T).show();
                }

                recyclerViewDelete.setVisibility(View.INVISIBLE);
                btnDeleteDelete.setVisibility(View.INVISIBLE);
            }
        });

    }
}
```

SearchFragment.java

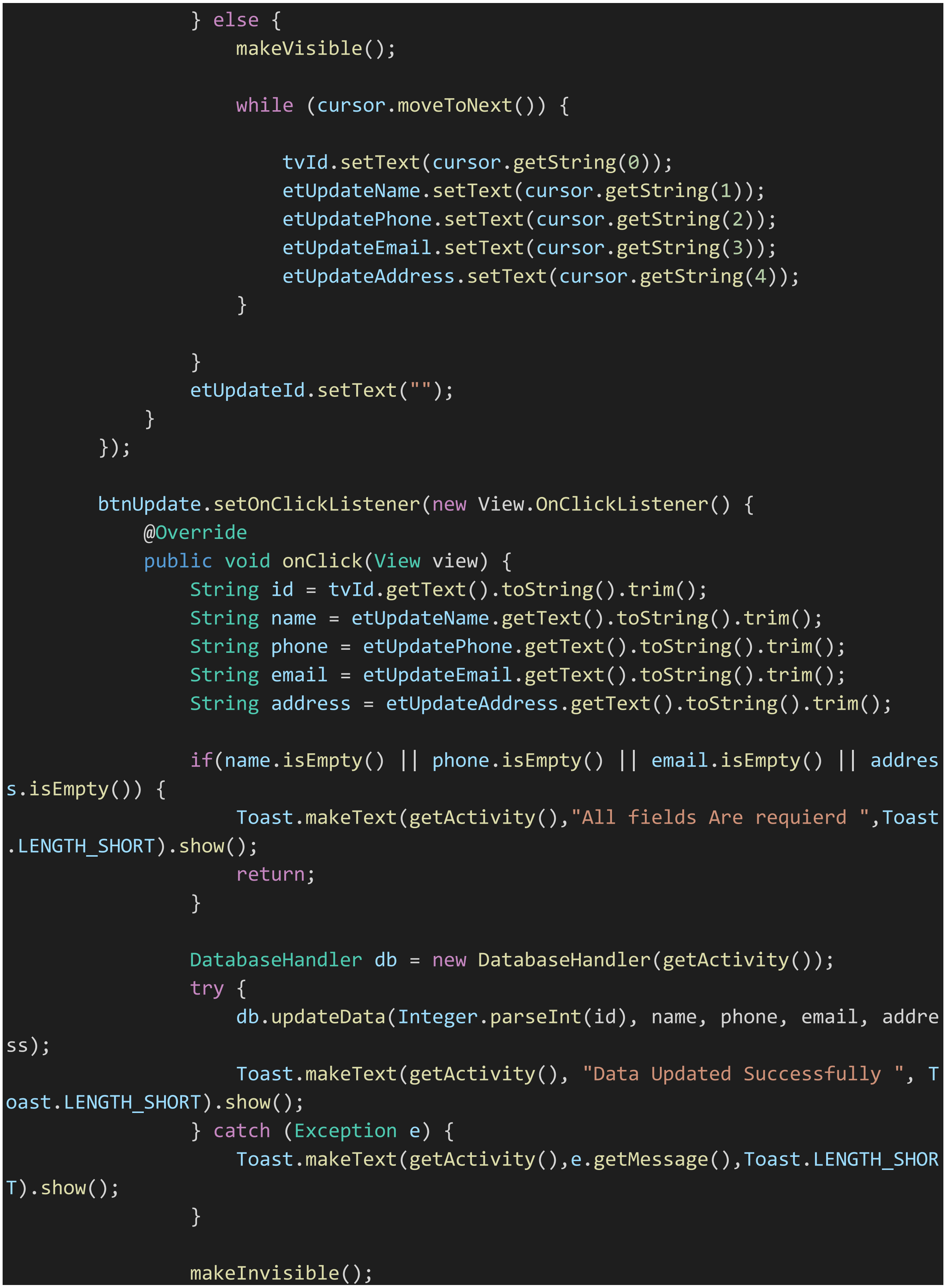
```
public class SerachFragment extends Fragment {

    @Override
    public View onCreateView(LayoutInflater inflater, ViewGroup container,
                             Bundle savedInstanceState) {
        // Inflate the layout for this fragment
        return inflater.inflate(R.layout.fragment_serach, container, false);
    }

    private EditText etQuery;
    private Button submitSearch;
    private RecyclerView listViewId;

    @Override
    public void onViewCreated(@NonNull View view, @Nullable Bundle savedInstanceS
tate) {
        super.onViewCreated(view, savedInstanceState);

        etQuery = view.findViewById(R.id.etQuery);
        submitSearch = view.findViewById(R.id.searchButton);
        listViewId = view.findViewById(R.id.listViewId);

        submitSearch.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View view) {
                String id = etQuery.getText().toString().trim();
                if (id.isEmpty()) {
                    Toast.makeText(getActivity(), "Enter valid input ", Toast.LENGTH_SHORT).show();
                    listViewId.setAdapter(null);
                    return;
                }

                DatabaseHandler db = new DatabaseHandler(getActivity());
                Cursor cursor = db.getDataById(id);
                if (cursor.getCount() == 0) {
                    Toast.makeText(getActivity(), "No record Found", Toast.LENGTH_SHORT).show();
                    listViewId.setAdapter(null);
                } else {

                    ArrayList<ContactInformation> arrayList = new ArrayList<>();
                    while (cursor.moveToNext()) {
                        arrayList.add(new ContactInformation(Integer.parseInt(cursor.getString(0)), cursor.getString(1), cursor.getString(2), cursor.getString(3),
                                cursor.getString(4)));
                    }
                    listViewId.setAdapter(new RecyclerViewAdapter(arrayList, getActivity()));
                    listViewId.setLayoutManager(new LinearLayoutManager(getActivity()));
                }
                etQuery.setText("");
            }
        });
    }
}
```

UpdateFragment.java

```
public class UpdateFragment extends Fragment {

    @Override
    public View onCreateView(LayoutInflater inflater, ViewGroup container,
                             Bundle savedInstanceState) {
        // Inflate the layout for this fragment
        return inflater.inflate(R.layout.fragment_update, container, false);
    }

    private EditText etUpdateId, etUpdateName,etUpdatePhone,etUpdateEmail, etUpdateAddress;
    private Button btnFind,btnUpdate;
```



```
    private TextView tvId;
    private TextView tvUpdateIdShow, tvUpdateName, tvUpdatePhone, tvUpdateEmail, tvUpdateAddress;

    @Override
    public void onViewCreated(@NonNull View view, @Nullable Bundle savedInstanceState) {
        super.onViewCreated(view, savedInstanceState);

        etUpdateId = view.findViewById(R.id.etUpdateId);
        etUpdateName = view.findViewById(R.id.etUpdateName);
        etUpdatePhone = view.findViewById(R.id.etUpdatePhone);
        etUpdateEmail = view.findViewById(R.id.etUpdateEmail);
        etUpdateAddress = view.findViewById(R.id.etUpdateAddress);

        btnFind = view.findViewById(R.id.updateSearchButton);
        btnUpdate = view.findViewById(R.id.etUpdateButton);

        tvUpdateIdShow = view.findViewById(R.id.tvUpdateIdShow);
        tvId = view.findViewById(R.id.tvUpdateId);

        tvUpdateName = view.findViewById(R.id.tvUpdateName);
        tvUpdatePhone = view.findViewById(R.id.tvUpdatePhone);
        tvUpdateEmail = view.findViewById(R.id.tvUpdateEmail);
        tvUpdateAddress = view.findViewById(R.id.tvUpdateAddress);


        btnFind.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View view) {
                makeInvisible();

                String id = etUpdateId.getText().toString().trim();

                if(id.isEmpty()) {
                    Toast.makeText(getActivity(),"Enter valid input ",Toast.LENGTH_SHORT).show();
                    return;
                }

                DatabaseHandler db = new DatabaseHandler(getActivity());
                Cursor cursor = db.getDataById(id);
                if(cursor.getCount() == 0) {
                    Toast.makeText(getActivity(),"No record Found",Toast.LENGTH_SHORT).show();
```



```
                } else {
                    makeVisible();

                    while (cursor.moveToNext()) {

                        tvId.setText(cursor.getString(0));
                        etUpdateName.setText(cursor.getString(1));
                        etUpdatePhone.setText(cursor.getString(2));
                        etUpdateEmail.setText(cursor.getString(3));
                        etUpdateAddress.setText(cursor.getString(4));
                    }

                }
                etUpdateId.setText("");
            }
        });

        btnUpdate.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View view) {
                String id = tvId.getText().toString().trim();
                String name = etUpdateName.getText().toString().trim();
                String phone = etUpdatePhone.getText().toString().trim();
                String email = etUpdateEmail.getText().toString().trim();
                String address = etUpdateAddress.getText().toString().trim();

                if(name.isEmpty() || phone.isEmpty() || email.isEmpty() || addres
s.isEmpty()) {
                    Toast.makeText(getActivity(),"All fields Are requierd ",Toast
.LENGTH_SHORT).show();
                    return;
                }

                DatabaseHandler db = new DatabaseHandler(getActivity());
                try {
                    db.updateData(Integer.parseInt(id), name, phone, email, addre
ss);
                    Toast.makeText(getActivity(), "Data Updated Successfully ", T
oast.LENGTH_SHORT).show();
                } catch (Exception e) {
                    Toast.makeText(getActivity(),e.getMessage(),Toast.LENGTH_SHOR
T).show();
                }

                makeInvisible();
            }
        });

    }

    private void makeInvisible() {
        etUpdateName.setVisibility(View.GONE);
        etUpdatePhone.setVisibility(View.GONE);
        etUpdateEmail.setVisibility(View.GONE);
        etUpdateAddress.setVisibility(View.GONE);

        btnUpdate.setVisibility(View.GONE);

        tvUpdateIdShow.setVisibility(View.GONE);
        tvId.setVisibility(View.GONE);
        tvUpdateName.setVisibility(View.GONE);
        tvUpdatePhone.setVisibility(View.GONE);
        tvUpdateEmail.setVisibility(View.GONE);
        tvUpdateAddress.setVisibility(View.GONE);
    }

    private void makeVisible() {
        etUpdateName.setVisibility(View.VISIBLE);
        etUpdatePhone.setVisibility(View.VISIBLE);
        etUpdateEmail.setVisibility(View.VISIBLE);
        etUpdateAddress.setVisibility(View.VISIBLE);

        btnUpdate.setVisibility(View.VISIBLE);

        tvUpdateIdShow.setVisibility(View.VISIBLE);
        tvId.setVisibility(View.VISIBLE);
        tvUpdateName.setVisibility(View.VISIBLE);
        tvUpdatePhone.setVisibility(View.VISIBLE);
        tvUpdateEmail.setVisibility(View.VISIBLE);
        tvUpdateAddress.setVisibility(View.VISIBLE);
    }
}
```

ViewContactFragment.java

```
public class ViewContactFragment extends Fragment {

    @Override
    public View onCreateView(LayoutInflater inflater, ViewGroup container,
                             Bundle savedInstanceState) {
        // Inflate the layout for this fragment
        return inflater.inflate(R.layout.fragment_view_contact, container, false)
;
    }

    @Override
    public void onViewCreated(@NonNull View view, @Nullable Bundle savedInstanceS
tate) {
        super.onViewCreated(view, savedInstanceState);

        DatabaseHandler db = new DatabaseHandler(getActivity());
        Cursor cursor = db.getData();

        ArrayList<ContactInformation> arrayList = new ArrayList<>();

        RecyclerView recyclerView = view.findViewById(R.id.recyclerView);


        if(cursor.getCount() == 0) {
            Toast.makeText(getActivity(),"No Record Found",Toast.LENGTH_SHORT).sh
ow();
        } else {
            while (cursor.moveToNext()) {
                arrayList.add(new ContactInformation(Integer.parseInt(cursor.getS
tring(0)), cursor.getString(1), cursor.getString(2), cursor.getString(3),
                        cursor.getString(4)));
            }
        }

        RecyclerViewAdapter recyclerViewAdapter = new RecyclerViewAdapter(arrayLi
st,getActivity());
        recyclerView.setAdapter(recyclerViewAdapter);
        recyclerView.setLayoutManager(new LinearLayoutManager(getActivity()));
    }
}
```

RecyclerViewAdapter.java

```
public class RecyclerViewAdapter extends RecyclerView.Adapter<RecyclerViewAdapter
.ViewHolder> {

    private ArrayList<ContactInformation> info;
    private Context mContext;

    public RecyclerViewAdapter(ArrayList<ContactInformation> info, Context mConte
xt) {
        this.info = info;
```

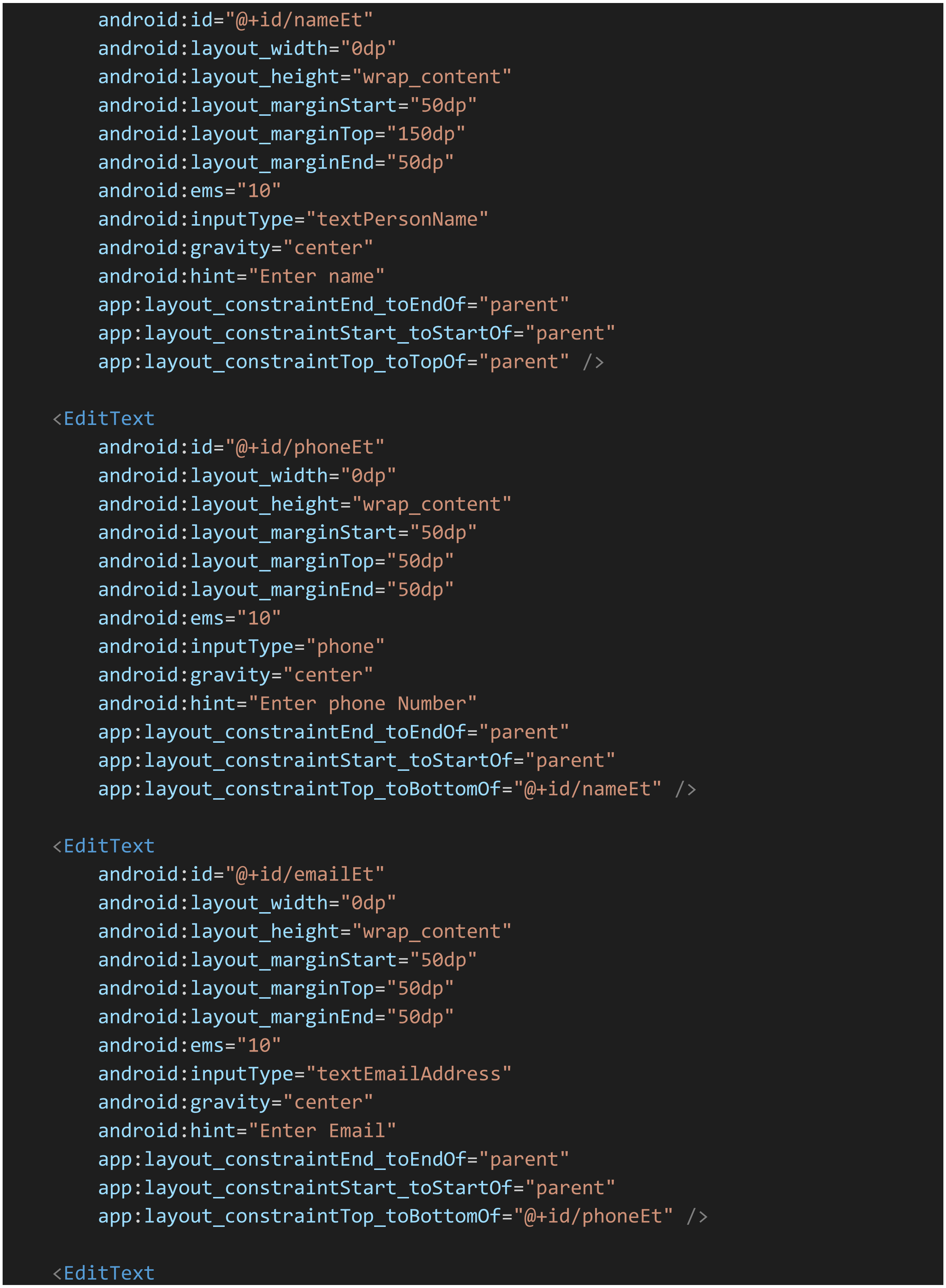
```java
        this.mContext = mContext;
    }

    @NonNull
    @Override
    public ViewHolder onCreateViewHolder(@NonNull ViewGroup parent, int viewType) {
        View view = LayoutInflater.from(parent.getContext()).inflate(R.layout.list_layout,parent,false);
        return new ViewHolder(view);
    }

    @Override
    public void onBindViewHolder(@NonNull ViewHolder holder, int position) {
        holder.idTv.setText("Id : " + info.get(position).getId());
        holder.nameTv.setText("Name: " + info.get(position).getName());
        holder.phoneTv.setText("Phone: " + info.get(position).getPhone());
        holder.emailTv.setText("Email: " + info.get(position).getEmail());
        holder.addressTv.setText("Address: " + info.get(position).getAddress());
    }

    @Override
    public int getItemCount() {
        return info.size();
    }

    public class ViewHolder extends RecyclerView.ViewHolder {

        TextView idTv, nameTv, phoneTv, emailTv, addressTv;
        LinearLayout parentLayout;

        public ViewHolder(@NonNull View itemView) {
            super(itemView);
            parentLayout = itemView.findViewById(R.id.parent_layout);
            idTv = itemView.findViewById(R.id.idDb);
            nameTv = itemView.findViewById(R.id.nameTv);
            phoneTv = itemView.findViewById(R.id.phoneTv);
            emailTv = itemView.findViewById(R.id.emailTv);
            addressTv = itemView.findViewById(R.id.addressTv);

        }
    }
}
```

activity_main.xml

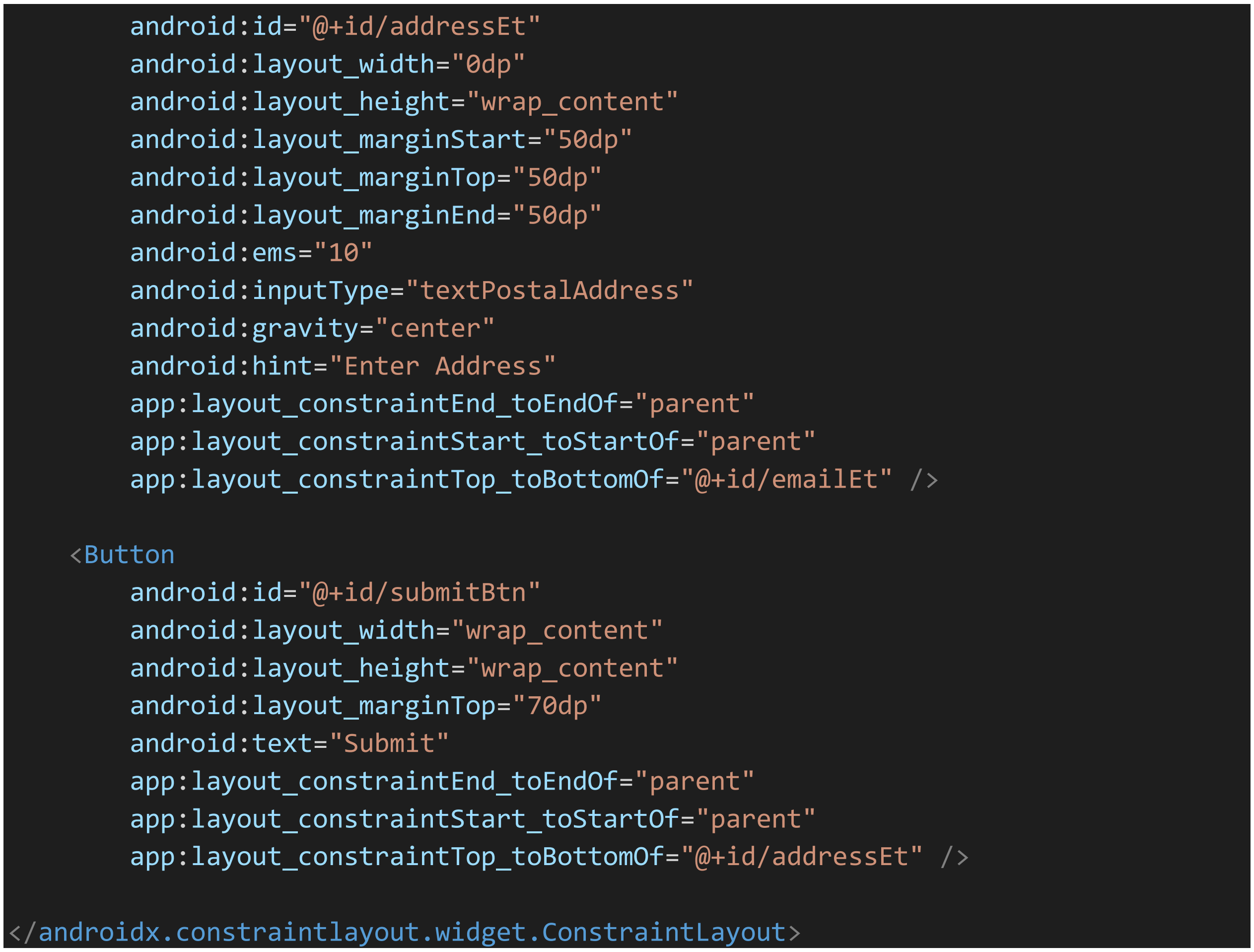
```
<?xml version="1.0" encoding="utf-8"?>
<androidx.drawerlayout.widget.DrawerLayout xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:app="http://schemas.android.com/apk/res-auto"
    xmlns:tools="http://schemas.android.com/tools"
    android:id="@+id/draw_layout"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:orientation="vertical"
    tools:openDrawer="start"
    tools:context=".MainActivity">

    <LinearLayout
        android:layout_width="match_parent"
        android:layout_height="match_parent"
        android:orientation="vertical">
        <FrameLayout
            android:id="@+id/fragment_container"
            android:layout_width="match_parent"
            android:layout_height="match_parent" />
    </LinearLayout>

    <com.google.android.material.navigation.NavigationView
        android:id="@+id/nav_view"
        android:layout_width="wrap_content"
        android:layout_height="match_parent"
        android:layout_gravity="start"
        app:headerLayout="@layout/nav_header"
        app:menu="@menu/draw_menu" />

</androidx.drawerlayout.widget.DrawerLayout>
```

Fragment_contact_entry.xml

```
<?xml version="1.0" encoding="utf-8"?>
<androidx.constraintlayout.widget.ConstraintLayout xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:app="http://schemas.android.com/apk/res-auto"
    xmlns:tools="http://schemas.android.com/tools"
    android:id="@+id/name"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    tools:context=".fragments.ContactEntryFragment">

    <EditText
```

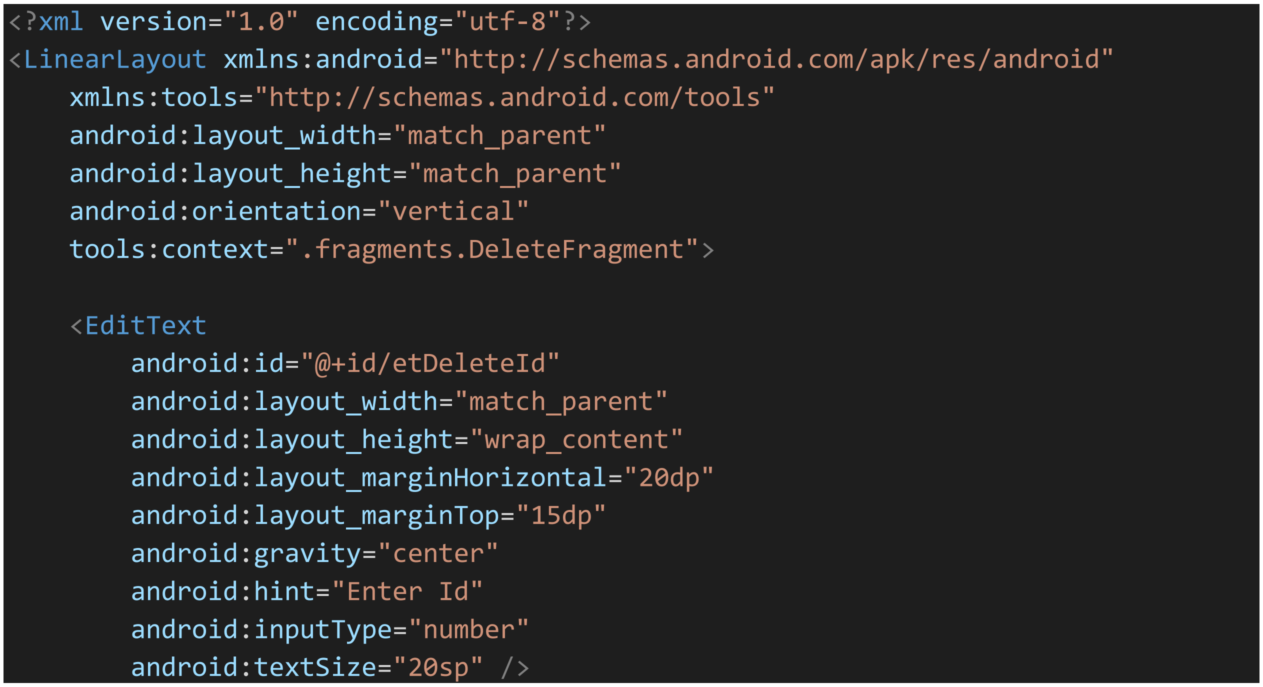


```
        android:id="@+id/nameEt"
        android:layout_width="0dp"
        android:layout_height="wrap_content"
        android:layout_marginStart="50dp"
        android:layout_marginTop="150dp"
        android:layout_marginEnd="50dp"
        android:ems="10"
        android:inputType="textPersonName"
        android:gravity="center"
        android:hint="Enter name"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent" />

    <EditText
        android:id="@+id/phoneEt"
        android:layout_width="0dp"
        android:layout_height="wrap_content"
        android:layout_marginStart="50dp"
        android:layout_marginTop="50dp"
        android:layout_marginEnd="50dp"
        android:ems="10"
        android:inputType="phone"
        android:gravity="center"
        android:hint="Enter phone Number"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toBottomOf="@+id/nameEt" />

    <EditText
        android:id="@+id/emailEt"
        android:layout_width="0dp"
        android:layout_height="wrap_content"
        android:layout_marginStart="50dp"
        android:layout_marginTop="50dp"
        android:layout_marginEnd="50dp"
        android:ems="10"
        android:inputType="textEmailAddress"
        android:gravity="center"
        android:hint="Enter Email"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toBottomOf="@+id/phoneEt" />

    <EditText
```



```
        android:id="@+id/addressEt"
        android:layout_width="0dp"
        android:layout_height="wrap_content"
        android:layout_marginStart="50dp"
        android:layout_marginTop="50dp"
        android:layout_marginEnd="50dp"
        android:ems="10"
        android:inputType="textPostalAddress"
        android:gravity="center"
        android:hint="Enter Address"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toBottomOf="@+id/emailEt" />

    <Button
        android:id="@+id/submitBtn"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginTop="70dp"
        android:text="Submit"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toBottomOf="@+id/addressEt" />

</androidx.constraintlayout.widget.ConstraintLayout>
```

Fragment_delete.xml



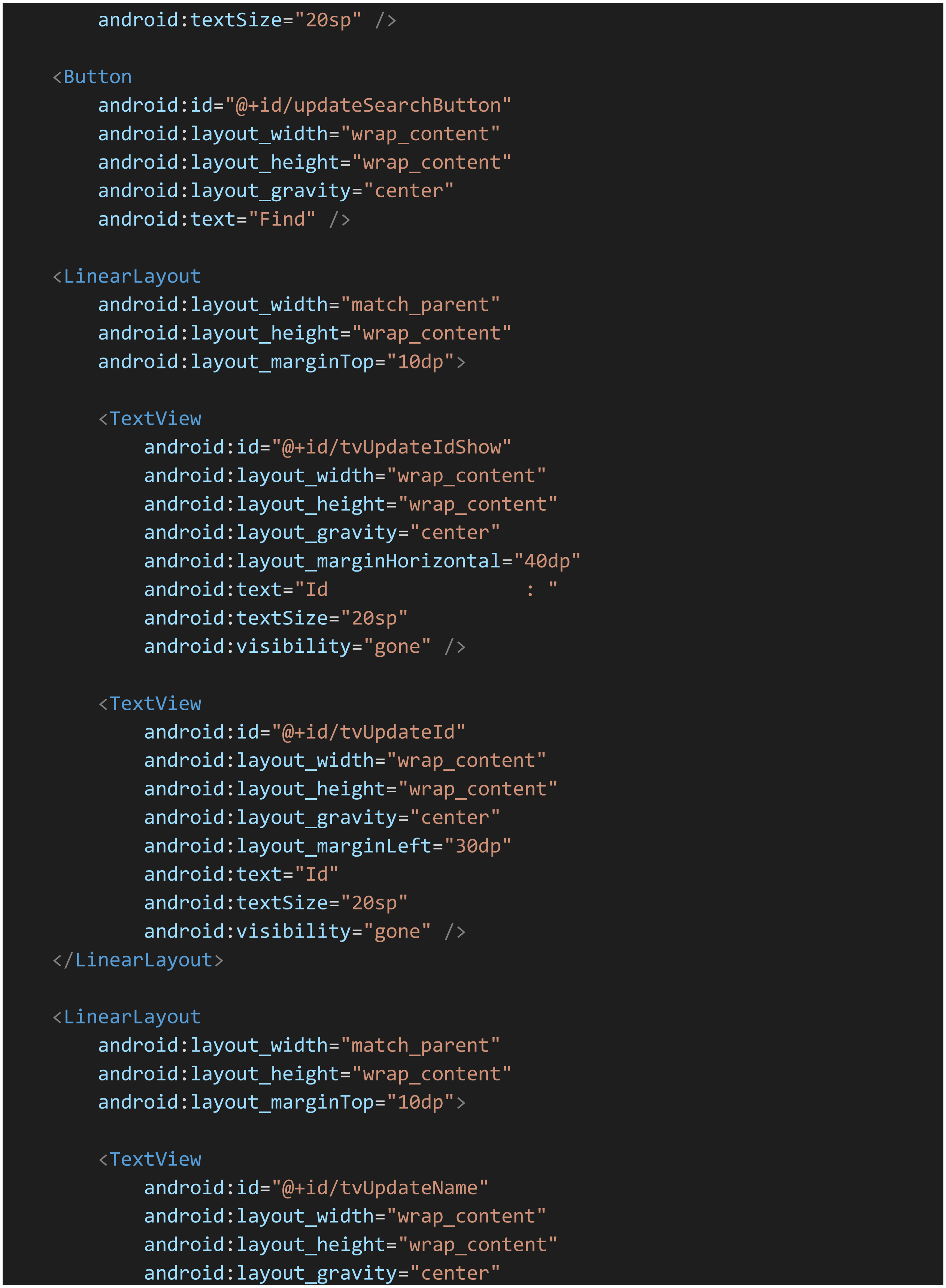
```
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:orientation="vertical"
    tools:context=".fragments.DeleteFragment">

    <EditText
        android:id="@+id/etDeleteId"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:layout_marginHorizontal="20dp"
        android:layout_marginTop="15dp"
        android:gravity="center"
        android:hint="Enter Id"
        android:inputType="number"
        android:textSize="20sp" />
    <Button
        android:id="@+id/deleteSearchButton"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_gravity="center"
        android:text="Find" />

    <androidx.recyclerview.widget.RecyclerView
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:id="@+id/deleteRecyclerList"
        android:padding="4dp"
        android:visibility="gone"
        android:scrollbars="vertical"/>

    <Button
        android:id="@+id/deleteButton"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_gravity="center"
        android:visibility="gone"
        android:text="Delete" />

</LinearLayout>
```

Fragment_serach.xml

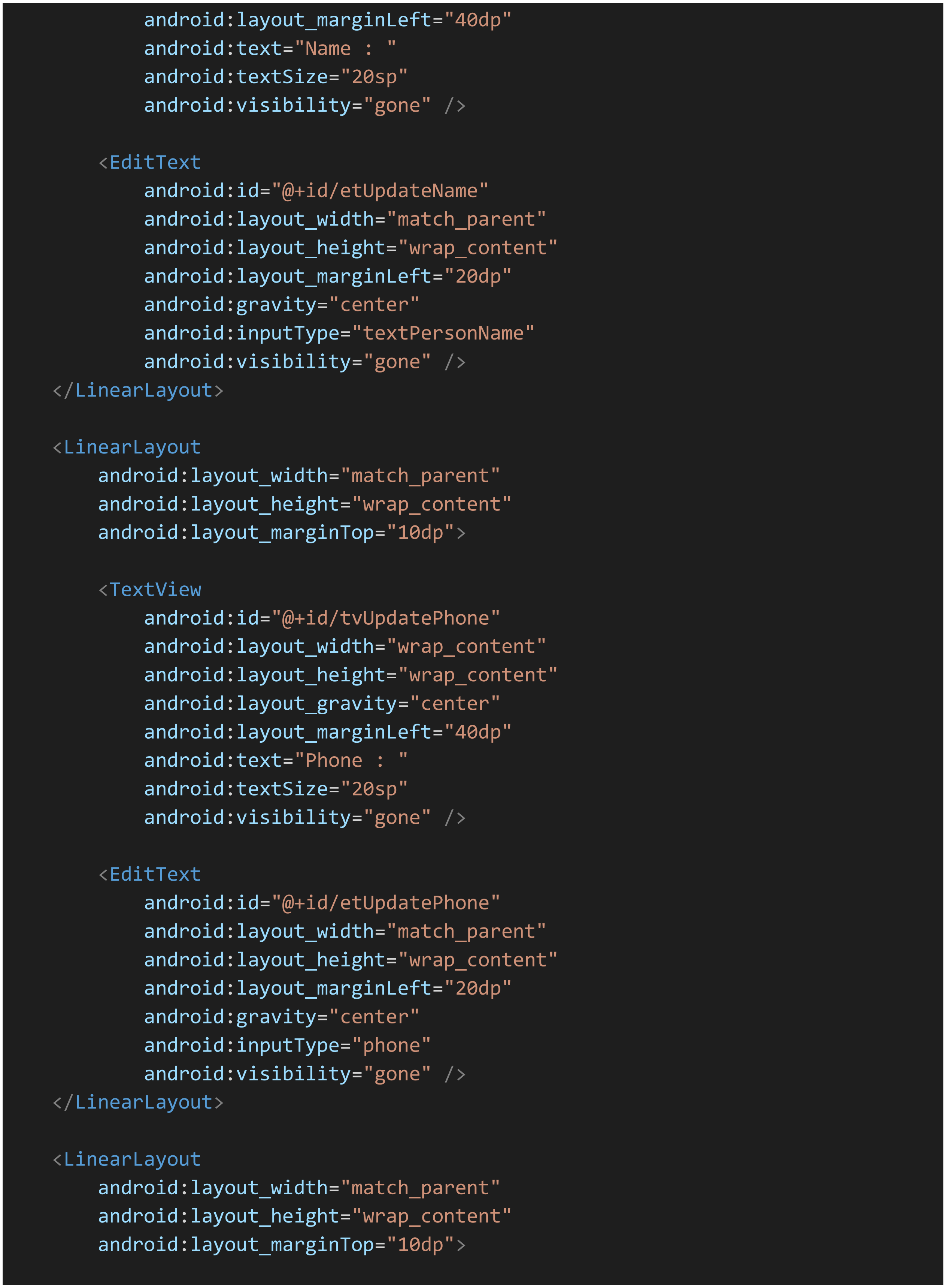
```
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:orientation="vertical"
    tools:context=".fragments.SerachFragment">

    <TextView
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:text="Search By Id"
        android:textSize="24sp"
        android:layout_marginTop="50dp"
        android:gravity="center"/>

    <EditText
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:id="@+id/etQuery"
        android:hint="Enter Id"
        android:gravity="center"
        android:inputType="number"
        android:layout_marginTop="15dp"
        android:layout_marginHorizontal="20dp"
        android:visibility="visible"
        android:textSize="20sp"/>

    <Button
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Find"
        android:visibility="visible"
        android:layout_gravity="center"
        android:id="@+id/searchButton"/>

    <androidx.recyclerview.widget.RecyclerView
        android:layout_width="match_parent"
        android:layout_height="match_parent"
        android:id="@+id/listViewId"
        android:padding="4dp"
        android:scrollbars="vertical"/>

</LinearLayout>
```

fragment_update.xml

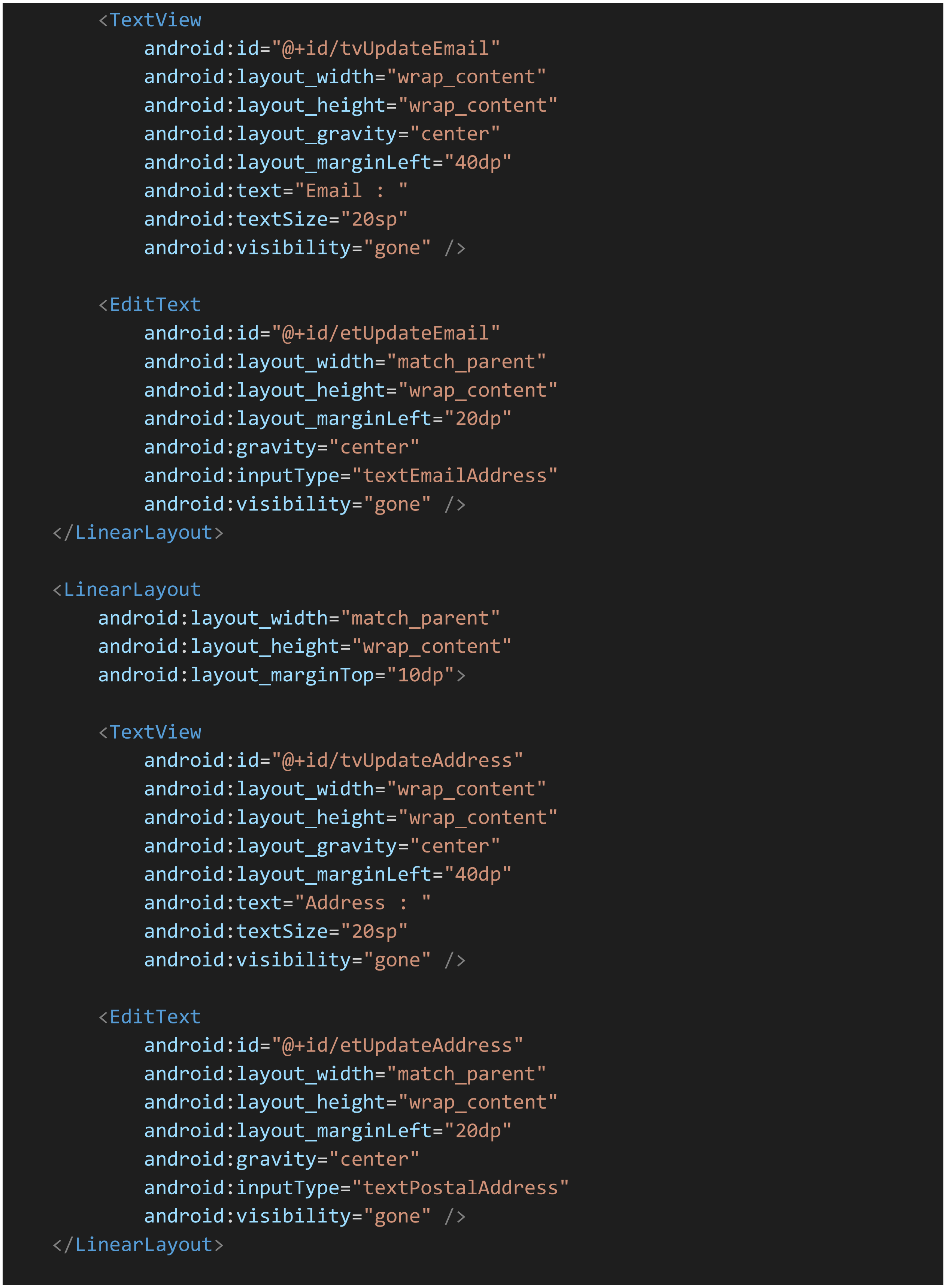
```
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:orientation="vertical"
    tools:context=".fragments.UpdateFragment">

    <EditText
        android:id="@+id/etUpdateId"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:layout_marginHorizontal="20dp"
        android:layout_marginTop="15dp"
        android:gravity="center"
        android:hint="Enter Id"
        android:inputType="number"
```



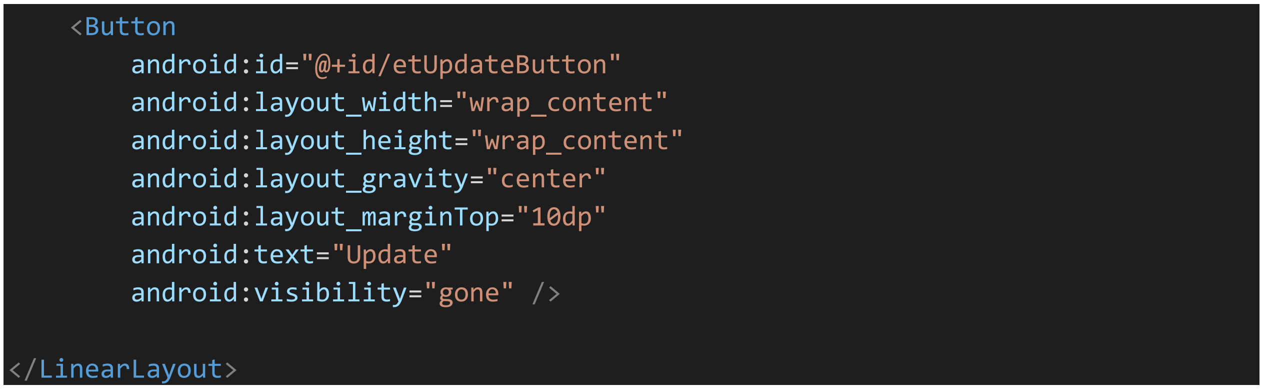
```
        android:textSize="20sp" />

    <Button
        android:id="@+id/updateSearchButton"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_gravity="center"
        android:text="Find" />

    <LinearLayout
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:layout_marginTop="10dp">

        <TextView
            android:id="@+id/tvUpdateIdShow"
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:layout_gravity="center"
            android:layout_marginHorizontal="40dp"
            android:text="Id                 : "
            android:textSize="20sp"
            android:visibility="gone" />

        <TextView
            android:id="@+id/tvUpdateId"
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:layout_gravity="center"
            android:layout_marginLeft="30dp"
            android:text="Id"
            android:textSize="20sp"
            android:visibility="gone" />
    </LinearLayout>

    <LinearLayout
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:layout_marginTop="10dp">

        <TextView
            android:id="@+id/tvUpdateName"
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:layout_gravity="center"
```



```xml
            android:layout_marginLeft="40dp"
            android:text="Name : "
            android:textSize="20sp"
            android:visibility="gone" />

        <EditText
            android:id="@+id/etUpdateName"
            android:layout_width="match_parent"
            android:layout_height="wrap_content"
            android:layout_marginLeft="20dp"
            android:gravity="center"
            android:inputType="textPersonName"
            android:visibility="gone" />
    </LinearLayout>

    <LinearLayout
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:layout_marginTop="10dp">

        <TextView
            android:id="@+id/tvUpdatePhone"
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:layout_gravity="center"
            android:layout_marginLeft="40dp"
            android:text="Phone : "
            android:textSize="20sp"
            android:visibility="gone" />

        <EditText
            android:id="@+id/etUpdatePhone"
            android:layout_width="match_parent"
            android:layout_height="wrap_content"
            android:layout_marginLeft="20dp"
            android:gravity="center"
            android:inputType="phone"
            android:visibility="gone" />
    </LinearLayout>

    <LinearLayout
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:layout_marginTop="10dp">
```

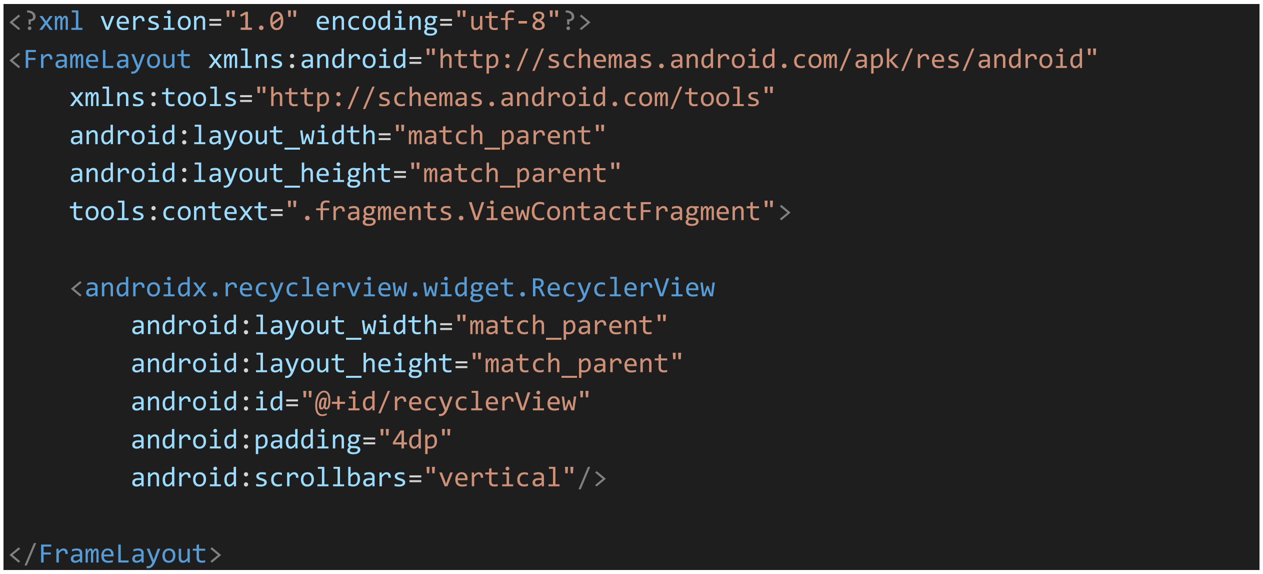


```
        <TextView
            android:id="@+id/tvUpdateEmail"
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:layout_gravity="center"
            android:layout_marginLeft="40dp"
            android:text="Email : "
            android:textSize="20sp"
            android:visibility="gone" />

        <EditText
            android:id="@+id/etUpdateEmail"
            android:layout_width="match_parent"
            android:layout_height="wrap_content"
            android:layout_marginLeft="20dp"
            android:gravity="center"
            android:inputType="textEmailAddress"
            android:visibility="gone" />
    </LinearLayout>

    <LinearLayout
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:layout_marginTop="10dp">

        <TextView
            android:id="@+id/tvUpdateAddress"
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:layout_gravity="center"
            android:layout_marginLeft="40dp"
            android:text="Address : "
            android:textSize="20sp"
            android:visibility="gone" />

        <EditText
            android:id="@+id/etUpdateAddress"
            android:layout_width="match_parent"
            android:layout_height="wrap_content"
            android:layout_marginLeft="20dp"
            android:gravity="center"
            android:inputType="textPostalAddress"
            android:visibility="gone" />
    </LinearLayout>
```

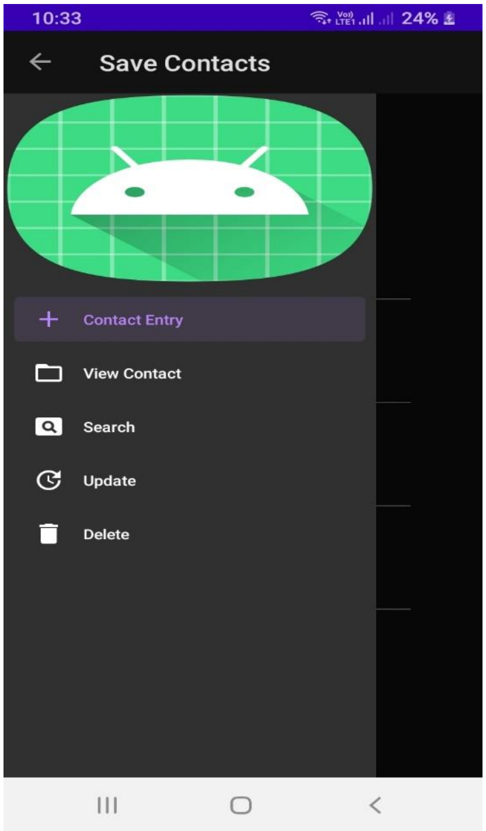


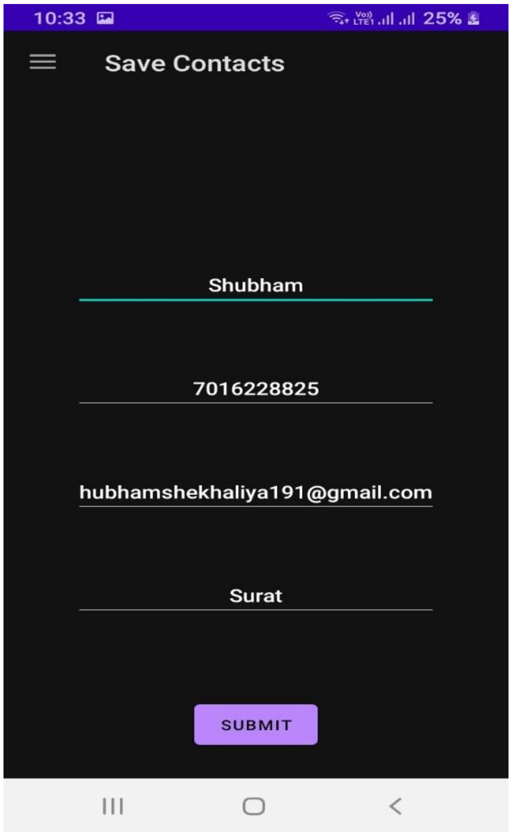
```
    <Button
        android:id="@+id/etUpdateButton"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_gravity="center"
        android:layout_marginTop="10dp"
        android:text="Update"
        android:visibility="gone" />

</LinearLayout>
```

fragment_view_contact.xml



```
<?xml version="1.0" encoding="utf-8"?>
<FrameLayout xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    tools:context=".fragments.ViewContactFragment">

    <androidx.recyclerview.widget.RecyclerView
        android:layout_width="match_parent"
        android:layout_height="match_parent"
        android:id="@+id/recyclerView"
        android:padding="4dp"
        android:scrollbars="vertical"/>

</FrameLayout>
```



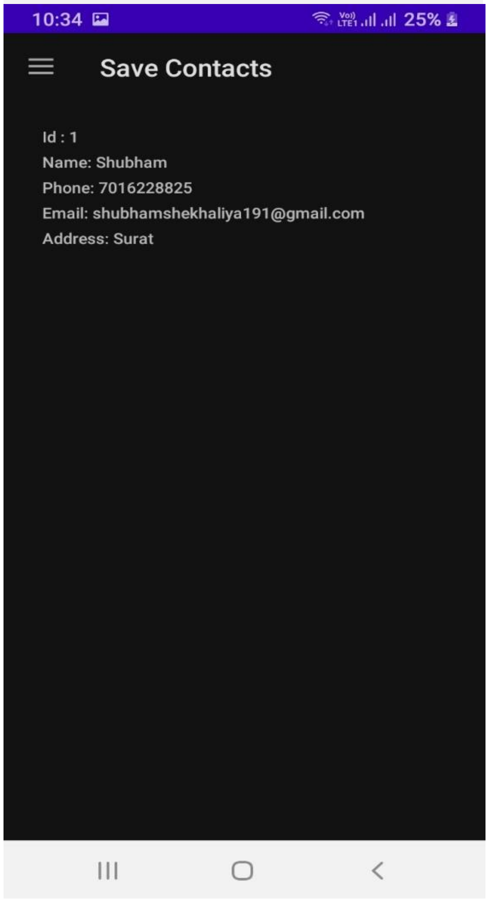


Shubham

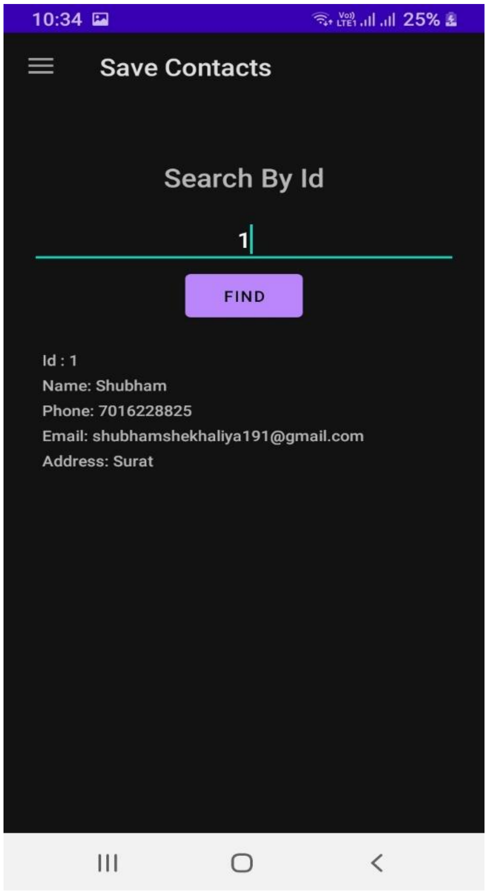
7016228825

hubhamshekhaliya191@gmail.com

Surat

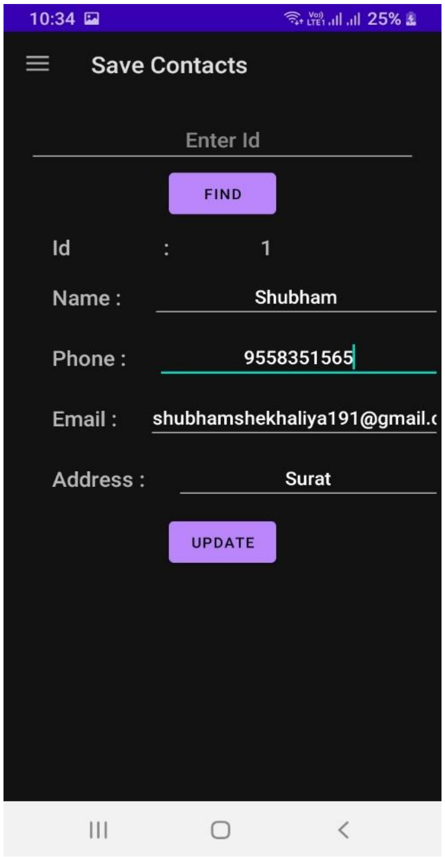


Id : 1
Name: Shubham
Phone: 7016228825
Email: shubhamshekhaliya191@gmail.com
Address: Surat



1

Id : 1
Name: Shubham
Phone: 7016228825
Email: shubhamshekhaliya191@gmail.com
Address: Surat



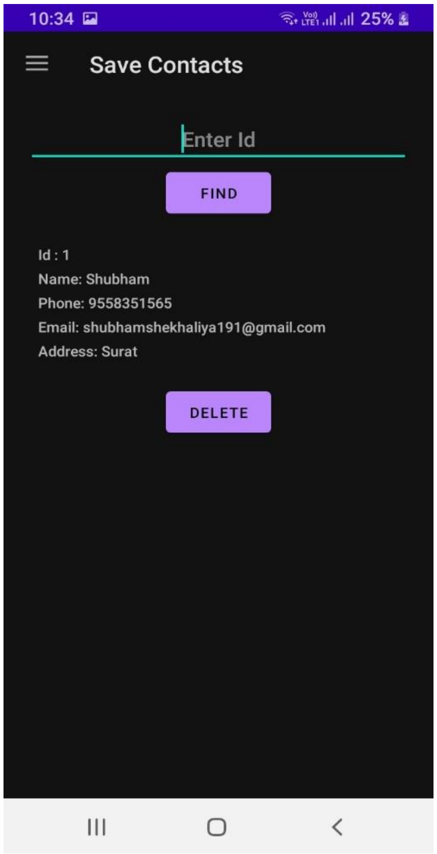
Id : 1

Name : Shubham

Phone : 9558351565

Email : shubhamshekhaliya191@gmail.c

Address : Surat



Id : 1
Name: Shubham
Phone: 9558351565
Email: shubhamshekhaliya191@gmail.com
Address: Surat