Slips 9

Q.1] Create an application that allows the user to enter a number in the textbox named ‘getnum’. Check whether the number in the textbox ‘getnum’ is Palindrome or not. Print the message accordingly in the label when the user clicks on the button ‘check’

Ans.

<?xml version="1.0" encoding="utf-8"?>

<RelativeLayout 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">

<EditText android:id="@+id/editTextNumber" android:layout\_width="match\_parent" android:layout\_height="wrap\_content" android:layout\_margin="16dp" android:hint="Enter a number" android:inputType="number" />

<Button android:id="@+id/buttonCheck" android:layout\_width="wrap\_content" android:layout\_height="wrap\_content" android:layout\_below="@id/editTextNumber" android:layout\_centerHorizontal="true" android:layout\_marginTop="16dp" android:text="Check" android:onClick="checkPalindrome" />

<TextView

android:id="@+id/textViewResult" android:layout\_width="wrap\_content" android:layout\_height="wrap\_content" android:layout\_below="@id/buttonCheck" android:layout\_centerHorizontal="true" android:layout\_marginTop="16dp" android:text="" android:textSize="18sp" />

</RelativeLayout>

**MainActivity.java- package** com.example.myapplication;

import android.os.Bundle; import android.view.View; import android.widget.EditText; import android.widget.TextView;

import androidx.appcompat.app.AppCompatActivity;

public class MainActivity extends AppCompatActivity { private EditText editTextNumber; private TextView textViewResult;

@Override

protected void onCreate(Bundle savedInstanceState) { super.onCreate(savedInstanceState); setContentView(R.layout.activity\_main);

editTextNumber = findViewById(R.id.editTextNumber); textViewResult = findViewById(R.id.textViewResult);

}

public void checkPalindrome(View view) {

String numberString = editTextNumber.getText().toString().trim();

if (numberString.isEmpty()) { textViewResult.setText("Please enter a number"); return;

}

int number = Integer.parseInt(numberString); if (isPalindrome(number)) { textViewResult.setText(number + " is a palindrome");

} else {

textViewResult.setText(number + " is not a palindrome");

}

}

private boolean isPalindrome(int number) {

int reversed = 0; int originalNumber = number;

while (number > 0) { int digit = number % 10; reversed = reversed \* 10 + digit; number /= 10;

}

return originalNumber == reversed;

}

}

**Q.2)** Java Android Program to simple Calculators.

Ans

<?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:onClick="sum"  
android:text="Addition"  
app:layout\_constraintBottom\_toBottomOf="parent"  
app:layout\_constraintEnd\_toEndOf="parent"  
app:layout\_constraintHorizontal\_bias="0.143"  
app:layout\_constraintStart\_toStartOf="parent"  
app:layout\_constraintTop\_toTopOf="parent"  
app:layout\_constraintVertical\_bias="0.421" />  
  
<Button  
android:id="@+id/button2"  
android:layout\_width="wrap\_content"  
android:layout\_height="wrap\_content"  
android:onClick="sub"  
android:text="Sub"  
app:layout\_constraintBottom\_toBottomOf="parent"  
app:layout\_constraintEnd\_toEndOf="parent"  
app:layout\_constraintHorizontal\_bias="0.74"  
app:layout\_constraintStart\_toStartOf="parent"  
app:layout\_constraintTop\_toTopOf="parent"  
app:layout\_constraintVertical\_bias="0.431" />  
  
<Button  
android:id="@+id/button3"  
android:layout\_width="wrap\_content"  
android:layout\_height="wrap\_content"  
android:onClick="Mul"  
android:text="MUL"  
app:layout\_constraintBottom\_toBottomOf="parent"  
app:layout\_constraintEnd\_toEndOf="parent"  
app:layout\_constraintHorizontal\_bias="0.143"  
app:layout\_constraintStart\_toStartOf="parent"  
app:layout\_constraintTop\_toTopOf="parent"  
app:layout\_constraintVertical\_bias="0.598" />  
  
<Button  
android:id="@+id/button4"  
android:layout\_width="91dp"  
android:layout\_height="54dp"  
android:text="Div"  
app:layout\_constraintBottom\_toBottomOf="parent"  
app:layout\_constraintEnd\_toEndOf="parent"  
app:layout\_constraintHorizontal\_bias="0.737"  
app:layout\_constraintStart\_toStartOf="parent"  
app:layout\_constraintTop\_toTopOf="parent"  
app:layout\_constraintVertical\_bias="0.595" />  
  
<EditText  
android:id="@+id/editTextText"  
android:layout\_width="127dp"  
android:layout\_height="41dp"  
android:ems="10"  
android:inputType="text"  
android:text="Enter number1"  
app:layout\_constraintBottom\_toBottomOf="parent"  
app:layout\_constraintEnd\_toEndOf="parent"  
app:layout\_constraintHorizontal\_bias="0.104"  
app:layout\_constraintStart\_toStartOf="parent"  
app:layout\_constraintTop\_toTopOf="parent"  
app:layout\_constraintVertical\_bias="0.048" />  
  
<EditText  
android:id="@+id/editTextText2"  
android:layout\_width="132dp"  
android:layout\_height="41dp"  
android:ems="10"  
android:inputType="text"  
android:text="Enter Number 2"  
app:layout\_constraintBottom\_toBottomOf="parent"  
app:layout\_constraintEnd\_toEndOf="parent"  
app:layout\_constraintHorizontal\_bias="0.106"  
app:layout\_constraintStart\_toStartOf="parent"  
app:layout\_constraintTop\_toTopOf="parent"  
app:layout\_constraintVertical\_bias="0.159" />  
  
<EditText  
android:id="@+id/editTextNumber"  
android:layout\_width="154dp"  
android:layout\_height="37dp"  
android:ems="10"  
android:inputType="number"  
app:layout\_constraintBottom\_toBottomOf="parent"  
app:layout\_constraintEnd\_toEndOf="parent"  
app:layout\_constraintHorizontal\_bias="0.891"  
app:layout\_constraintStart\_toStartOf="parent"  
app:layout\_constraintTop\_toTopOf="parent"  
app:layout\_constraintVertical\_bias="0.047" />  
  
<EditText  
android:id="@+id/editTextNumber2"  
android:layout\_width="153dp"  
android:layout\_height="27dp"  
android:ems="10"  
android:inputType="number"  
app:layout\_constraintBottom\_toBottomOf="parent"  
app:layout\_constraintEnd\_toEndOf="parent"  
app:layout\_constraintHorizontal\_bias="0.891"  
app:layout\_constraintStart\_toStartOf="parent"  
app:layout\_constraintTop\_toTopOf="parent"  
app:layout\_constraintVertical\_bias="0.176" />  
</androidx.constraintlayout.widget.ConstraintLayout>

.activitymain.java

package com.example.calci;  
  
import androidx.appcompat.app.AppCompatActivity;  
  
import android.os.Bundle;  
import android.view.View;  
import android.widget.Button;  
import android.widget.EditText;  
import android.widget.Toast;  
  
public class MainActivity extends AppCompatActivity {  
public void sum(View v){  
EditText first = findViewById(R.id.*editTextNumber*);  
EditText first1 = findViewById(R.id.*editTextNumber2*);  
Button add = findViewById(R.id.*button*);  
String a = first.getText().toString();  
String b = first1.getText().toString();  
Integer val1 = Integer.*parseInt*(a);  
Integer val2 = Integer.*parseInt*(b);  
Integer add1 = val1 + val2;  
Toast.*makeText*(getApplicationContext(), "Sum =" + add1, Toast.*LENGTH\_LONG*).show();  
}  
public void sub(View v){  
EditText first = findViewById(R.id.*editTextNumber*);  
EditText first1 = findViewById(R.id.*editTextNumber2*);  
Button add = findViewById(R.id.*button2*);  
String a = first.getText().toString();  
String b = first1.getText().toString();  
Integer val1 = Integer.*parseInt*(a);  
Integer val2 = Integer.*parseInt*(b);  
Integer add1 = val1 - val2;  
Toast.*makeText*(getApplicationContext(), "sub =" + add1, Toast.*LENGTH\_LONG*).show();  
}  
public void mul(View v){  
EditText first = findViewById(R.id.*editTextNumber*);  
EditText first1 = findViewById(R.id.*editTextNumber2*);  
Button add = findViewById(R.id.*button3*);  
String a = first.getText().toString();  
String b = first1.getText().toString();  
Integer val1 = Integer.*parseInt*(a);  
Integer val2 = Integer.*parseInt*(b);  
Integer add1 = val1 \* val2;  
Toast.*makeText*(getApplicationContext(), "Sum =" + add1, Toast.*LENGTH\_LONG*).show();  
}  
public void div(View v){  
EditText first = findViewById(R.id.*editTextNumber*);  
EditText first1 = findViewById(R.id.*editTextNumber2*);  
Button add = findViewById(R.id.*button4*);  
String a = first.getText().toString();  
String b = first1.getText().toString();  
Integer val1 = Integer.*parseInt*(a);  
Integer val2 = Integer.*parseInt*(b);  
Integer add1 = val1 / val2;  
Toast.*makeText*(getApplicationContext(), "Sum =" + add1, Toast.*LENGTH\_LONG*).show();  
}  
  
@Override  
protected void onCreate(Bundle savedInstanceState) {  
super.onCreate(savedInstanceState);  
setContentView(R.layout.*activity\_main*);  
}  
}