

PRACTICAL-2.2

AIM:

Create a login application with following features:

- 1. Successful Login message in TextView with Green background if Username & password is correct**
- 2. Failure message in TextView with Red background if Username or password is incorrect.**
- 3. Disable Login Button after three wrong login attempts.**
- 4. Close application if user selects Cancel Button.**

PROGRAM CODE:

- **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">

    <EditText

        android:id="@+id/Name"

        android:layout_width="wrap_content"
```

```
android:layout_height="wrap_content"

android:ems="10"

android:hint="@string/name"

android:importantForAutofill="no"

android:inputType="textPersonName"

android:minHeight="50dp"

android:textAlignment="center"

android:textColor="#FF9800"

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="0.176" />
```

<EditText

```
android:id="@+id/Password"

android:layout_width="wrap_content"

android:layout_height="wrap_content"

android:ems="10"

android:hint="@string/password"

android:importantForAutofill="no"
```

```
android:inputType="textPassword"

android:minHeight="50dp"

android:textAlignment="center"

android:textColor="#FF5722"

app:layout_constraintBottom_toBottomOf="parent"

app:layout_constraintEnd_toEndOf="parent"

app:layout_constraintHorizontal_bias="0.442"

app:layout_constraintStart_toStartOf="parent"

app:layout_constraintTop_toBottomOf="@+id/Name"

app:layout_constraintVertical_bias="0.144"

tools:ignore="TextContrastCheck,TextContrastCheck" />
```

<Button

```
android:id="@+id/Login"

android:layout_width="wrap_content"

android:layout_height="wrap_content"

android:backgroundTint="#00BCD4"

android:text="@string/login"

android:textColor="#EBEBE7"

app:layout_constraintBottom_toBottomOf="parent"

app:layout_constraintEnd_toEndOf="parent"

app:layout_constraintHorizontal_bias="0.461"

app:layout_constraintStart_toStartOf="parent"

app:layout_constraintTop_toBottomOf="@+id/Password"
```

```
app:layout_constraintVertical_bias="0.163"
```

```
app:rippleColor="#E91E63"
```

```
tools:ignore="TextContrastCheck" />
```

```
<TextView
```

```
    android:id="@+id/attempt"
```

```
    android:layout_width="wrap_content"
```

```
    android:layout_height="wrap_content"
```

```
    android:fontFamily="sans-serif-medium"
```

```
    android:text="@string/number_of_incorrect_attempts"
```

```
    android:textAlignment="center"
```

```
    android:textColor="#DD2C00"
```

```
    android:textSize="16sp"
```

```
    app:layout_constraintBottom_toBottomOf="parent"
```

```
    app:layout_constraintEnd_toEndOf="parent"
```

```
    app:layout_constraintHorizontal_bias="0.455"
```

```
    app:layout_constraintStart_toStartOf="parent"
```

```
    app:layout_constraintTop_toBottomOf="@+id/Login"
```

```
    app:layout_constraintVertical_bias="0.209"
```

```
    tools:ignore="TextContrastCheck,TextContrastCheck"/>
```

```
<TextView
```

```
    android:id="@+id/message"
```

```
    android:layout_width="wrap_content"

    android:layout_height="wrap_content"

    android:fontFamily="serif"

    android:textAlignment="center"

    android:textColor="#BF360C"

    android:textSize="20sp"

    app:layout_constraintBottom_toBottomOf="parent"

    app:layout_constraintEnd_toEndOf="parent"

    app:layout_constraintStart_toStartOf="parent"

    app:layout_constraintTop_toBottomOf="@+id/attempt" />
```

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

- **JAVA CODE:**

```
package com.parthnpatel.login;
```

```
import androidx.appcompat.app.AppCompatActivity;
```

```
import android.os.Bundle;
```

```
import android.graphics.Color;
```

```
import android.os.Bundle;
```

```
import android.view.View;
```

```
import android.widget.Button;
```

```
import android.widget.EditText;
```

```
import android.widget.TextView;
```

```
import android.widget.Toast;
```

```
public class MainActivity extends AppCompatActivity {
```

```
    private EditText Name;
```

```
    private EditText Password;
```

```
private TextView message;

private TextView attempt;

private Button Login;

private int counter = 3;

@Override

protected void onCreate(Bundle savedInstanceState) {

    super.onCreate(savedInstanceState);

    setContentView(R.layout.activity_main);


    Name=findViewById(R.id.Name);

    Password=findViewById(R.id.Password);

    attempt=findViewById(R.id.attempt);

    Login=findViewById(R.id.Login);

    message=findViewById(R.id.message);


    attempt.setText("Attempts Remaining : "+counter);


    Login.setOnClickListener(new View.OnClickListener() {

        @Override

        public void onClick(View view) {

            String enteredName=Name.getText().toString();

            String enteredPassword=Password.getText().toString();


            if(enteredName.isEmpty() || enteredPassword.isEmpty()){
```

```
        Toast.makeText(getApplicationContext(), "Enter the necessary Details Please!!",  
        Toast.LENGTH_SHORT).show();
```

```
    }
```

```
    else{
```

```
        if(enteredName.equals("Parth") && enteredPassword.equals("admin1234")){
```

```
            message.setText("Credentials validated!!\n Logged in !!");
```

```
            message.setBackgroundColor(Color.GREEN);
```

```
        }
```

```
    else{
```

```
        counter--;
```

```
        Toast.makeText(getApplicationContext(), "Enter the Correct Credentials!!",  
        Toast.LENGTH_SHORT).show();
```

```
        attempt.setText("Attempts Remaining : "+counter);
```

```
    }
```

```
}
```

```
if(counter<=0){
```

```
    Login.setEnabled(false);
```

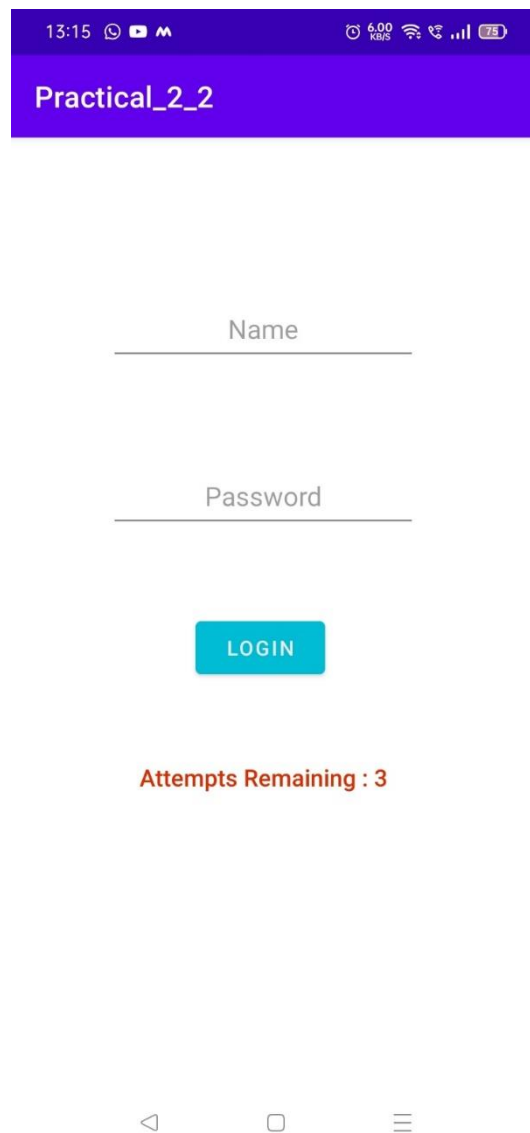
```
}
```



```
message.setText("You have no attempts left for login!!\nPlease Close the app and  
Try Again!!");
```

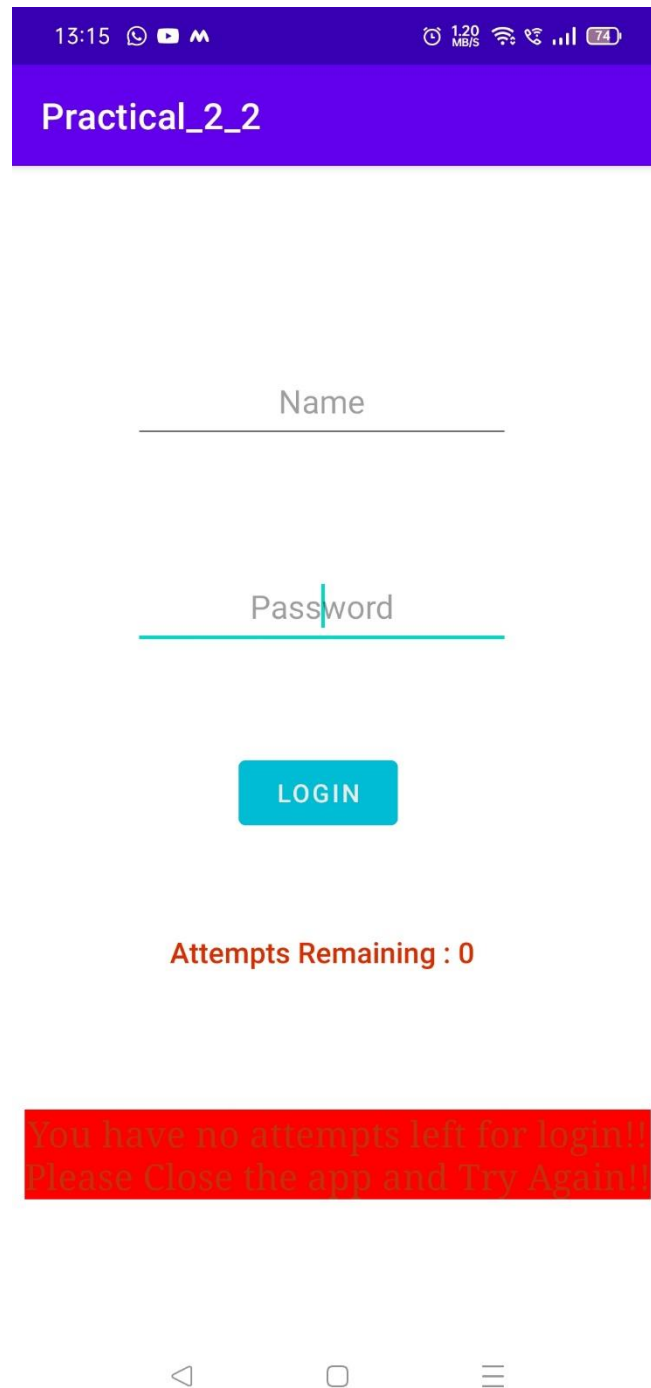
```
message.setBackgroundColor(Color.RED);  
    }  
});  
}  
}
```

OUTPUT:

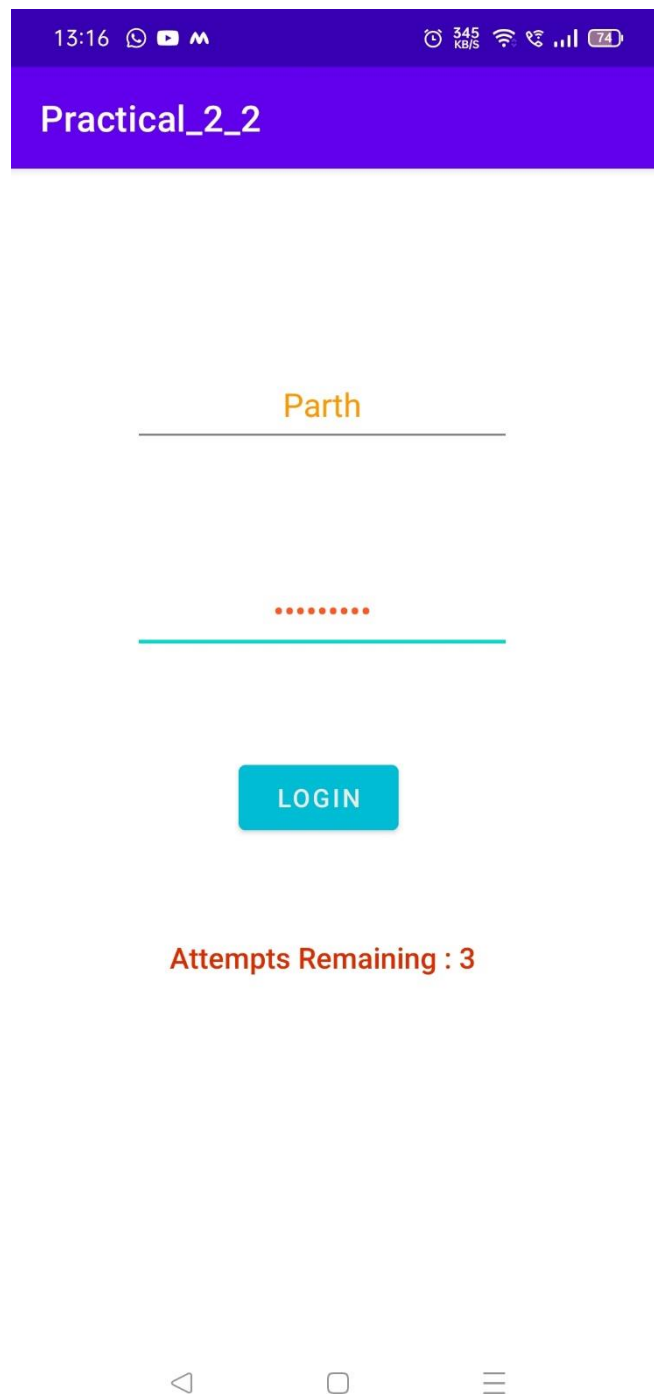


The screenshot shows a mobile application interface. At the top, there is a status bar with the time 13:15, a clock icon, a YouTube icon, a music icon, a speed indicator of 6.00 KB/s, a Wi-Fi icon, a cellular signal icon, and a battery level of 75%. Below the status bar, the title "Practical_2_2" is displayed in white text on a dark blue background. The main content area is white and contains a login form. The form has two input fields: "Name" and "Password", each with a light blue border and a light blue underline. Below the "Password" field is a red "LOGIN" button. Underneath the button, the text "Attempts Remaining : 3" is displayed in red. At the bottom of the screen, there are three navigation icons: a back arrow, a home square, and a menu hamburger icon.

BASIC UI



MESSAGE DISPLAYED WHEN ZERO ATTEMPTS LEFT



A mobile application login screen mockup. At the top is a status bar with the time 13:16, notification icons, network speed (345 KB/S), Wi-Fi, cellular signal, and a 74% battery level. Below the status bar is a purple header with the text "Practical_2_2". The main content area has a light gray background. It features a text input field containing "Parth" with a light blue underline. Below it is a password input field with a light blue underline and a series of red dots for the password. A teal "LOGIN" button is positioned below the password field. Underneath the button, the text "Attempts Remaining : 3" is displayed in a bold, dark red font. At the bottom of the screen are three navigation icons: a left-pointing triangle, a square, and a hamburger menu icon.

EDIT TEXT AND PASSWORD DISPLAY