

## 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);
}
}
```