

MOBILE APPLICATION DESIGN AND DEVELOPMENT

DA – 01

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1. Intent with Data transfer

Activity_main.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:layout_width="match_parent"
    android:layout_height="match_parent"
    android:background="#FF9800"
    tools:context=".MainActivity">

    <TextView
        android:id="@+id/tv2"
        android:layout_width="296dp"
        android:layout_height="75dp"
        android:textColor="@color/black"
        android:textSize="24sp"
        android:textStyle="bold"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintHorizontal_bias="0.513"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent"
        app:layout_constraintVertical_bias="0.135" />

    <TextView
        android:id="@+id/t"
        android:layout_width="280dp"
        android:layout_height="47dp"
        android:lineSpacingExtra="20sp"
        android:textColor="@color/black"
        android:textSize="20sp"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintHorizontal_bias="0.496"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent"
        app:layout_constraintVertical_bias="0.292" />

    <EditText
        android:id="@+id/e1"
        android:layout_width="267dp"
        android:layout_height="66dp"
        android:ems="10"
        android:hint="Message"
        android:inputType="textPersonName"
        android:textColor="@color/black"
        android:textColorHint="@color/black">
```

```

        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent"
        app:layout_constraintVertical_bias="0.448" />

<Button
    android:id="@+id/button2"
    android:layout_width="156dp"
    android:layout_height="68dp"
    android:text="Send"
    android:textSize="30dp"
    app:layout_constraintBottom_toBottomOf="parent"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintHorizontal_bias="0.498"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toTopOf="parent"
    app:layout_constraintVertical_bias="0.644" />
</androidx.constraintlayout.widget.ConstraintLayout>

```

Activity_main2.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:layout_width="match_parent"
    android:layout_height="match_parent"
    android:background="#FF9800"
    tools:context=".MainActivity">
    <TextView
        android:id="@+id/textView"
        android:layout_width="296dp"
        android:layout_height="75dp"
        android:text="Message Received"
        android:textColor="@color/white"
        android:textSize="24sp"
        android:textStyle="bold"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintHorizontal_bias="0.504"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent"
        app:layout_constraintVertical_bias="0.155" />
    <TextView
        android:id="@+id/t1"
        android:layout_width="280dp"
        android:layout_height="47dp"
        android:textColor="@color/white"
        android:textSize="20sp"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintHorizontal_bias="0.442"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent"
        app:layout_constraintVertical_bias="0.318" />

```

```

<EditText
    android:id="@+id/e"
    android:layout_width="267dp"
    android:layout_height="66dp"
    android:ems="10"
    android:hint="Type here to reply"
    android:inputType="textPersonName"
    android:textColor="@color/white"
    android:textColorHint="@color/white"
    app:layout_constraintBottom_toBottomOf="parent"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintHorizontal_bias="0.604"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toTopOf="parent"
    app:layout_constraintVertical_bias="0.535" />
<Button
    android:id="@+id/button"
    android:layout_width="204dp"
    android:layout_height="84dp"
    android:text="reply"
    android:textSize="30dp"
    app:layout_constraintBottom_toBottomOf="parent"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintHorizontal_bias="0.603"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toTopOf="parent"
    app:layout_constraintVertical_bias="0.712" />
</androidx.constraintlayout.widget.ConstraintLayout>

```

MainActivity.java

```

package com.example.messagepassing;

import androidx.appcompat.app.AppCompatActivity;
import android.os.Bundle;
import androidx.annotation.Nullable;
import android.content.Intent;
import android.view.View;
import android.widget.Button;
import android.widget.EditText;
import android.widget.TextView;
public class MainActivity extends AppCompatActivity {
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        EditText txt1=(EditText) findViewById(R.id.e1);
        Button b1=(Button) findViewById(R.id.button2);
        b1.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View view) {
                String s1=txt1.getText().toString();
                Intent in=new
                    Intent(MainActivity.this,MainActivity2.class);
                in.putExtra("msg",s1);
                startActivityForResult(in,100);
            }
        });
    }
}

```

```

@Override
protected void onActivityResult(int requestCode, int resultCode,
                                @Nullable Intent data) {
    super.onActivityResult(requestCode, resultCode, data);
    if(requestCode==100)
    {
        TextView txt1=(TextView) findViewById(R.id.tv2);
        TextView txt2=(TextView) findViewById(R.id.t);
        String result=data.getStringExtra("reply");
        txt1.setText("Reply Received");
        txt2.setText(result);
        EditText txt3=(EditText) findViewById(R.id.e1);
        txt3.setText("");
    }
}
}

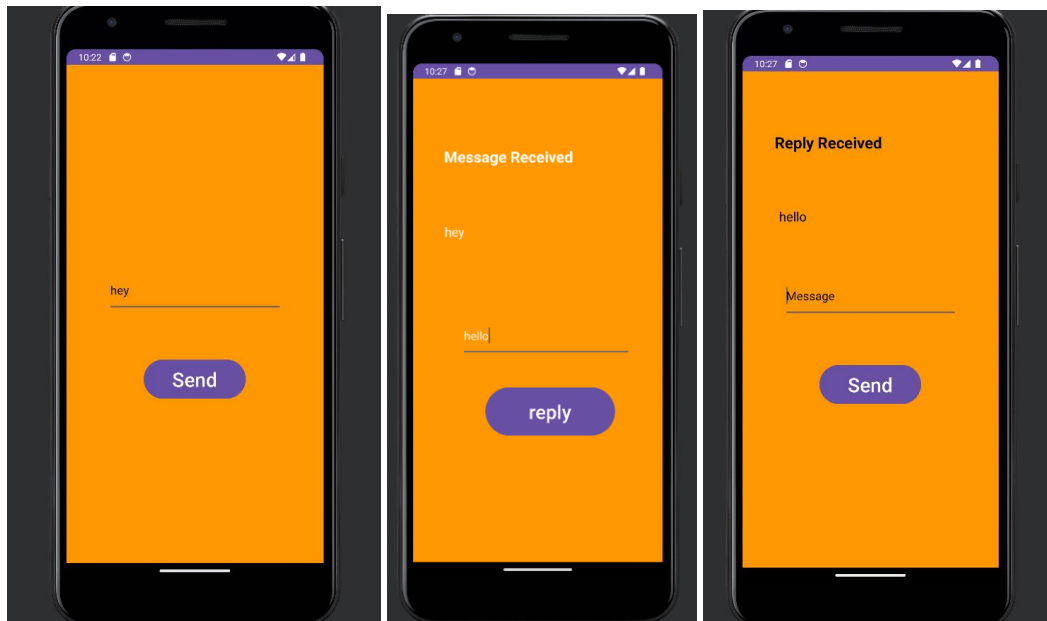
```

MainActivity2.java

```

package com.example.messagepassing;
import androidx.appcompat.app.AppCompatActivity;
import android.content.Intent;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import android.widget.EditText;
import android.widget.TextView;
public class MainActivity2 extends AppCompatActivity {
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main2);
        Intent i=getIntent();
        String str=i.getStringExtra("msg");
        TextView tx1=(TextView) findViewById(R.id.t1);
        tx1.setText(str);
        Button b1=(Button) findViewById(R.id.button);
        EditText t1=(EditText) findViewById(R.id.e);
        b1.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View view) {
                String str1=t1.getText().toString();
                Intent in=new Intent();
                in.putExtra("reply",str1);
                setResult(100,in);
                finish();
            }
        });
    }
}

```



2. Scroll View

Activity_main.xml

```
<?xml version="1.0" encoding="utf-8"?>
<RelativeLayout 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:paddingStart="16dp"
    android:paddingEnd="16dp"
    android:paddingTop="16dp"
    android:paddingBottom="16dp"
    tools:context=".MainActivity">

    <TextView
        android:id="@+id/textView"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Vertical ScrollView example"
        android:textAppearance="?android:attr/textAppearanceMedium"
        android:layout_centerHorizontal="true"
        android:layout_alignParentTop="true" />

    <ScrollView
        android:id="@+id/scrollView"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:layout_below="@id/textView"
        android:layout_marginTop="16dp">

        <LinearLayout
            android:layout_width="match_parent"
```

```
android:layout_height="wrap_content"
android:orientation="vertical" >

<Button
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:text="Button 1" />

<Button
    android:layout_width="fill_parent"
    android:layout_height="wrap_content"
    android:text="Button 2" />

<Button
    android:layout_width="fill_parent"
    android:layout_height="wrap_content"
    android:text="Button 3" />

<Button
    android:layout_width="fill_parent"
    android:layout_height="wrap_content"
    android:text="Button 4" />

<Button
    android:layout_width="fill_parent"
    android:layout_height="wrap_content"
    android:text="Button 5" />

<Button
    android:layout_width="fill_parent"
    android:layout_height="wrap_content"
    android:text="Button 6" />

<Button
    android:layout_width="fill_parent"
    android:layout_height="wrap_content"
    android:text="Button 7" />

<Button
    android:layout_width="fill_parent"
    android:layout_height="wrap_content"
    android:text="Button 8" />

<Button
    android:layout_width="fill_parent"
    android:layout_height="wrap_content"
    android:text="Button 9" />

<Button
    android:layout_width="fill_parent"
    android:layout_height="wrap_content"
    android:text="Button 10" />

<Button
    android:layout_width="fill_parent"
    android:layout_height="wrap_content"
    android:text="Button 11" />

<Button
    android:layout_width="fill_parent"
    android:layout_height="wrap_content"
    android:text="Button 12" />

<Button
    android:layout_width="fill_parent"
    android:layout_height="wrap_content"
    android:text="Button 13" />

<Button
    android:layout_width="fill_parent"
    android:layout_height="wrap_content"
    android:text="Button 14" />

<Button
```

```

        android:layout_width="fill_parent"
        android:layout_height="wrap_content"
        android:text="Button 15" />
    <Button
        android:layout_width="fill_parent"
        android:layout_height="wrap_content"
        android:text="Button 16" />
    <Button
        android:layout_width="fill_parent"
        android:layout_height="wrap_content"
        android:text="Button 17" />
    <Button
        android:layout_width="fill_parent"
        android:layout_height="wrap_content"
        android:text="Button 18" />

    <Button
        android:layout_width="fill_parent"
        android:layout_height="wrap_content"
        android:text="Button 19" />
    <Button
        android:layout_width="fill_parent"
        android:layout_height="wrap_content"
        android:text="Button 20" />

</LinearLayout>

</ScrollView>

</RelativeLayout>

```

MainActivity.java

```

package com.example.scrollview;

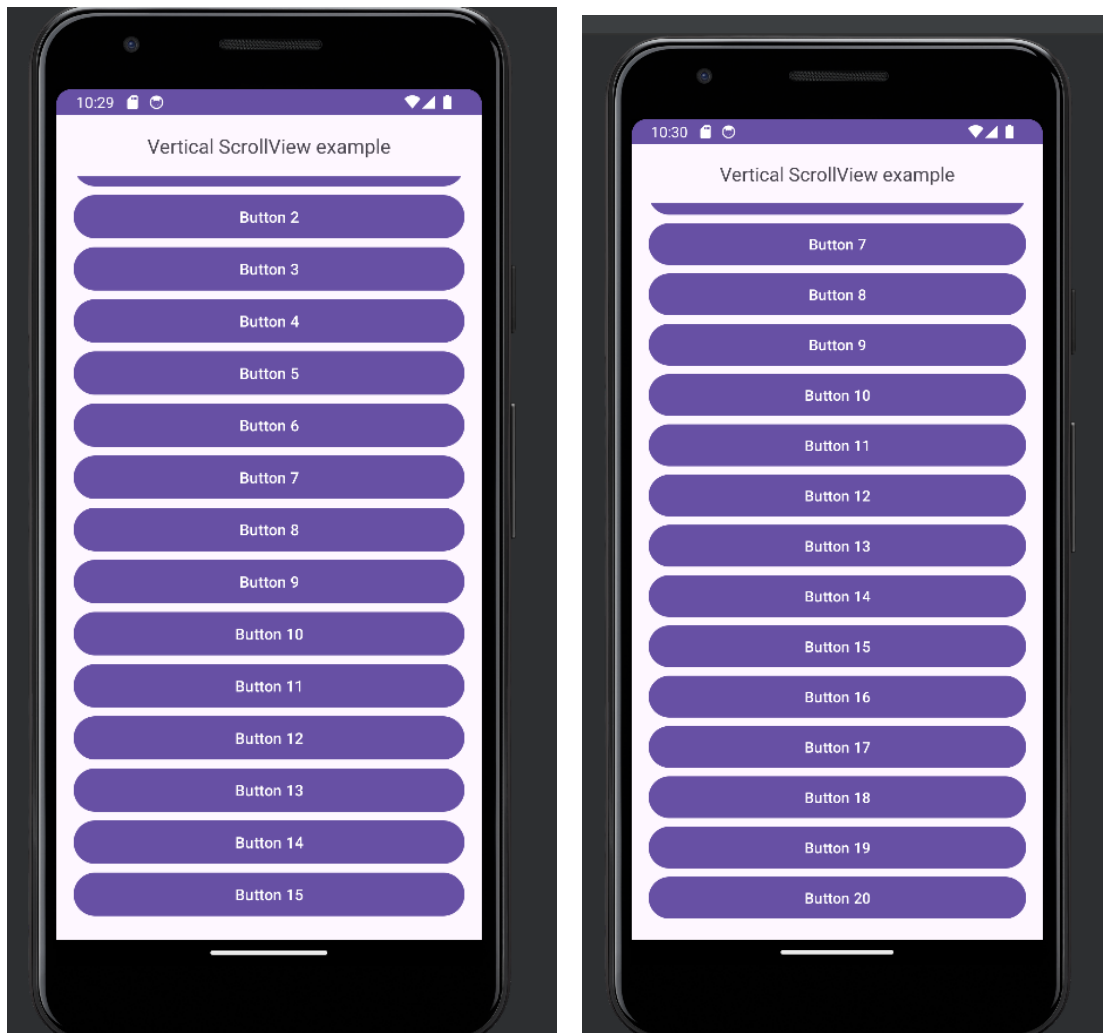
import androidx.appcompat.app.AppCompatActivity;

import android.os.Bundle;

public class MainActivity extends AppCompatActivity {

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

```



3. Progress Bar

Activity_main.xml

```
<?xml version="1.0" encoding="utf-8"?>
<RelativeLayout 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=".MainActivity" >

    <Button
        android:id="@+id/button1"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_centerInParent="true"
        android:text="Download File" />

</RelativeLayout>
```

MainActivity.java

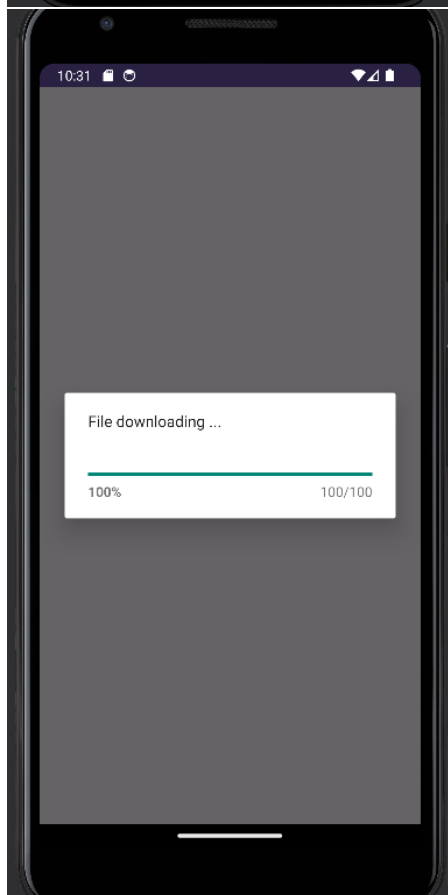
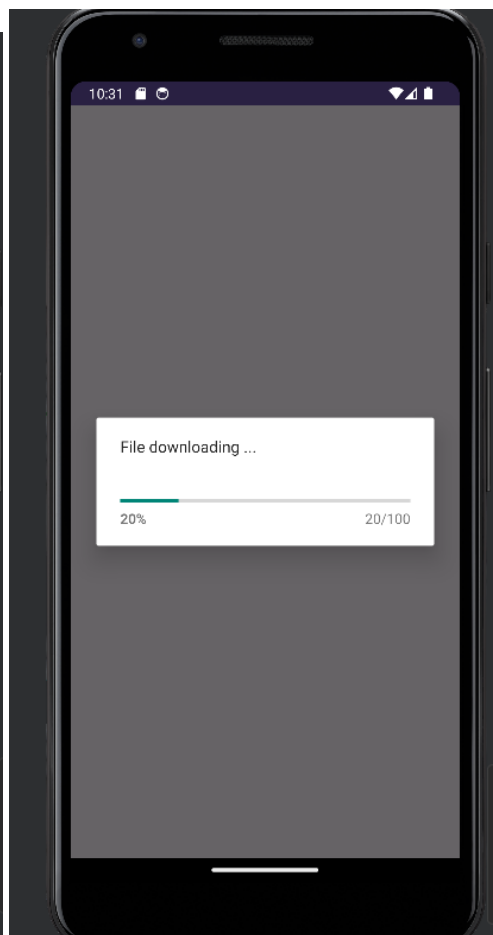

```

// sleeping for 1 second after operation
completed

        try {
            Thread.sleep(1000);
        } catch (InterruptedException e) {
            e.printStackTrace();
        }
        // close the progress bar dialog
        progressBar.dismiss();
    }

    }).start();
} //end of onClick method
});
}
// checking how much file is downloaded and updating the filesize
public int doOperation() {
    //The range of ProgressDialog starts from 0 to 10000
    while (fileSize <= 10000) {
        fileSize++;
        if (fileSize == 1000) {
            return 10;
        } else if (fileSize == 2000) {
            return 20;
        } else if (fileSize == 3000) {
            return 30;
        } else if (fileSize == 4000) {
            return 40; // you can add more else if
        }
        /* else {
            return 100;
        } */
    } //end of while
    return 100;
} //end of doOperation
}

```



Rating Bar

Activity_main.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:layout_width="match_parent"
    android:layout_height="match_parent"
    tools:context="example.javatpoint.com.ratingbar.MainActivity">

    <Button
        android:id="@+id/button"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="submit"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintLeft_toLeftOf="parent"
        app:layout_constraintRight_toRightOf="parent"
        app:layout_constraintTop_toTopOf="parent"
        app:layout_constraintVertical_bias="0.615" />

    <RatingBar
        android:id="@+id/ratingBar"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginLeft="72dp"
        android:layout_marginTop="60dp"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent" />

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

MainActivity.java

```
package com.example.ratingbar;

import androidx.appcompat.app.AppCompatActivity;

import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import android.widget.RatingBar;
import android.widget.Toast;

public class MainActivity extends AppCompatActivity {
    RatingBar ratingbar;
    Button button;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        addListenerOnButtonClick();
    }
    public void addListenerOnButtonClick() {
        ratingbar=(RatingBar) findViewById(R.id.ratingBar);
        button=(Button) findViewById(R.id.button);
    }
}
```

```
//Performing action on Button Click
button.setOnClickListener(new View.OnClickListener() {

    @Override
    public void onClick(View arg0) {
        //Getting the rating and displaying it on the toast
        String rating=String.valueOf(ratingbar.getRating());
        Toast.makeText(getApplicationContext(), rating,
Toast.LENGTH_LONG).show();
    }

});
}
```

