Practical No 13

X.1

- **Program:**
- **XML File:**

```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=".MainActivity">
    <Button
        android:id="@+id/button"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginStart="158dp"
        android:layout_marginTop="341dp"
        android:layout_marginEnd="159dp"
        android:layout_marginBottom="342dp"
        android:text="Download File"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintHorizontal_bias="0.491"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent"
        app:layout_constraintVertical_bias="1.0" />
    <ProgressBar
        android:id="@+id/progressBar"
        style="?android:attr/progressBarStyle"
        android:layout_width="97dp"
        android:layout_height="129dp"
        android:layout_marginStart="189dp"
```

android:layout_marginTop="236dp"

android:layout_marginEnd="175dp"

android:layout_marginBottom="57dp"

android:visibility="gone"

app:layout_constraintBottom_toTopOf="@+id/button"

app:layout_constraintEnd_toEndOf="parent"

app:layout_constraintStart_toStartOf="parent"
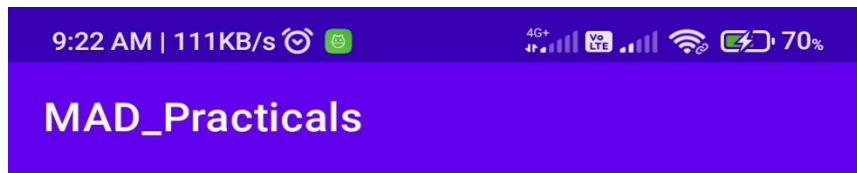
app:layout_constraintTop_toTopOf="parent" />

</androidx.constraintlayout.widget.ConstraintLayout>

- **JAVA File:**

```java
package com.example.mad_practicals;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import android.widget.ProgressBar;
import androidx.appcompat.app.AppCompatActivity;
public class MainActivity extends AppCompatActivity {
    Button button;
    ProgressBar pb;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        button = (Button) findViewById(R.id.button);
        pb = findViewById(R.id.progressBar);
        button.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View view) {
                pb.setVisibility(View.VISIBLE);
            }
        });
    }
}
```

- **Output:**

X.2

- **Program:**
- **XML File:**

```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=".MainActivity">
    <Button
        android:id="@+id/button"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginStart="158dp"
        android:layout_marginTop="341dp"
        android:layout_marginEnd="159dp"
        android:layout_marginBottom="342dp"
        android:text="Download File"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintHorizontal_bias="0.491"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent"
        app:layout_constraintVertical_bias="1.0" />
    <ProgressBar
        android:id="@+id/progressBar"
        style="?android:attr/progressBarStyle"
        android:layout_width="97dp"
        android:layout_height="129dp"
        android:layout_marginStart="189dp"
        android:layout_marginTop="236dp"
```

android:layout_marginEnd="175dp"

android:layout_marginBottom="57dp"

android:visibility="gone"

app:layout_constraintBottom_toTopOf="@+id/button"

app:layout_constraintEnd_toEndOf="parent"

app:layout_constraintStart_toStartOf="parent"
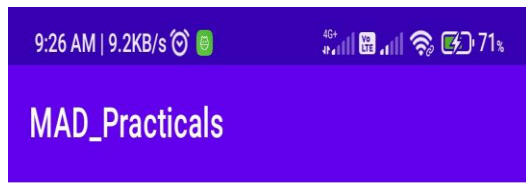
app:layout_constraintTop_toTopOf="parent" />

</androidx.constraintlayout.widget.ConstraintLayout>

- **JAVA File:**

```java
package com.example.mad_practicals;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import android.widget.ProgressBar;
import androidx.appcompat.app.AppCompatActivity;
public class MainActivity extends AppCompatActivity {
    Button button;
    ProgressBar pb;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        button = (Button) findViewById(R.id.button);
        pb = findViewById(R.id.progressBar);
        button.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View view) {
                pb.setVisibility(View.VISIBLE);
            }
        });
    }
}
```

- **Output:**