

Q1. Write a program to display circular progress bar

XML Code:

```

<?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=".MainActivity">
    <TextView
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Downloading..."
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintLeft_toLeftOf="parent"
        app:layout_constraintRight_toRightOf="parent"
        app:layout_constraintTop_toTopOf="parent"
        app:layout_constraintVertical_bias="0.367" />
    <ProgressBar
        android:id="@+id/progressBar"
        style="?android:attr/progressBarStyle"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginStart="179dp"
        android:layout_marginTop="318dp"
        android:layout_marginEnd="184dp"
        android:layout_marginBottom="365dp"
        android:progress="0"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent" />
</androidx.constraintlayout.widget.ConstraintLayout>

```

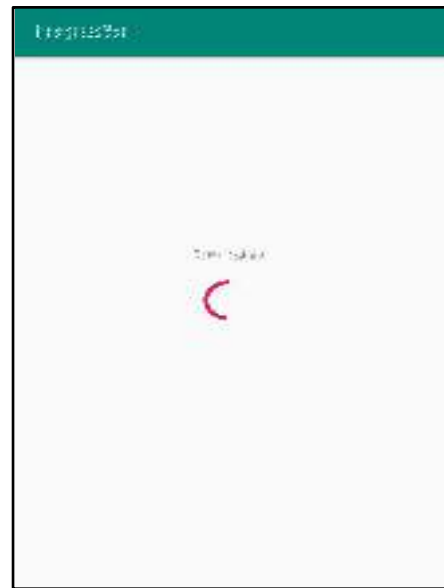
JAVA code:

```

package com.example.progressbar;
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);
    }
}

```

Output:



Q2. Write a program to show the following output

XML code:

```
<?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=".MainActivity">
    <Button
        android:id="@+id/b1"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginStart="192dp"
        android:layout_marginTop="396dp"
        android:layout_marginEnd="173dp"
        android:layout_marginBottom="397dp"
        android:text="Download File"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent" />
</androidx.constraintlayout.widget.ConstraintLayout>
```

JAVA code:

```
package com.example.progressbar_2;
import androidx.appcompat.app.AppCompatActivity;
import android.app.ProgressDialog;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;
public class MainActivity extends AppCompatActivity {
    Button btn;
    ProgressDialog pb;
    int progressStatus=0;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
```

```

setContentView(R.layout.activity_main);
btn=(Button)findViewById(R.id.b1);
btn.setOnClickListener(new View.OnClickListener() {
    @Override
    public void onClick(View v) {
        pb=new ProgressDialog(v.getContext());
        pb.setMessage("File downloading...");
        pb.setProgressStyle(ProgressDialog.STYLE_HORIZONTAL);
        pb.show();
        new Thread(new Runnable() {
            @Override
            public void run() {
                try{
                    int i=0;
                    while(i<=100) {
                        pb.setProgress(i);
                        Thread.sleep(100);
                        i = i + 1;
                    }
                    if(i>=100){
                        pb.dismiss();
                    }
                }
                catch (InterruptedException e){
                }
            }
        }).start();
    }
});
}
}

```

Output:

