

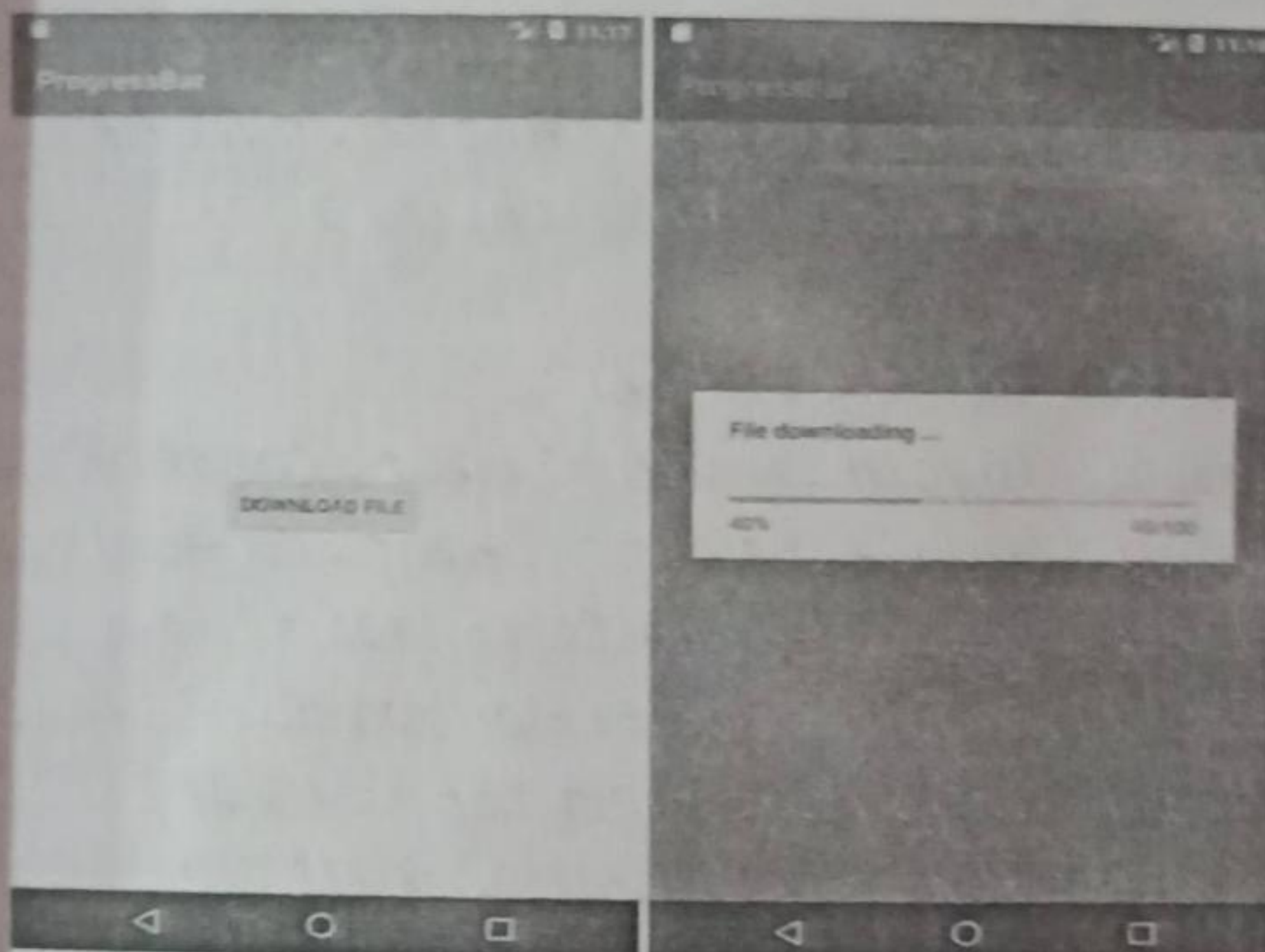
3) → widget.ProgressBar.Horizontal
 widget.ProgressBar.Small
 widget.ProgressBar.Large
 widget.ProgressBar.Inverse
 widget.ProgressBar.Small.Inverse
 widget.ProgressBar.Large.Inverse

X. Exercise

Note: Below given are few sample questions for reference. Teachers must design different questions for practice.

(Use blank space for answers or attach more pages if needed)

1. Write a program to display circular progress bar.
2. Write a program to show the following output.



(Space for answers)

1) →

```
<?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"
    tools:context=".MainActivity">
    <ProgressBar
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
```



```

        android:layout_marginStart="150dp"
        android:minHeight="50dp"
        android:maxLength="50dp"
        android:progress="25"/>
    </LinearLayout>

```

```

2) <?xml version="1.0" encoding="utf-8"?>
    <RelativeLayout xmlns:android="http://schemas.android
        xmlns:tools="http://schemas.android.com
        xmlns:tools="http://schemas.android.com
        tools"
        android:layout_width="match_parent"
        android:layout_height="match_parent"
        tools:context=".MainActivity">
        <Button
            android:id="@+id/b1"
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:layout_alignParentTop="true"
            android:layout_centerHorizontal="true"
            android:layout_marginTop="116dp"
            android:text="DOWNLOAD FILE"/>
        </RelativeLayout>

```

MainActivity.java

```

package com.example.progressBar;
import android.app.ProgressDialog;
import android.os.Handler;
import android.support.v7.app.AppCompatActivity;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;
public class MainActivity extends AppCompatActivity {

```


Button b;

ProgressDialog pd;

addListenerOnButtonClick();

} public void addListenerOnButtonClick() {

b = findViewById(R.id.b1);

b.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View v) {

pd = new ProgressDialog(v.getContext());

pd.setCancelable(true);

pd.setMessage("File Downloading...");

pd.setProgressStyle(ProgressDialog.STYLE_HORIZONTAL);

pd.setProgress(0);

pd.setMax(100);

pd.show();

progressBarStatus = 0;

FileSize = 0;

new Thread(new Runnable() {

public void run() {

while (progressBarStatus < 100) {

progressBarStatus = doOperation();

try {

Thread.sleep(1000);

} catch (InterruptedException e) {

e.printStackTrace();

} pd.setProgress(progressBarStatus);

}

});

}


```

if( progressBarStatus == 100) {
    try {
        Thread.sleep(1000);
    } catch (InterruptedException e) {
        e.printStackTrace();
    }
    pb.dismiss();
}
});
}
});
}
}

} public int doOperation() {
    while (Filesize <= 10000) {
        Filesize++;
        if (Filesize == 1000) {
            return 10;
        }
        elseif (Filesize == 2000) {
            return 20;
        }
        elseif (Filesize == 3000) {
            return 30;
        }
        elseif (Filesize == 4000) {
            return 40;
        }
    }
    return 100;
}

```



```
private int progressBarStatus = 0;
private Handler progressBarHandler = new Handler();
private long filesize = 0;
@Override
protected void onCreate(Bundle savedInstanceState) {
    super.onCreate(savedInstanceState);
    setContentView(R.layout.activity_main);
}
```

XI. References / Suggestions for further Reading

1. <https://www.tutorialspoint.com/android>
2. <https://stuff.mit.edu>
3. https://www.tutorialspoint.com/android/android_advanced_tutorial.pdf
4. <https://developer.android.com>

XII. Assessment Scheme