**[ 2CEIT5PE5: MOBILE APPLICATION DEVELOPMENT]**

**Practical: 4**



**AIM-** What is Intent? Write down types of Intent and types of Intent Action. Create an application which demonstrates ****implicit Intent**** for following features and also create different activities and demonstrate ****explicit Intent****. Use parent theme Theme.Material3.Dark.NoActionBar for Dark theme and Theme.Material3.Light.NoActionBar for Light Theme

1. Make call to specific number

2. Open specific URL

3. Pick up Contact from Existing contact list

4. Open Call Log

5. Open Gallery

6. Set Alarm

7. Open Camera

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Github Link :



**Department of Computer**

**Engineering/Information Technology**

**Activity\_main.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:layout\_width="match\_parent"

android:layout\_height="match\_parent"

tools:context=".MainActivity">

<com.google.android.material.textfield.TextInputLayout

android:id="@+id/webUrl"

android:layout\_width="0dp"

android:layout\_height="wrap\_content"

android:hint="Web Url"

app:startIconDrawable="@drawable/ic\_baseline\_web\_24"

style="@style/Widget.MaterialComponents.TextInputLayout.OutlinedBox"

app:layout\_constraintStart\_toStartOf="parent"

app:layout\_constraintEnd\_toStartOf="@id/button\_browse"

app:layout\_constraintTop\_toTopOf="@id/button\_browse"

app:layout\_constraintBottom\_toBottomOf="@id/button\_browse"

android:layout\_marginHorizontal="25dp">

<com.google.android.material.textfield.TextInputEditText

android:id="@+id/url"

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content"

android:inputType="textImeMultiLine"

/>

</com.google.android.material.textfield.TextInputLayout>

<androidx.appcompat.widget.AppCompatButton

android:id="@+id/button\_browse"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="Browse"

android:layout\_marginHorizontal="10dp"

android:paddingHorizontal="25dp"

android:textColor="@color/white"

android:background="@drawable/btn\_background"

app:layout\_constraintStart\_toEndOf="@id/webUrl"

app:layout\_constraintEnd\_toEndOf="parent"

app:layout\_constraintTop\_toTopOf="parent"

app:layout\_constraintBottom\_toTopOf="@id/button\_call"

/>

<com.google.android.material.textfield.TextInputLayout

android:id="@+id/call"

android:layout\_width="0dp"

android:layout\_height="wrap\_content"

android:hint="Call Number"

app:startIconDrawable="@drawable/ic\_baseline\_phone\_24"

style="@style/Widget.MaterialComponents.TextInputLayout.OutlinedBox"

app:layout\_constraintStart\_toStartOf="parent"

app:layout\_constraintEnd\_toStartOf="@id/button\_call"

app:layout\_constraintTop\_toTopOf="@id/button\_call"

app:layout\_constraintBottom\_toBottomOf="@id/button\_call"

android:layout\_marginHorizontal="25dp">

<com.google.android.material.textfield.TextInputEditText

android:id="@+id/number"

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content"

/>

</com.google.android.material.textfield.TextInputLayout>

<androidx.appcompat.widget.AppCompatButton

android:id="@+id/button\_call"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="Call"

android:background="@drawable/btn\_background"

android:layout\_marginHorizontal="10dp"

android:paddingHorizontal="25dp"

android:textColor="@color/white"

app:layout\_constraintStart\_toEndOf="@id/call"

app:layout\_constraintEnd\_toEndOf="parent"

app:layout\_constraintTop\_toBottomOf="@id/button\_browse"

app:layout\_constraintBottom\_toTopOf="@id/button\_contact"

/>

<com.google.android.material.textfield.TextInputLayout

android:id="@+id/contact"

android:layout\_width="0dp"

android:layout\_height="wrap\_content"

android:hint="Contact List"

app:startIconDrawable="@drawable/ic\_baseline\_folder\_24"

style="@style/Widget.MaterialComponents.TextInputLayout.OutlinedBox"

app:layout\_constraintStart\_toStartOf="parent"

app:layout\_constraintEnd\_toStartOf="@id/button\_contact"

app:layout\_constraintTop\_toTopOf="@id/button\_contact"

app:layout\_constraintBottom\_toBottomOf="@id/button\_contact"

android:layout\_marginHorizontal="25dp">

<com.google.android.material.textfield.TextInputEditText

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content"

/>

</com.google.android.material.textfield.TextInputLayout>

<androidx.appcompat.widget.AppCompatButton

android:id="@+id/button\_contact"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="Contact"

android:background="@drawable/btn\_background"

android:layout\_marginHorizontal="10dp"

android:paddingHorizontal="25dp"

android:textColor="@color/white"

app:layout\_constraintStart\_toEndOf="@id/contact"

app:layout\_constraintEnd\_toEndOf="parent"

app:layout\_constraintTop\_toBottomOf="@id/button\_call"

app:layout\_constraintBottom\_toTopOf="@id/button\_callLog"

/>

<com.google.android.material.textfield.TextInputLayout

android:id="@+id/callLog"

android:layout\_width="0dp"

android:layout\_height="wrap\_content"

android:hint="Call Log"

app:startIconDrawable="@drawable/ic\_baseline\_phone\_forwarded\_24"

style="@style/Widget.MaterialComponents.TextInputLayout.OutlinedBox"

app:layout\_constraintStart\_toStartOf="parent"

app:layout\_constraintEnd\_toStartOf="@id/button\_callLog"

app:layout\_constraintTop\_toTopOf="@id/button\_callLog"

app:layout\_constraintBottom\_toBottomOf="@id/button\_callLog"

android:layout\_marginHorizontal="25dp">

<com.google.android.material.textfield.TextInputEditText

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content"

/>

</com.google.android.material.textfield.TextInputLayout>

<androidx.appcompat.widget.AppCompatButton

android:id="@+id/button\_callLog"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="Call Log"

android:background="@drawable/btn\_background"

android:layout\_marginHorizontal="10dp"

android:paddingHorizontal="25dp"

android:textColor="@color/white"

app:layout\_constraintStart\_toEndOf="@id/callLog"

app:layout\_constraintEnd\_toEndOf="parent"

app:layout\_constraintTop\_toBottomOf="@id/button\_contact"

app:layout\_constraintBottom\_toTopOf="@id/button\_gallery"

/>

<com.google.android.material.textfield.TextInputLayout

android:id="@+id/gallery"

android:layout\_width="0dp"

android:layout\_height="wrap\_content"

android:hint="Gallery"

app:startIconDrawable="@drawable/ic\_baseline\_photo\_24"

style="@style/Widget.MaterialComponents.TextInputLayout.OutlinedBox"

app:layout\_constraintStart\_toStartOf="parent"

app:layout\_constraintEnd\_toStartOf="@id/button\_gallery"

app:layout\_constraintTop\_toTopOf="@id/button\_gallery"

app:layout\_constraintBottom\_toBottomOf="@id/button\_gallery"

android:layout\_marginHorizontal="25dp">

<com.google.android.material.textfield.TextInputEditText

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content"

/>

</com.google.android.material.textfield.TextInputLayout>

<androidx.appcompat.widget.AppCompatButton

android:id="@+id/button\_gallery"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="Gallary"

android:background="@drawable/btn\_background"

android:layout\_marginHorizontal="10dp"

android:paddingHorizontal="25dp"

android:textColor="@color/white"

app:layout\_constraintStart\_toEndOf="@id/gallery"

app:layout\_constraintEnd\_toEndOf="parent"

app:layout\_constraintTop\_toBottomOf="@id/button\_callLog"

app:layout\_constraintBottom\_toTopOf="@id/button\_camera"

/>

<com.google.android.material.textfield.TextInputLayout

android:id="@+id/camera"

android:layout\_width="0dp"

android:layout\_height="wrap\_content"

android:hint="Camera"

app:startIconDrawable="@drawable/ic\_baseline\_camera\_alt\_24"

style="@style/Widget.MaterialComponents.TextInputLayout.OutlinedBox"

app:layout\_constraintStart\_toStartOf="parent"

app:layout\_constraintEnd\_toStartOf="@id/button\_camera"

app:layout\_constraintTop\_toTopOf="@id/button\_camera"

app:layout\_constraintBottom\_toBottomOf="@id/button\_camera"

android:layout\_marginHorizontal="25dp">

<com.google.android.material.textfield.TextInputEditText

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content"

/>

</com.google.android.material.textfield.TextInputLayout>

<androidx.appcompat.widget.AppCompatButton

android:id="@+id/button\_camera"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="Camera"

android:background="@drawable/btn\_background"

android:layout\_marginHorizontal="10dp"

android:paddingHorizontal="25dp"

android:textColor="@color/white"

app:layout\_constraintStart\_toEndOf="@id/camera"

app:layout\_constraintEnd\_toEndOf="parent"

app:layout\_constraintTop\_toBottomOf="@id/button\_gallery"

app:layout\_constraintBottom\_toTopOf="@id/button\_alarm"

/>

<com.google.android.material.textfield.TextInputLayout

android:id="@+id/alarm"

android:layout\_width="0dp"

android:layout\_height="wrap\_content"

android:hint="Alarm"

app:startIconDrawable="@drawable/ic\_baseline\_access\_alarm\_24"

style="@style/Widget.MaterialComponents.TextInputLayout.OutlinedBox"

app:layout\_constraintStart\_toStartOf="parent"

app:layout\_constraintEnd\_toStartOf="@id/button\_alarm"

app:layout\_constraintTop\_toTopOf="@id/button\_alarm"

app:layout\_constraintBottom\_toBottomOf="@id/button\_alarm"

android:layout\_marginHorizontal="25dp">

<com.google.android.material.textfield.TextInputEditText

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content"

/>

</com.google.android.material.textfield.TextInputLayout>

<androidx.appcompat.widget.AppCompatButton

android:id="@+id/button\_alarm"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="Alarm"

android:background="@drawable/btn\_background"

android:layout\_marginHorizontal="10dp"

android:paddingHorizontal="25dp"

android:textColor="@color/white"

app:layout\_constraintStart\_toEndOf="@id/alarm"

app:layout\_constraintEnd\_toEndOf="parent"

app:layout\_constraintTop\_toBottomOf="@id/button\_camera"

app:layout\_constraintBottom\_toBottomOf="parent"

/>

</androidx.constraintlayout.widget.ConstraintLayout>

**MainActivity.kt:**

package com.example.madpractical\_4\_20012011124

import android.content.Intent

import android.net.Uri

import androidx.appcompat.app.AppCompatActivity

import android.os.Bundle

import android.provider.AlarmClock

import android.provider.CallLog

import android.provider.ContactsContract

import android.provider.MediaStore

import android.widget.Toast

import com.example.madpractical\_4\_20012011124.databinding.ActivityMainBinding

class MainActivity : AppCompatActivity() {

private lateinit var binding: ActivityMainBinding

override fun onCreate(savedInstanceState: Bundle?) {

super.onCreate(savedInstanceState)

binding = ActivityMainBinding.inflate(layoutInflater)

setContentView(binding.root)

binding.buttonBrowse.setOnClickListener {

Toast.makeText(this, "Browse Button Clicked", Toast.LENGTH\_SHORT).show()

Intent(Intent.ACTION\_VIEW).setData(Uri.parse("https://${binding.url.text.toString()}")).apply {

startActivity(this)

}

}

binding.buttonCall.setOnClickListener {

Toast.makeText(this, "Call Button Clicked", Toast.LENGTH\_SHORT).show()

Intent(Intent.ACTION\_DIAL).setData(Uri.parse("tel:${binding.number.text.toString()}")).apply {

startActivity(this)

}

}

binding.buttonContact.setOnClickListener {

Toast.makeText(this, "Contact Button Clicked", Toast.LENGTH\_SHORT).show()

Intent(Intent.ACTION\_VIEW).setType(ContactsContract.Contacts.CONTENT\_TYPE).apply {

startActivity(this)

}

}

binding.buttonCallLog.setOnClickListener {

Toast.makeText(this, "Call\_Log Button Clicked", Toast.LENGTH\_SHORT).show()

Intent(Intent.ACTION\_VIEW).setType(CallLog.Calls.CONTENT\_TYPE).apply {

startActivity(this)

}

}

binding.buttonGallery.setOnClickListener {

Toast.makeText(this, "Gallery Button Clicked", Toast.LENGTH\_SHORT).show()

Intent(Intent.ACTION\_VIEW).setType("image/\*").apply {

startActivity(this)

}

}

binding.buttonCamera.setOnClickListener {

Toast.makeText(this, "Camera Button Clicked", Toast.LENGTH\_SHORT).show()

Intent(MediaStore.ACTION\_IMAGE\_CAPTURE).apply {

startActivity(this)

}

}

binding.buttonAlarm.setOnClickListener {

Toast.makeText(this, "Alarm Button Clicked", Toast.LENGTH\_SHORT).show()

Intent(AlarmClock.ACTION\_SHOW\_ALARMS).apply {

startActivity(this)

}

}

}

}

**Output :**



