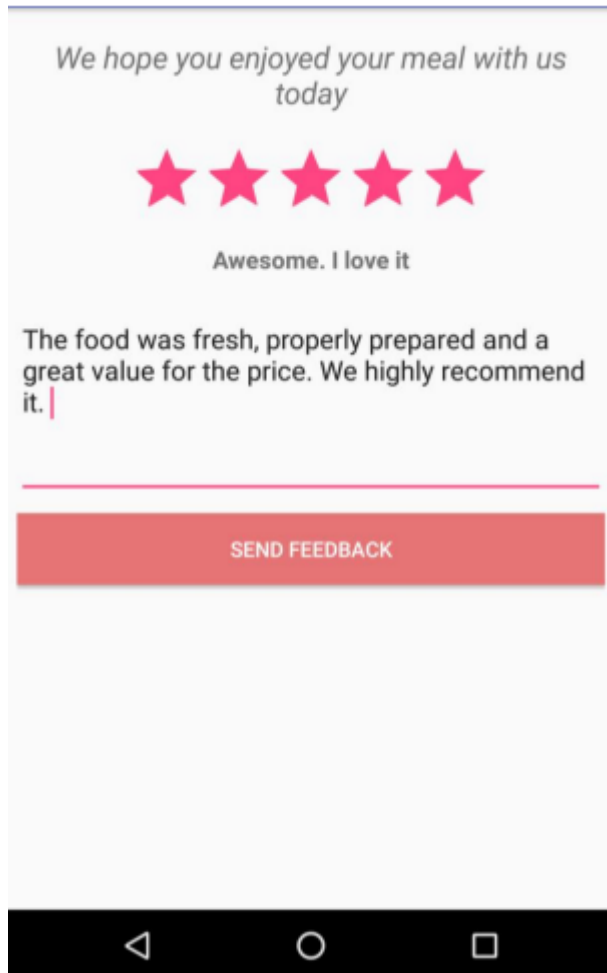# MOBILE COMPUTING LAB

Exercise 3:

Create a Feedback Android app for the given below screen design using any of the layouts.

When rating star is clicked, the below messages should displayed immediately. (that is based on
OnRatingChanged listener). Selection should be whole number (Fraction is not allowed)
5 - Awesome. I love it
4 - Good. Enjoyed it
3 - Satisfied.
2 - Not good. Need improvement
1 - Disappointed. Very poor
Message is required and maximum allowable characters should be 100
When send feedback button is clicked, display the entered message.

Activity_main.xml :

```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:id="@+id/main"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:background="#E71111"
    android:backgroundTint="#FDF7F7"
    android:foregroundTint="#0B0000"
    tools:context=".MainActivity">

    <TextView
        android:id="@+id/textView2"
        android:layout_width="277dp"
        android:layout_height="47dp"
        android:foregroundTint="#FDD3D3"
        android:text="We hope you enjoyed your meal with us today"
        android:textAlignment="center"
        android:textColor="#A88747"
        android:textSize="16sp"
        android:textStyle="italic"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent"
        app:layout_constraintVertical_bias="0.171" />

    <RatingBar
        android:id="@+id/ratingBar"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:progressTint="#F40A0A"
        android:stepSize="1"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintHorizontal_bias="0.438"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent"
        app:layout_constraintVertical_bias="0.301" />

    <TextView
        android:id="@+id/textView"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text=""
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintHorizontal_bias="0.498"
```

```xml
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent"
        app:layout_constraintVertical_bias="0.38" />

    <EditText
        android:id="@+id/editTextTextMultiLine"
        android:layout_width="327dp"
        android:layout_height="85dp"
        android:backgroundTint="#E60F36"
        android:drawableTint="#F86969"
        android:ems="10"
        android:foregroundTint="#FD0D0D"
        android:gravity="start|top"
        android:inputType="textMultiLine"
        android:textColor="#180A0A"
        android:textSize="16sp"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintHorizontal_bias="0.578"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent"
        app:layout_constraintVertical_bias="0.499" />

    <Button
        android:id="@+id/button2"
        android:layout_width="263dp"
        android:layout_height="47dp"
        android:backgroundTint="#ED7676"
        android:text="SEND FEEDBACK"
        app:circularflow_defaultRadius="0dp"
        app:cornerRadius="0dp"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintHorizontal_bias="0.506"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent"
        app:layout_constraintVertical_bias="0.624"
        app:rippleColor="#B41414" />

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

Activity_main2.xml :

```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:id="@+id/main"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    tools:context=".MainActivity2">
```

```xml
    <TextView
        android:id="@+id/textView3"
        android:layout_width="245dp"
        android:layout_height="24dp"
        android:text="The Feedback sent was, "
        android:textColor="#9E691F"
        android:textSize="16sp"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintHorizontal_bias="0.439"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent"
        app:layout_constraintVertical_bias="0.312" />

    <TextView
        android:id="@+id/textView4"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:textAlignment="center"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintHorizontal_bias="0.498"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent"
        app:layout_constraintVertical_bias="0.41" />
</androidx.constraintlayout.widget.ConstraintLayout>
```

MainActivity.kt :

```kotlin
package com.example.feedback

import android.content.Intent
import android.os.Bundle
import android.widget.Button
import android.widget.EditText
import android.widget.RatingBar
import android.widget.TextView
import androidx.activity.enableEdgeToEdge
import androidx.appcompat.app.AppCompatActivity
import androidx.core.view.ViewCompat
import androidx.core.view.WindowInsetsCompat

class MainActivity : AppCompatActivity() {

    private lateinit var ratingBar: RatingBar
    private lateinit var ratingMessage: TextView
    private lateinit var feedbackEditText: EditText
    private lateinit var sendFeedbackButton: Button
    override fun onCreate(savedInstanceState: Bundle?) {
        super.onCreate(savedInstanceState)
        enableEdgeToEdge()
```

```kotlin
        setContentView(R.layout.activity_main)
        ratingBar = findViewById(R.id.ratingBar)
        ratingMessage = findViewById(R.id.textView)
        feedbackEditText = findViewById(R.id.editTextTextMultiLine)
        sendFeedbackButton = findViewById(R.id.button2)

        ratingBar.setOnRatingBarChangeListener { _, rating, _ ->
            val ratingInt = rating.toInt()
            when (ratingInt) {
                5 -> ratingMessage.text = getString(R.string.awesome_text)
                4 -> ratingMessage.text = getString(R.string.good_text)
                3 -> ratingMessage.text = getString(R.string.satisfied_text)
                2 -> ratingMessage.text = getString(R.string.not_good_text)
                1 -> ratingMessage.text =
getString(R.string.disappointed_text)
                else -> ratingMessage.text = ""
            }
        }

        sendFeedbackButton.setOnClickListener {
            val feedback = feedbackEditText.text.toString()
            if (feedback.isEmpty()) {
                feedbackEditText.error =
getString(R.string.feedback_required)
            } else if (feedback.length > 100) {
                feedbackEditText.error =
getString(R.string.feedback_length_error)
            } else {
                val intent = Intent(this, MainActivity2::class.java)
                intent.putExtra("FEEDBACK_MESSAGE", feedback)
                startActivity(intent)
            }
        }
        ViewCompat.setOnApplyWindowInsetsListener(findViewById(R.id.main)) {
v, insets ->
            val systemBars =
insets.getInsets(WindowInsetsCompat.Type.systemBars())
            v.setPadding(systemBars.left, systemBars.top, systemBars.right,
systemBars.bottom)
            insets
        }
    }
}
```

MainActivity2.kt :

```kotlin
package com.example.feedback

import android.os.Bundle
import androidx.activity.enableEdgeToEdge
import androidx.appcompat.app.AppCompatActivity
```

```
import androidx.core.view.ViewCompat
import androidx.core.view.WindowInsetsCompat
import android.widget.TextView
class MainActivity2 : AppCompatActivity() {
    override fun onCreate(savedInstanceState: Bundle?) {
        super.onCreate(savedInstanceState)
        enableEdgeToEdge()
        setContentView(R.layout.activity_main2)
        val feedbackTextView: TextView = findViewById(R.id.textView4)
        val feedback = intent.getStringExtra("FEEDBACK_MESSAGE")
        feedbackTextView.text = feedback
        ViewCompat.setOnApplyWindowInsetsListener(findViewById(R.id.main)) {
v, insets ->
            val systemBars =
insets.getInsets(WindowInsetsCompat.Type.systemBars())
            v.setPadding(systemBars.left, systemBars.top, systemBars.right,
systemBars.bottom)
            insets
        }
    }
}
```

Strings.xml :

```
<resources>
    <string name="app_name">Feedback</string>
    <string name="awesome_text">Awesome. I love it</string>
    <string name="good_text">Good. Enjoyed it</string>
    <string name="satisfied_text">Satisfied.</string>
    <string name="not_good_text">Not good. Need improvement</string>
    <string name="disappointed_text">Disappointed. Very poor</string>
    <string name="feedback_required">Message is required</string>
    <string name="feedback_length_error">Maximum characters allowed is
100</string>
    <string name="feedback_display">Your feedback: %1$s</string>
</resources>
```

Output :

We hope you enjoyed your meal with us today

★★★★☆

Good. Enjoyed it

Very Good Ambience . Great Taste. Excellent Service. Well Done !
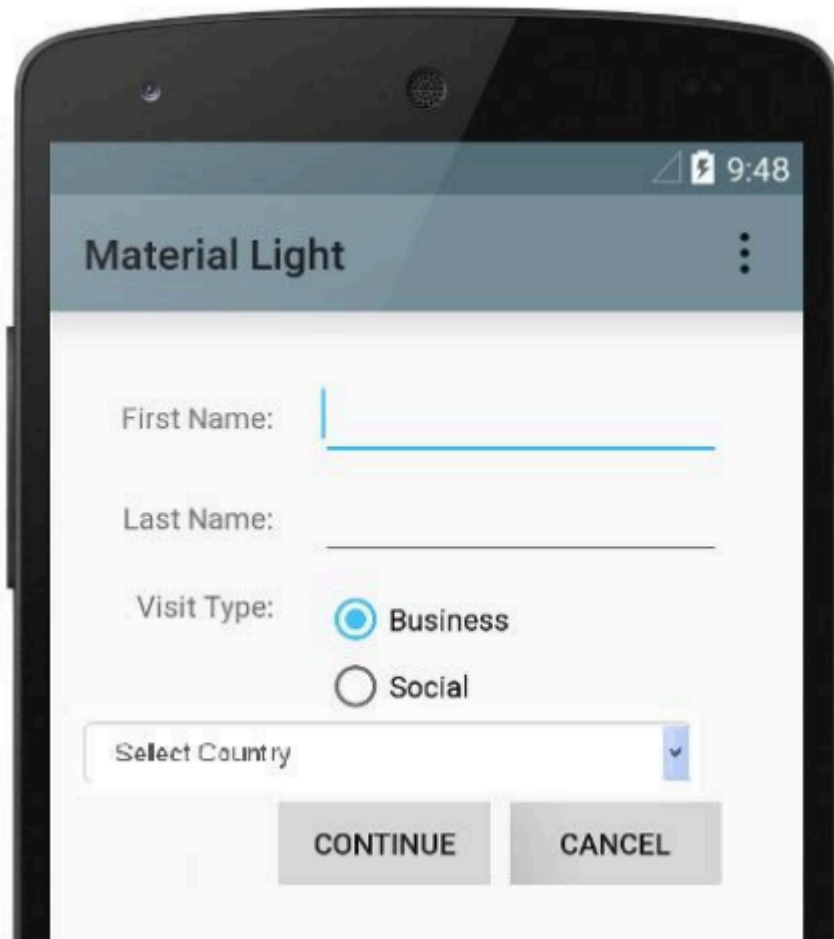
SEND FEEDBACK

The Feedback sent was,

Very Good Ambience . Great Taste. Excellent Service. Well Done !

Exercise 4:

Create an Android app for the given below screen design using any of the layouts.

If continue button is clicked, pass all the information to next screen using Intent and display it
in
a Textview on the next screen.
All fields are required. Validate first name and last name consists of only alphabets. (that is,
special characters are not allowed)

Mainactivity.kt :

```
package com.example.application

import android.os.Bundle
import android.content.Intent
import android.widget.Button
import android.widget.EditText
```

```kotlin
import android.widget.RadioButton
import android.widget.RadioGroup
import android.widget.Spinner
import android.widget.Toast
import androidx.activity.enableEdgeToEdge
import androidx.appcompat.app.AppCompatActivity
import androidx.core.view.ViewCompat
import androidx.core.view.WindowInsetsCompat

class MainActivity : AppCompatActivity() {
    private lateinit var firstNameEditText: EditText
    private lateinit var lastNameEditText: EditText
    private lateinit var visitTypeSpinner: Spinner
    private lateinit var radioGroup: RadioGroup
    private lateinit var continueButton: Button
    override fun onCreate(savedInstanceState: Bundle?) {
        super.onCreate(savedInstanceState)
        enableEdgeToEdge()
        setContentView(R.layout.activity_main)
        firstNameEditText = findViewById(R.id.editTextText)
        lastNameEditText = findViewById(R.id.editTextText2)
        visitTypeSpinner = findViewById(R.id.spinner)
        radioGroup = findViewById(R.id.radioGroup)
        continueButton = findViewById(R.id.button5)
        continueButton.setOnClickListener {

            val firstName = firstNameEditText.text.toString()
            val lastName = lastNameEditText.text.toString()
            if (!isValidName(firstName) || !isValidName(lastName)) {
                Toast.makeText(this, "Please enter valid names (alphabets
only)", Toast.LENGTH_SHORT).show()
                return@setOnClickListener
            }
            val Country = visitTypeSpinner.selectedItem.toString()
            val selectedRadioButtonId = radioGroup.checkedRadioButtonId
            val radioButton =
findViewById<RadioButton>(selectedRadioButtonId)
            val visitType = radioButton?.text.toString()
            val intent = Intent(this, MainActivity2::class.java).apply {
                putExtra("FIRST_NAME", firstName)
                putExtra("LAST_NAME", lastName)
                putExtra("COUNTRY", Country)
                putExtra("VISIT_TYPE", visitType)
            }
            startActivity(intent)
        }
        ViewCompat.setOnApplyWindowInsetsListener(findViewById(R.id.main)) {
v, insets ->
            val systemBars =
insets.getInsets(WindowInsetsCompat.Type.systemBars())
            v.setPadding(systemBars.left, systemBars.top, systemBars.right,
systemBars.bottom)
            insets
```

```
        }

    }
    private fun isValidName(name: String): Boolean {
        // Regular expression to match only alphabets (both uppercase and
lowercase)
        return name.matches(Regex("^[a-zA-Z]+$"))
    }
}
```

Activity_main.xml :

```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:id="@+id/main"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    tools:context=".MainActivity">

    <com.google.android.material.appbar.MaterialToolbar
        android:id="@+id/materialToolbar"
        android:layout_width="442dp"
        android:layout_height="66dp"
        android:background="#6B7F94"
        android:minHeight="?attr/actionBarSize"
        android:theme="?attr/actionBarTheme"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintHorizontal_bias="1.0"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent"
        app:layout_constraintVertical_bias="0.0"
        app:subtitle="       Material Light"
        app:subtitleCentered="false"
        app:subtitleTextAppearance="@style/TextAppearance.AppCompat.Medium"
        app:subtitleTextColor="#0D0606" />

    <TextView
        android:id="@+id/textView"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="First Name: "
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintHorizontal_bias="0.099"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent"
        app:layout_constraintVertical_bias="0.155" />
```

```xml
<TextView
    android:id="@+id/textView2"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="Last Name:"
    app:layout_constraintBottom_toBottomOf="parent"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintHorizontal_bias="0.097"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toTopOf="parent"
    app:layout_constraintVertical_bias="0.221" />

<EditText
    android:id="@+id/editTextText"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:ems="10"
    android:inputType="text"
    android:text=""
    app:layout_constraintBottom_toBottomOf="parent"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintHorizontal_bias="0.532"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toTopOf="parent"
    app:layout_constraintVertical_bias="0.148" />

<EditText
    android:id="@+id/editTextText2"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:ems="10"
    android:inputType="text"
    android:text=""
    app:layout_constraintBottom_toBottomOf="parent"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintHorizontal_bias="0.532"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toTopOf="parent"
    app:layout_constraintVertical_bias="0.214" />

<TextView
    android:id="@+id/textView3"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="Visit Type:"
    app:layout_constraintBottom_toBottomOf="parent"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintHorizontal_bias="0.099"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toTopOf="parent"
    app:layout_constraintVertical_bias="0.308" />
```

```xml
<Spinner
    android:id="@+id/spinner"
    android:layout_width="357dp"
    android:layout_height="42dp"
    android:entries="@array/my_spinner_items"
    app:layout_constraintBottom_toBottomOf="parent"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toTopOf="parent"
    app:layout_constraintVertical_bias="0.461" />

<RadioGroup
    android:id="@+id/radioGroup"
    android:layout_width="157dp"
    android:layout_height="106dp"
    app:layout_constraintBottom_toBottomOf="parent"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintHorizontal_bias="0.425"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toTopOf="parent"
    app:layout_constraintVertical_bias="0.321">

    <RadioButton
        android:id="@+id/radioButton2"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Business" />

    <RadioButton
        android:id="@+id/radioButton"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Social" />
</RadioGroup>

<Button
    android:id="@+id/button5"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:backgroundTint="#A29D9D"
    android:text="CONTINUE"
    android:textColor="#181717"
    android:textColorHighlight="#090909"
    app:cornerRadius="0dp"
    app:layout_constraintBottom_toBottomOf="parent"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintHorizontal_bias="0.473"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toTopOf="parent"
    app:layout_constraintVertical_bias="0.532" />

<Button
    android:id="@+id/button6"
```

```
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:backgroundTint="#A29D9D"
        android:text="CANCEL"
        android:textColor="#161515"
        app:cornerRadius="0dp"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintHorizontal_bias="0.84"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent"
        app:layout_constraintVertical_bias="0.532" />

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

Strings.xml :

```
<resources>
    <string name="app_name">Application</string>
    <string-array name="my_spinner_items">
        <item>Select A Country</item>
        <item>USA</item>
        <item>UK</item>
        <item>India</item>
        <item>Pakistan</item>
    </string-array>
</resources>
```

Activity_main2.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:id="@+id/main"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    tools:context=".MainActivity2">

    <TextView
        android:id="@+id/displayTextView"
        android:layout_width="0dp"
        android:layout_height="wrap_content"
        android:textSize="18sp"
        app:layout_constraintTop_toTopOf="parent"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        android:padding="16dp"/>
```

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

MainActivity2.kt :

```kotlin
package com.example.application

import android.os.Bundle
import android.widget.TextView
import androidx.activity.enableEdgeToEdge
import androidx.appcompat.app.AppCompatActivity
import androidx.core.view.ViewCompat
import androidx.core.view.WindowInsetsCompat

class MainActivity2 : AppCompatActivity() {
    private lateinit var displayTextView: TextView
    override fun onCreate(savedInstanceState: Bundle?) {
        super.onCreate(savedInstanceState)
        enableEdgeToEdge()
        setContentView(R.layout.activity_main2)
        displayTextView = findViewById(R.id.displayTextView)

        // Get data from Intent
        val firstName = intent.getStringExtra("FIRST_NAME")
        val lastName = intent.getStringExtra("LAST_NAME")
        val Country = intent.getStringExtra("COUNTRY")
        val visitType = intent.getStringExtra("VISIT_TYPE")

        // Display the data
        displayTextView.text = "First Name: $firstName\nLast Name:
$lastName\nVisit Type: $visitType\nCountry: $Country"
        ViewCompat.setOnApplyWindowInsetsListener(findViewById(R.id.main)) {
v, insets ->
            val systemBars =
insets.getInsets(WindowInsetsCompat.Type.systemBars())
            v.setPadding(systemBars.left, systemBars.top, systemBars.right,
systemBars.bottom)
            insets
        }
    }
}
```

Output :

Material Light

First Name: Praneetha

Last Name: Muruganantham

Visit Type: ⊙ Business

              ○ Social

India   ▼

[CONTINUE]   [CANCEL]

First Name: Praneetha
Last Name: Muruganantham
Visit Type: Business
Country: India