Program 2
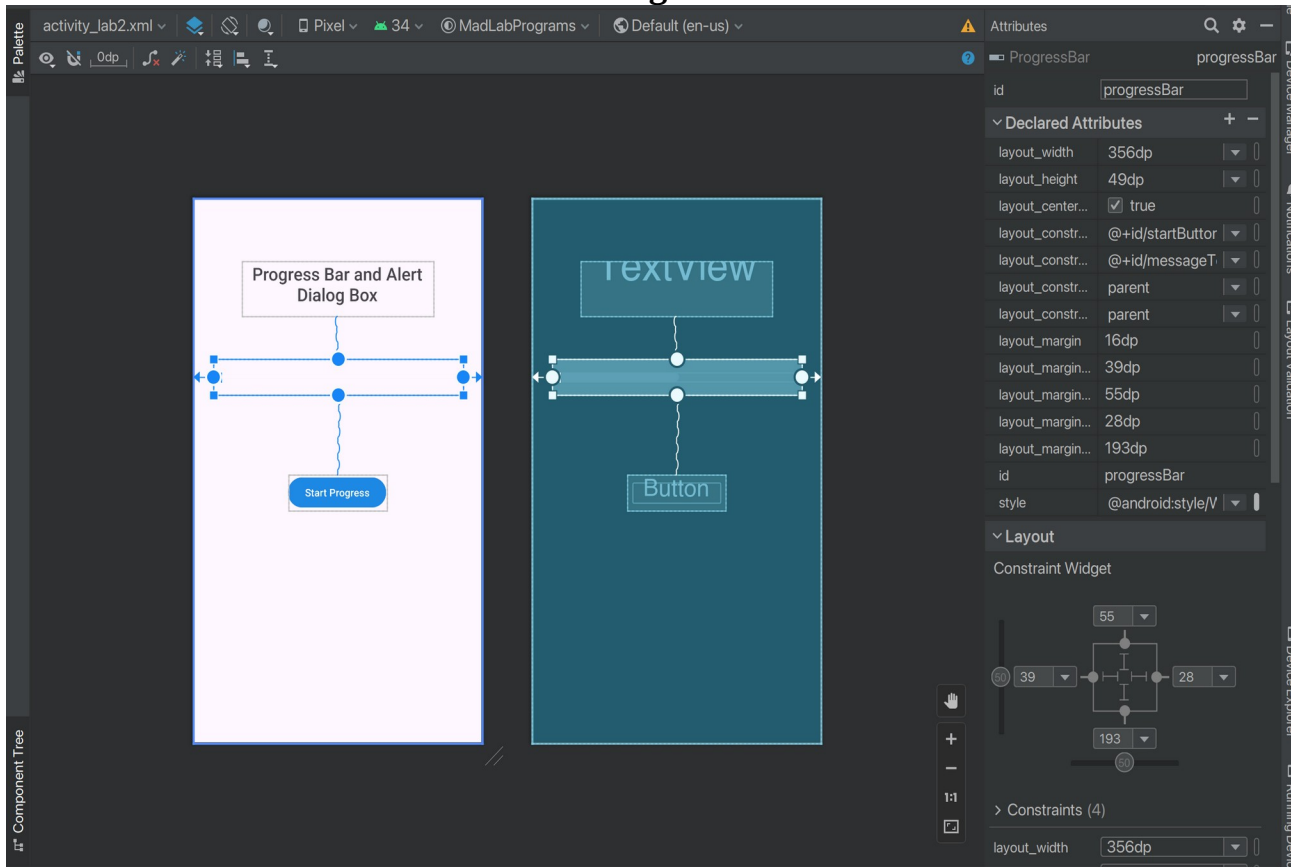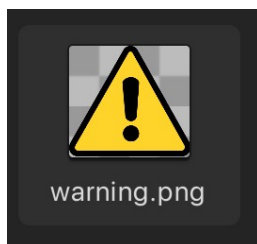## Develop an app to display a Progress Bar and show a message with Alert Dialog

Design

Note: Paste Alert png images in res/drawable folder

Xml Code

Activity_main.xml

```xml
<ProgressBar
    android:id="@+id/progressBar"
    style="@android:style/Widget.Holo.ProgressBar.Horizontal"
    android:layout_width="356dp"
    android:layout_height="49dp"
    android:layout_centerVertical="true"
    android:layout_margin="16dp"
    android:layout_marginStart="39dp"
    android:layout_marginTop="55dp"
    android:layout_marginEnd="28dp"
    android:layout_marginBottom="193dp"
```

```
    app:layout_constraintBottom_toTopOf="@+id/startButton"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toBottomOf="@+id/messageTextView" />

<Button
    android:id="@+id/startButton"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_below="@id/progressBar"
    android:layout_centerHorizontal="true"
    android:layout_marginStart="135dp"
    android:layout_marginTop="69dp"
    android:layout_marginEnd="136dp"
    android:layout_marginBottom="289dp"
    android:backgroundTint="#1E88E5"
    android:text="Start Progress"
    app:layout_constraintBottom_toBottomOf="parent"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toBottomOf="@+id/progressBar" />

<TextView
    android:id="@+id/messageTextView"
    android:layout_width="273dp"
    android:layout_height="74dp"
    android:layout_below="@id/startButton"
    android:layout_centerHorizontal="true"
    android:layout_marginStart="69dp"
    android:layout_marginTop="62dp"
    android:layout_marginEnd="69dp"
    android:layout_marginBottom="17dp"
    android:fontFamily="sans-serif-medium"
    android:text="Progress Bar and Alert Dialog Box"
    android:textAlignment="center"
    android:textSize="24sp"
    app:layout_constraintBottom_toTopOf="@+id/progressBar"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toTopOf="parent" />
```

Java Code

MainActivity.java

```java
public class MainActivity extends AppCompatActivity {

    private ProgressBar pbar;
    private Button load;
    private TextView messageTextView;

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_lab2);

        pbar = findViewById(R.id.progressBar);
        load = findViewById(R.id.startButton);
        messageTextView = findViewById(R.id.messageTextView);

        load.setOnClickListener(v->{
            load.setEnabled(false);
            pbar.setVisibility(View.VISIBLE);
            long min=10*1000;
            new CountDownTimer(min,1000){
                @Override
                public void onTick(long l){
                    long a=min-l;
                    float total=((float) a / (float)min)*100;
                    pbar.setProgress((int)total,true);
                }
                @Override
                public void onFinish(){
                    AlertDialog.Builder builder = new AlertDialog.Builder(
                            Lab2.this
                    );
                    builder.setTitle("Loaded !");
                    builder.setMessage("loaded successfully");
                    builder.setPositiveButton(
                            "OK",(dialog,which)-> dialog.cancel()
                    );
                    builder.setNegativeButton("exit",((dialog, which) -> finish()));
                    AlertDialog alert=builder.create();
                    alert.show();
                    load.setEnabled(true);
                }

            }.start();
        });
    }

}
```