

Name	Sonu kahar	Roll Number	21302A0053
Subject/ Course:	Advanced Mobile Programming		
Topic	Introduction to Android, Introduction to Android Studio IDE, Application Fundamentals		

Basic Program

1.a) Design a simple "Hello World" Program.

Activity_main:

```
<?xml version="1.0" encoding="utf-8"?>
<androidx.constraintlayout.widget.ConstraintLayout</pre>
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">
    <TextView
        android:layout width="wrap content"
        android:layout_height="wrap_content"
        android:text="Hello World!"
        app:layout constraintBottom toBottomOf="parent"
        app:layout constraintEnd toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent" />
</androidx.constraintlayout.widget.ConstraintLayout>
```

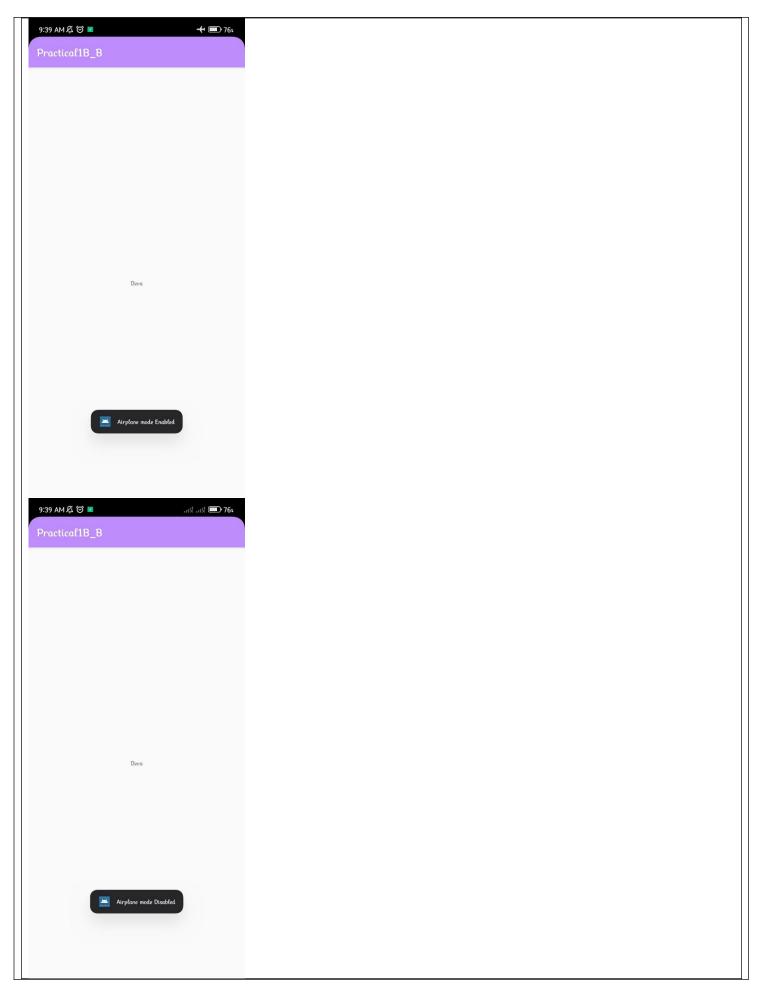
MainAcitivity:

```
package com.example.p;
import androidx.appcompat.app.AppCompatActivity;
import android.os.Bundle;
public class MainActivity extends AppCompatActivity {
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
E.g:
             10 .ad 10 **ad 1 ■ 59s
```

Broadcast Receiver

1.b) Write a program to implement Broadcast Receiver.

```
MainAcitivity
package com.example.practical1b_b
import android.content.Intent
import android.content.IntentFilter
import android.support.v7.app.AppCompatActivity
import android.os.Bundle
class MainActivity : AppCompatActivity() {
    lateinit var receiver:AirplaneModeChanger
    override fun onCreate(savedInstanceState: Bundle?) {
        super.onCreate(savedInstanceState)
        setContentView(R.layout.activity main)
        receiver= AirplaneModeChanger()
        IntentFilter(Intent.ACTION AIRPLANE MODE CHANGED).also {
            registerReceiver(receiver, it)
        }
    }
    override fun onStop() {
        super.onStop()
        unregisterReceiver(receiver)
    }
AirplaneModeChanger (BroadcastReceiver)
package com.example.practical1b b
import android.content.BroadcastReceiver
import android.content.Context
import android.content.Intent
import android.widget.Toast
class airplanemodechange: BroadcastReceiver() {
    override fun onReceive(p0: Context?, p1: Intent?) {
        val isAirplaneEnabled = p1?.getBooleanExtra("state", false)?:return
        if (isAirplaneEnabled)
            Toast.makeText(p0, "Airplane mode Enabled", Toast.LENGTH LONG).show()
        } else
            Toast.makeText(p0, "Airplane mode Disabled", Toast.LENGTH LONG).show()
        }
    }
Output:
```







Name	Sonu kahar	Roll Number	21302A0053
Subject/Course:	Advanced Mobile Programming		
Topic	Programming Resources		

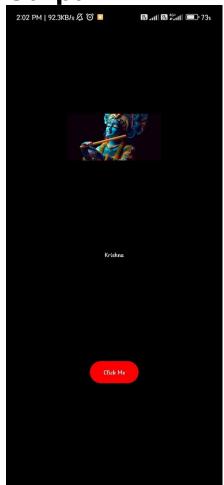
Image and Background

2.a) Design an Activity with an image and its background colour set.

```
Activity main:
<?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"
android:background="@color/bg"
tools:context=".MainActivity">
<TextView
android:id="@+id/textView"
android:layout_width="wrap_content"
android:layout height="wrap content"
android:text="@string/krishna"
android:textColor="@color/textcolor"
app:layout constraintBottom toBottomOf="parent"
app:layout_constraintEnd_toEndOf="parent"
app:layout_constraintStart_toStartOf="parent"
app:layout constraintTop toTopOf="parent" />
< Image View
android:id="@+id/imageView"
android:layout width="170dp"
android:layout height="320dp"
app:layout constraintBottom toTopOf="@+id/textView"
app:layout_constraintEnd_toEndOf="parent"
app:layout constraintStart toStartOf="parent"
app:layout constraintTop toTopOf="parent"
app:srcCompat="@drawable/img1"
tools:ignore="MissingConstraints" />
<Button
android:id="@+id/button"
android:layout width="wrap content"
android:layout_height="wrap_content"
android:backgroundTint="@color/buttonbg"
android:text="@string/click_me"
android:textColor="@color/textcolor"
app:layout_constraintBottom_toBottomOf="parent"
app:layout constraintEnd toEndOf="parent"
app:layout constraintStart toStartOf="parent"
app:layout constraintTop toBottomOf="@+id/textView"
```

```
tools:ignore="MissingConstraints" />
</androidx.constraintlayout.widget.ConstraintLayout>
MainActivity:
package com.example.prac21
import androidx.appcompat.app.AppCompatActivity
import android.os.Bundle
class MainActivity : AppCompatActivity() {
    override fun onCreate(savedInstanceState: Bundle?) {
        super.onCreate(savedInstanceState)
        setContentView(R.layout.activity main)
    }
String:
<resources>
<string name="My_Work">pra2.1</string>
<string name="krishna">Krishna</string>
<string name="click_me">Click Me</string>
</resources>
Color:
<?xml version="1.0" encoding="utf-8"?>
<resources>
<color name="bg">#FF000000</color>
<color name="textcolor">#FFFFFFF</color>
<color name="buttonbg">#FF0000</color>
</resources>
```

Output:

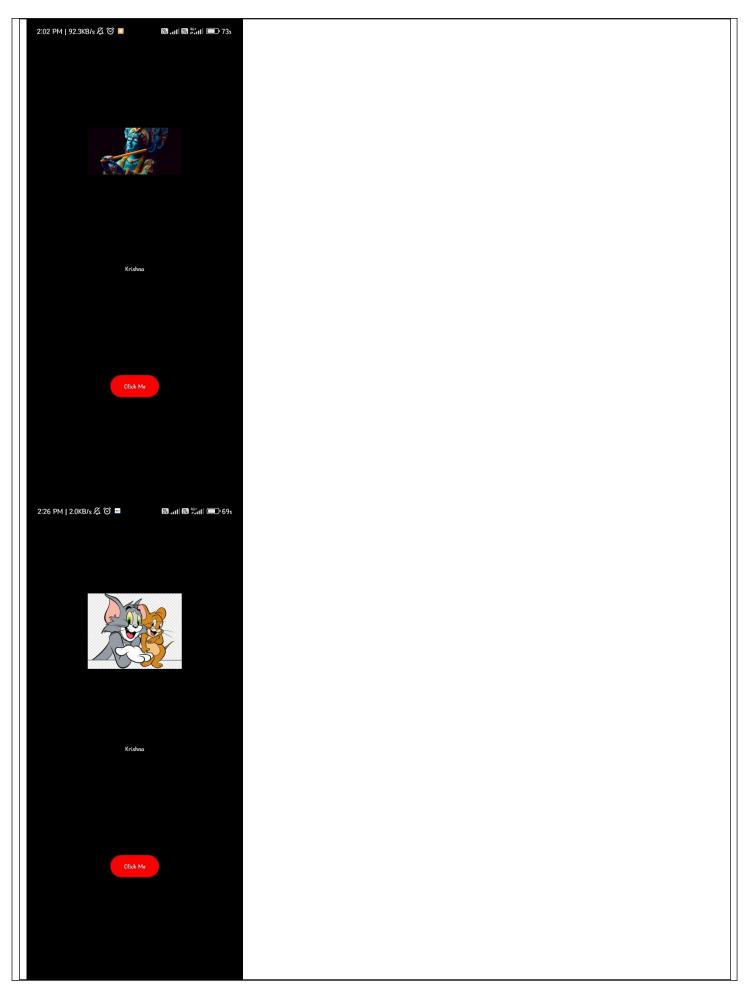


On Click of a Button

Output:

2.b) Design an Activity where on Click of a button the image should change.

```
MainActivity:
package com.example.pra21
import androidx.appcompat.app.AppCompatActivity
import android.os.Bundle
import android.widget.Button
import android.widget.ImageView
class MainActivity : AppCompatActivity() {
override fun onCreate(savedInstanceState: Bundle?) {
super.onCreate(savedInstanceState)
setContentView(R.layout.activity main)
lateinit var imageView: ImageView
lateinit var button: Button
var isImage1 = true
imageView = findViewById(R.id.imageView)
button = findViewById(R.id.button)
button.setOnClickListener {
// Change the image when the button is clicked
if (isImage1) {
imageView.setImageResource(R.drawable.img2)
imageView.setImageResource(R.drawable.img1)
// Toggle the flag to switch between images
islmage1 = !islmage1
```



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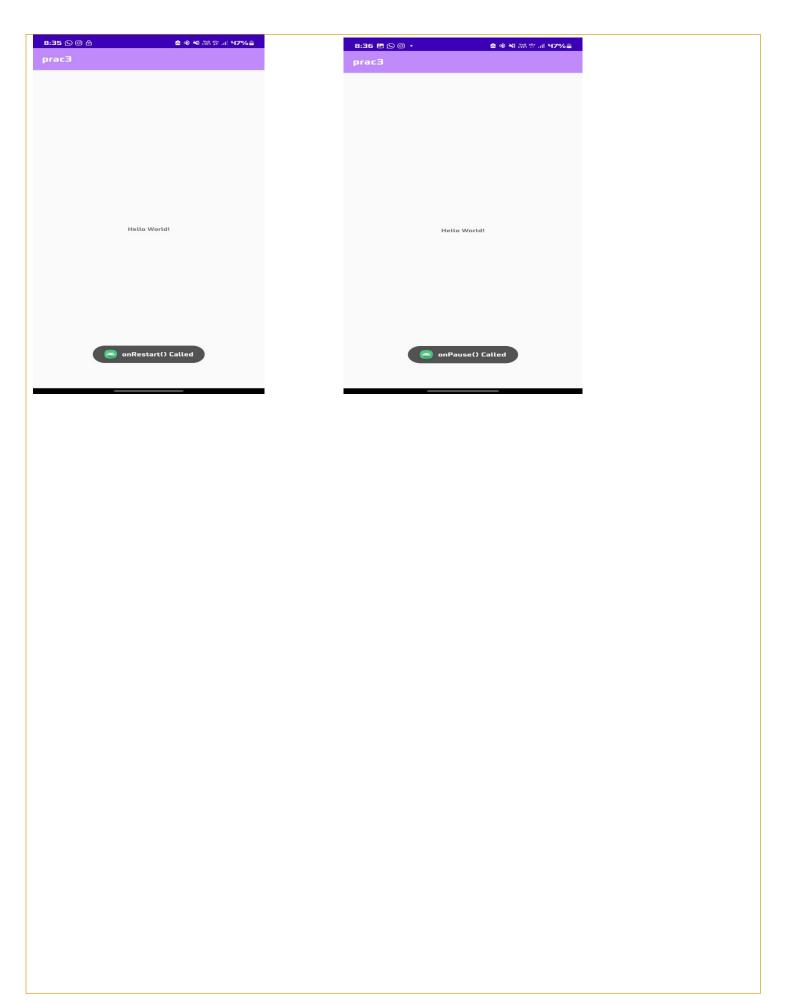


Name	Sonu kahar	Roll Number	21302A0053
Subject/ Course:	Advanced Mobile Programming		
Topic	Programming Activities and Fragmer	nts	

Activity Life Cycle

5.a) To demonstrate the working of Activity and its Life Cycle. package com.example.practical3b

```
import android.support.v7.app.AppCompatActivity
import android.os.Bundle
import android.view.View
class MainActivity : AppCompatActivity() {
private val fragMgr=supportFragmentManager
override fun onCreate(savedInstanceState: Bundle?) {
super.onCreate(savedInstanceState)
setContentView(R.layout.activity main)
fun onClickLogin(view: View){
val fragTrans = fragMgr.beginTransaction()
fragTrans.add(R.id.frameLayout,LoginFragment())
fragTrans.addToBackStack(null)
fragTrans.commit()
fun onClickSignup(view: View){
val fragTrans = fragMgr.beginTransaction()
fragTrans.add(R.id.frameLayout,SignupFragment())
fragTrans.addToBackStack(null)
fragTrans.commit()
```



Fragment Life Cycle

5.b) To demonstrate the working of Fragments and its Life Cycle.





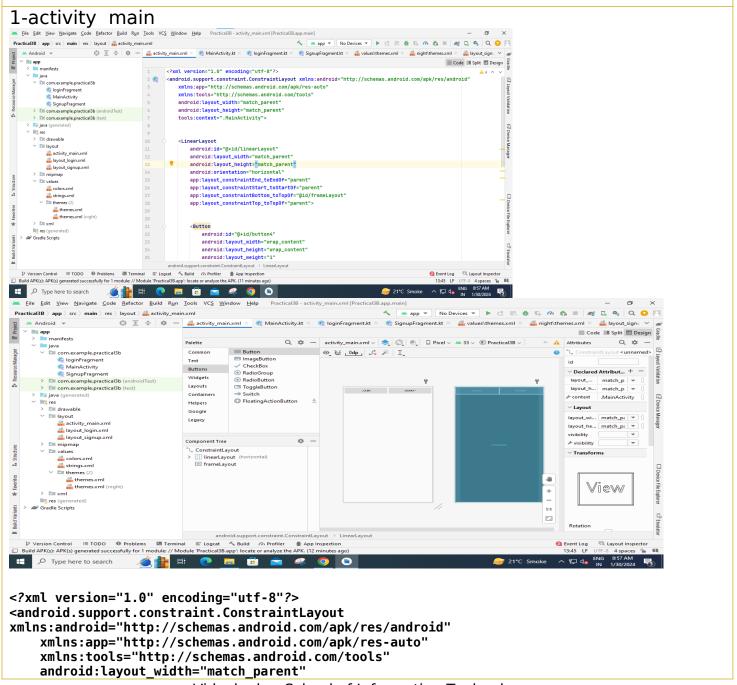




Name	Sonu kahar	Roll Number	21302A0053
Subject/Course:	Advanced Mobile Programming		
Topic	Programs related to different Layouts		

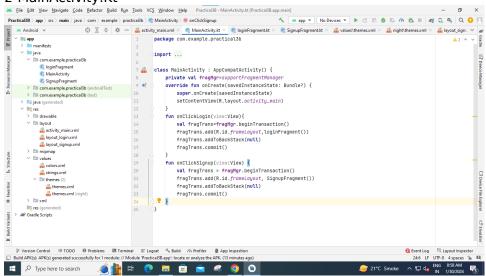
Linear Layout

4.a) To demonstrate Linear Layout.



```
android:layout_height="match_parent"
tools:context=".MainActivity">
    <LinearLayout
        android:id="@+id/linearLayout"
        android:layout width="match parent"
        android: layout height="match parent"
        android:orientation="horizontal"
        app:layout constraintEnd toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintBottom_toTopOf="@id/frameLayout"
        app:layout_constraintTop_toTopOf="parent">
        <Button
            android:id="@+id/button4"
            android:layout width="wrap content"
            android:layout_height="wrap_content"
            android:layout_weight="1"
            android:onClick="onClickLogin"
            android:text="Login" />
        <Button
            android:id="@+id/button3"
            android:layout width="wrap content"
            android:layout_height="wrap_content"
            android:layout_weight="1"
            android:onClick="onClickSignup"
            android:text="Signup" />
    </LinearLayout>
    <FrameLayout</pre>
        android:layout_width="match_parent"
        android:layout_height="match_parent"
        android:id="@+id/frameLayout">
    </FrameLayout>
</android.support.constraint.ConstraintLayout>
```

2-MainActivity.Kt



package com.example.practical3b

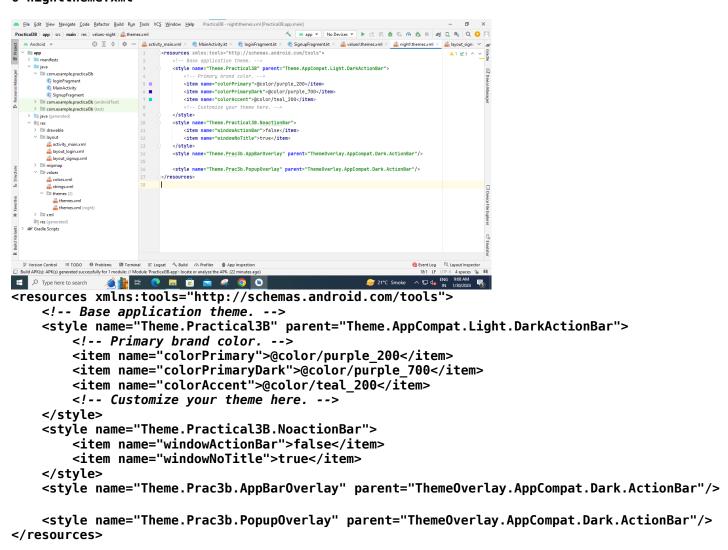
```
import android.support.v7.app.AppCompatActivity
import android.os.Bundle
import android.view.View
class MainActivity : AppCompatActivity() {
     private val fragMgr=supportFragmentManager
     override fun onCreate(savedInstanceState: Bundle?) {
           super.onCreate(savedInstanceState)
           setContentView(R.layout.activity main)
     }
     fun onClickLogin(view:View){
           val fragTrans=fragMgr.beginTransaction()
           fragTrans.add(R.id.frameLayout,loginFragment())
           fragTrans.addToBackStack(null)
           fragTrans.commit()
     fun onClickSignup(view:View) {
           val fragTrans = fragMgr.beginTransaction()
           fragTrans.add(R.id.frameLayout, SignupFragment())
           fragTrans.addToBackStack(null)
           fragTrans.commit()
     }
3-loginfragment.kt
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       🔻 🕄 🖫 🗘 — 🏭 activity_main.xml × 🍖 MainActivity.kt × 🌊 loginFragment.kt × 🚉 SignupFragment.kt × 🏯 values'themes.xml × 👼 night'themes.xml × 👼 layout_sign: 🗸
                          package com.example.practical3b
                       1 package com.example.practicals0
2 import android.os.Bundte import android.support.v4.app.Fragment import android.view.LayoutInflater import android.view.LayoutInflater 2 import android.view.ViewSroup
                       class loginFragment:Fragment() {
    override fun onCreateView(
    inflater: LayoutInflater,
    container: ViewGroup?,
                               savedInstanceState: Bundle?
                               return inflater.inflate(R.layout.layout_login,container, attachToRoot false)
  를 21°C Smoke ^ 덮 w IN 1/30/2024 특3
## \wp Type here to search \wp ## \wp \wp \wp \wp \wp \wp
package com.example.practical3b
import android.os.Bundle
import android.support.v4.app.Fragment
import android.view.LayoutInflater
import android.view.View
import android.view.ViewGroup
class loginFragment:Fragment() {
     override fun onCreateView(
           inflater: LayoutInflater,
           container: ViewGroup?,
           savedInstanceState: Bundle?
     ): View? {
           return inflater.inflate(R.layout.layout login,container,false)
     }
4-signupFragment.kt
```

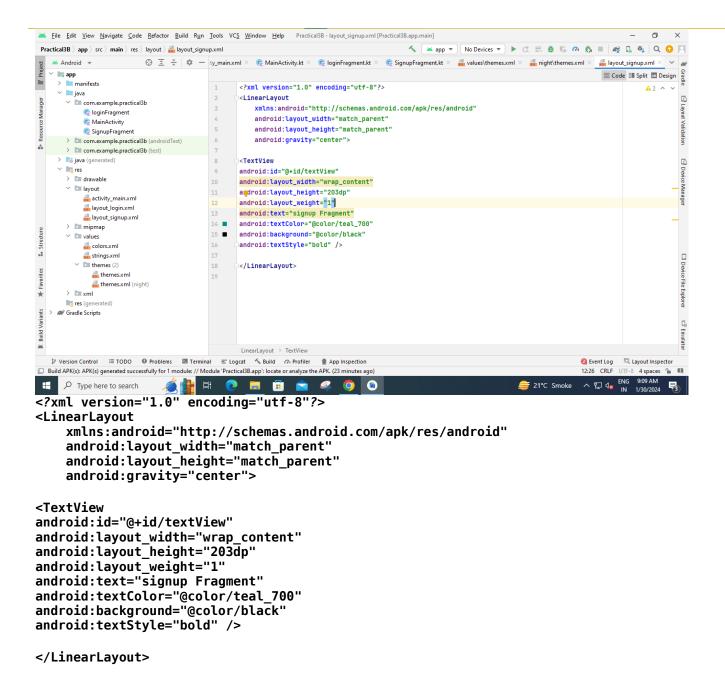
```
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                                                       👅 Android 🔻 🔞 🖫 💠 — 🛔 activity_main.xml × 🔞 MainActivity.kt × 🔞 loginFragment.kt × 🐧 SignupFragment.kt × 🛔 valueSthemes.xml × 🛔 night/themes.xml × 🛔 layout_sign: 🗸
                              package com.example.practical3b
                             import ...
      inflater: LayoutInflater,
container: ViewGroup?,
                                return inflater.inflate(R.layout.layout_login,container, attachToRoot false) }
를 21°C Smoke ヘ밑 4x IN 1/30/2024
package com.example.practical3b
import android.os.Bundle
import android.support.v4.app.Fragment
import android.view.LayoutInflater
import android.view.View
import android.view.ViewGroup
class SignupFragment:Fragment(){
      override fun onCreateView(
            inflater: LayoutInflater,
            container: ViewGroup?,
            savedInstanceState: Bundle?
      ): View? {
            return inflater.inflate(R.layout.layout login,container,false)
5-value/themes.xml
≚ File Edit View Navigate Code Refactor Build Run Tools VCŞ Window Help Practical38 - values\themes.xml [Practical38.app.main]
                                                      Practical3B > app > src > main > res > values > and themes.xml
                         xml × 👰 MainActivity.kt × 👰 loginFragment.kt × 👰 SignupFragment.kt × 📠 values\themes.xml × 👼 night\themes.xml × 🍰 layout.sign. ∨ 🙀
    <!-- Primary brand color. -->
:item name="colorPrimary"@eclor/purple_500</item>
:item name="colorPrimaryDark">@color/purple_700</item>
:item name="colorAccent">@color/tem2_000</item>
<!-- Customize your theme here. -->
</style>
                                <iten name="windowActions">false(iten)
<iten name="windowActions">false(iten)
<iten name="windowHoTitle">frue</iten>
<ityle>
<style name="Theme.Prac35.AppBarOverlay" parent="ThemeOverlay.AppCompat.Bark.ActionBar"/>
                                 <style name="Theme.Prac3b.PopupOverlay" parent="ThemeOverlay.AppCompat.Dark.ActionBar"/>
 를 21°C Smoke ∧ 및 4 ENG 9:07 AM N 1/30/2024
## P Type here to search
<resources xmlns:tools="http://schemas.android.com/tools">
      <!-- Base application theme. -->
      <style name="Theme.Practical3B" parent="Theme.AppCompat.Light.DarkActionBar">
            <!-- Primary brand color. -->
            <item name="colorPrimary">@color/purple_500</item>
            <item name="colorPrimaryDark">@color/purple 700</item>
            <item name="colorAccent">@color/teal 200</item>
             <!-- Customize your theme here. -->
      </style>
      <style name="Theme.Practical3B.NoactionBar">
```

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6-nighttheme.xml

</resources>





Output-

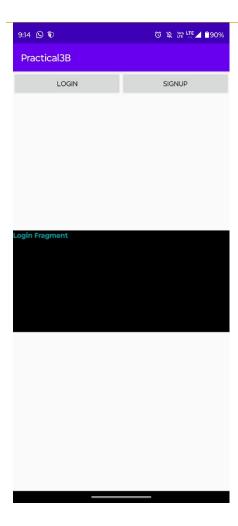


Table Layout

4.b) To demonstrate Table Layout.

```
MAIN.xml
```

```
<?xml version="1.0" encoding="utf-8"?>
<androidx.constraintlayout.widget.ConstraintLayout</pre>
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">
    <LinearLayout
        android:layout width="409dp"
        android:layout height="wrap content"
        android:orientation="vertical"
        tools:layout editor absoluteX="1dp"
        tools:layout_editor_absoluteY="1dp">
        <TextView
            android:id="@+id/textView"
            android:layout width="match parent"
            android:layout_height="wrap_content"
            android:text="Login page" />
        <EditText
            android:layout width="match parent"
            android:layout height="wrap content"
            android:id="@+id/editname"
            android:hint="enter your name"
            android:inputType="text" />
        <EditText
            android:layout width="match parent"
            android:layout height="wrap content"
            android:id="@+id/editpass"
            android:hint="enter password"
            android:inputType="text" />
        <LinearLayout
            android:layout width="match parent"
            android:layout_height="match_parent"
            android:orientation="horizontal">
            <Button
                android:id="@+id/btnsubmit"
                android:layout width="wrap content"
                android:layout_height="wrap_content"
                android:layout weight="1"
                android:text="SUBMIT" />
            <Button
                android:id="@+id/btnreset"
                android:layout width="wrap content"
```

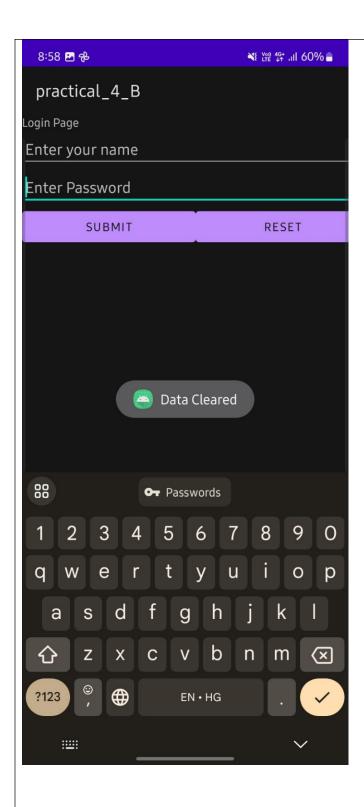
```
android:layout_height="wrap_content"
                      android:layout_weight="1"
                      android:text="RESET" />
           </LinearLayout>
     </LinearLayout>
</androidx.constraintlayout.widget.ConstraintLayout>
<u>File Edit View Navigate Code Refactor Build Run Tools VCS Window Help</u> randi1-activity_main.xml [randi1.app.main]
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Kt file:-
package com.example.randi1
import androidx.appcompat.app.AppCompatActivity
import android.os.Bundle
import android.widget.Button
import android.widget.EditText
import android.widget.Toast
abstract class MainActivity : AppCompatActivity() {
     override fun onCreate(savedInstanceState: Bundle?) {
           super.onCreate(savedInstanceState)
           setContentView(R.layout.activity_main)
           val submitbtn = findViewById<Button>(R.id.btnsubmit)
           val resetbtn = findViewById<Button>(R.id.btnreset)
           val name = findViewById<EditText>(R.id.editname)
           val pass = findViewById<EditText>(R.id.editpass)
           submitbtn.setOnClickListener() {
                 Toast.makeText(this, "Data Submitted",Toast.LENGTH_SHORT).show()
           }
           resetbtn.setOnClickListener() {
                 name.editableText.clear()
```

```
pass.editableText.clear()
        }
    }
}
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Enter Password
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                                RESET
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Name	Sonu kahar	Roll Number	21302A0053
Subject/ Course:	Advanced Mobile Programming		
Topic	Programming UI Elements		

Application Bar

7.a) Design a mobile application to demonstrate working of App Bar **Code:**

```
package com.example.prac5b
import androidx.appcompat.app.AppCompatActivity
import android.os.Bundle
import android.view.Menu
import android.view.MenuItem
import android.widget.Toast
class MainActivity : AppCompatActivity() {
override fun onCreate(savedInstanceState: Bundle?) {
super.onCreate(savedInstanceState)
setContentView(R.layout.activity main)
val meraBar = supportActionBar
meraBar!!.title="Maza Navin Action Bar"
meraBar.subtitle="Navin Ahe"
meraBar.setIcon(R.drawable.zoro)
meraBar.setDisplayUseLogoEnabled(true)
meraBar.setDisplayShowHomeEnabled(true)
}
override fun onCreateOptionsMenu(menu: Menu?): Boolean {
menuInflater.inflate(R.menu.menu1, menu)
return super.onCreateOptionsMenu(menu)
}
override fun onOptionsItemSelected(item: MenuItem): Boolean {
when(item.itemId){
R.id.Copy -> Toast.makeText(this, "copy", Toast.LENGTH LONG).show()
R.id.Zoro -> Toast.makeText(this, "zoro", Toast.LENGTH LONG).show()
R.id.location -> Toast.makeText(this, "location", Toast.LENGTH LONG).show()
```

```
R.id.search -> Toast.makeText(this, "search", Toast.LENGTH_LONG).show()
}
return super.onOptionsItemSelected(item)
}
}
XML Code:
<?xml version="1.0" encoding="utf-8"?>
<manifest xmlns:android="http://schemas.android.com/apk/res/android"</pre>
xmlns:tools="http://schemas.android.com/tools"
package="com.example.prac5b">
<application
android:allowBackup="true"
android:dataExtractionRules="@xml/data_extraction_rules"
android:fullBackupContent="@xml/backup rules"
android:icon="@mipmap/ic_launcher"
android:label="@string/app name"
android:roundlcon="@mipmap/ic launcher round"
android:supportsRtl="true"
android:theme="@style/Theme.Prac5b"
tools:targetApi="31">
<activity
android:name=".MainActivity"
android:exported="true">
<intent-filter>
<action android:name="android.intent.action.MAIN" />
<category android:name="android.intent.category.LAUNCHER" />
</intent-filter>
</activity>
</application>
</manifest>
Menu code:
<?xml version="1.0" encoding="utf-8"?>
<menu xmlns:android="http://schemas.android.com/apk/res/android"</pre>
xmlns:app="http://schemas.android.com/apk/res-auto"
xmlns:tools="http://schemas.android.com/tools">
<item android:id="@+id/search"
android:title="Search"
android:icon="@drawable/png"
app:showAsAction="always"
android:orderInCategory="100"/>
```

```
<item android:id="@+id/location"
android:title="Location"
android:icon="@drawable/img"
app:showAsAction="ifRoom"
android:orderInCategory="101"/>

<item android:id="@+id/Copy"
android:title="Copy"
android:icon="@drawable/download"
app:showAsAction="never"
android:orderInCategory="102"/>

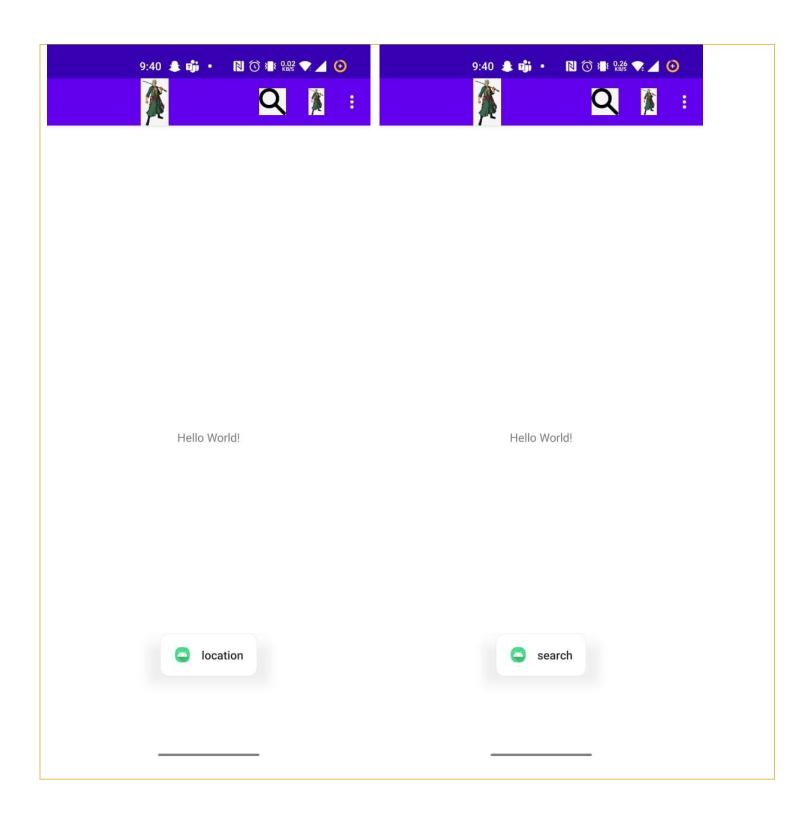
<item android:id="@+id/Zoro"
android:title="Zoro"
android:icon="@drawable/zoro"
android:icon="@drawable/zoro"
app:showAsAction="always"
android:orderInCategory="103"/>
```

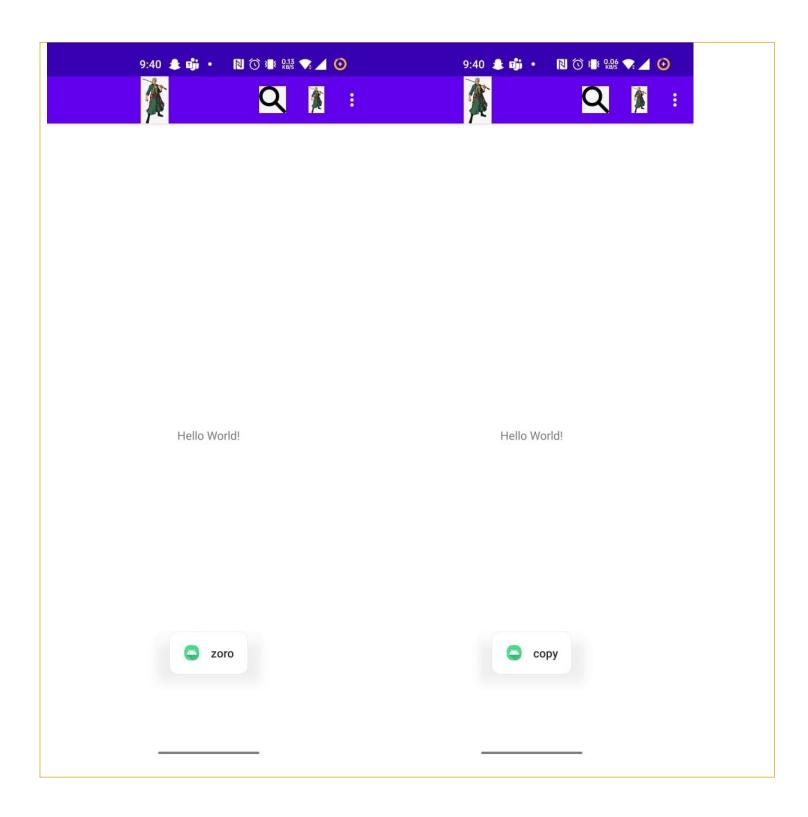
Resource Code:

```
<resources>
<string name="app_name">NBS</string>
</resources>
```

Output:

</menu>





Login Form

7.b) Design a mobile application to create a login form

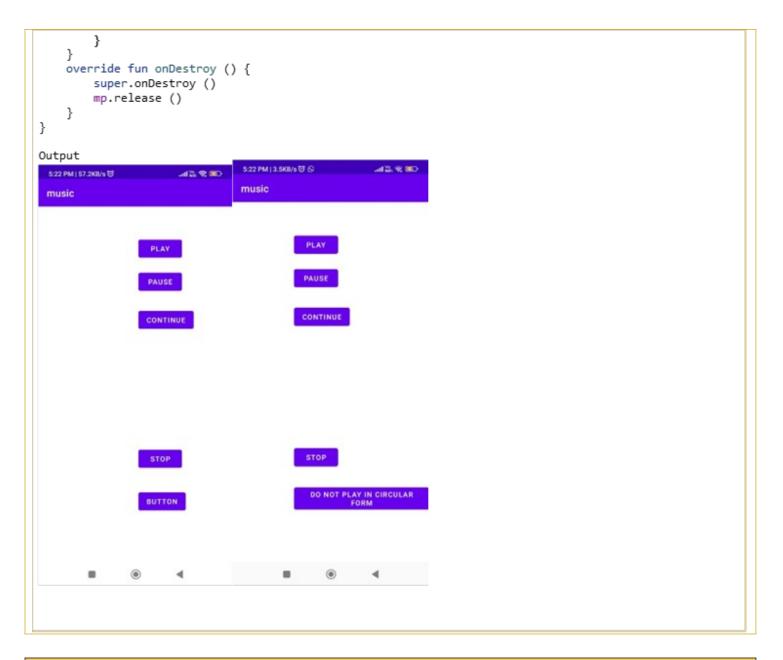


Name	Sonu kahar	Roll Number	21302A0053
Subject/Course:	Advanced Mobile Programming		
Topic	Programming Media API and Telephone API		

Media API

```
10.a) To create a program to access music (media) in your mobile phone.
<?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"
                                         android:gravity="center"
android:orientation="vertical"
                                tools:context=".MainActivity">
    <Button
        android:id="@+id/button1"
android:layout width="wrap content"
android:layout_height="wrap_content"
android:layout alignParentStart="true"
android:layout alignParentTop="true"
android:layout marginStart="122dp"
android:layout marginTop="61dp"
android:text="Play"
        tools:ignore="HardcodedText" />
    <Button
        android:id="@+id/button2"
android:layout width="wrap content"
android:layout_height="wrap_content"
android:layout_alignStart="@+id/button1"
android:layout_alignParentTop="true"
android:layout marginTop="128dp"
android:text="Pause" />
    <Button
        android:id="@+id/button3"
android:layout width="wrap content"
android:layout height="wrap content"
android:layout_alignStart="@+id/button1"
android:layout_alignParentTop="true"
android:layout_marginTop="205dp"
android:text="Continue" />
        android:text="Stop"
                                    android:layout width="wrap content"
android:layout_height="wrap_content"
                                             android:layout alignParentBottom="true"
android:id="@+id/button4"
        android:layout alignStart="@+id/button1"
                                                         android:layout marginBottom="186dp"/>
    <Button
        android:text="Button"
                                      android:layout width="wrap content"
android:layout_height="wrap_content"
                                             android:layout_alignParentBottom="true"
android:id="@+id/button5"
                                  android:layout_alignStart="@+id/button1"
android:layout_marginBottom="100dp"/>
</RelativeLayout>
```

```
MainAcitivity.kt
package com.example.music
import android.os.Bundle import android.media.MediaPlayer import
android.widget.Button
import androidx.appcompat.app.AppCompatActivity
class MainActivity : AppCompatActivity() {
                                             private lateinit var mp:
MediaPlayer
    override fun onCreate(savedInstanceState: Bundle?) {
super.onCreate(savedInstanceState)
                                           setContentView(R.layout.activity main)
mp = MediaPlayer.create (this,R.raw.song1)
                                                   mp = MediaPlayer.create
                         var position = 0
                                                  val button1 = findViewById
(this,R.raw.song)
(R.id.button1) as Button
                                val button2 = findViewById (R.id.button2) as Button
                                                           val button4 = findViewById
val button3 = findViewById (R.id.button3) as Button
                                val button5 = findViewById (R.id.button5) as Button
(R.id.button4) as Button
button1.setOnClickListener {
                                        mp.start ()
            if (button5.text == "Do not play in a circular way")
                                                                                  mp.isLooping
= false
                   else
                mp.isLooping = true
                      button2.setOnClickListener {
                                                                  if
(mp.isPlaying ()) {
                position = mp.getCurrentPosition ()
                                                                    mp.pause ()
        button3.setOnClickListener {
                                                 if (mp.isPlaying () ==
false) {
                        mp.seekTo (position)
                                                             mp.start ()
        button4.setOnClickListener {
                                                 mp.pause ()
position = 0
                        mp.seekTo (0)
        button5.setOnClickListener {
                                                     "Do not
                             if
                                (button5.text
                                                                play
                                                                      in a circular
button5.setText ("Play in circular form")
                                                      else
                button5.setText ("Do not play in circular form")
```



Telephone API

10.b) To create a program that uses the calling feature of android mobile phones.

```
Acitivity main.xml
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout
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"
    android:orientation="vertical" >
    <TextView
android:layout_width="wrap_content"
android:layout_height="131dp"
android:text="Type number to call"
android:textAlignment="center"
android:textSize="36sp"
android:textStyle="bold" />
    <EditText
        android:id="@+id/phoneno"
android:layout width="match parent"
android:layout_height="wrap_content"
android:hint="Mobile numbur
android:inputType="phone"
        tools:ignore="Missing" />
    <Button
android:layout width="match_parent"
android:layout_height="wrap_content"
android:id="@+id/btncall"
android:text="Call"
</LinearLayout>
MainAcitivity.kt
package com.example.prac123
import android.content.Intent
import android.content.pm.PackageManager
import android.content.pm.PackageManager.PERMISSION GRANTED
import android.net.Uri
import
android.support.v7.app.AppCompatActivity
import android.os.Bundle import
android.support.v4.app.ActivityCompat
import
android.support.v4.content.ContextCompat
import
android.support.v7.app.AppCompatCallback
import android.widget.Button import
android.widget.EditText import
android.widget.Toast import
java.util.jar.Manifest
class MainActivity : AppCompatActivity() {
                                                private lateinit var btnphoneCall: Button
private lateinit var editphoneNO:EditText
                                               private var requestCall=1
    override fun onCreate(savedInstanceState: Bundle?)
          super.onCreate(savedInstanceState)
setContentView(R.layout.activity main)
title="Mera calling App"
editphoneNO=findViewById(R.id.phoneno)
btnphoneCall=findViewById(R.id.btncall)
btnphoneCall.setOnClickListener(){
makecall()
```

```
private fun makecall(){
callinggo:String=editphoneNO.text.toString()
                                                     if
(callinggo.trim{it<=' '}.isNotEmpty()){</pre>
if(ContextCompat.checkSelfPermission(this,
android.Manifest.permission.CALL PHONE)!=PackageManager.PERMISSION GRANTED){
ActivityCompat.requestPermissions(this,
arrayOf(android.Manifest.permission.CALL PHONE), requestCall)
else{
            val dial="tel:$callinggo"
            startActivity(Intent(Intent.ACTION CALL, Uri.parse(dial)))
            else{
                Toast.makeText(this,"Enter phone
numbur", Toast.LENGTH LONG).show()
    override fun onRequestPermissionsResult(
requestCode: Int,
                   permissions: Array<out String>,
grantResults: IntArray
    ) {
        if (requestCode == requestCall) {
                                                              (grantResults.isNotEmpty()
grantResults[0]==PackageManager.PERMISSION GRANTED) {
                                                                       makecall()
                                  Toast.makeText(this, "Permission Denied to make call",
Toast.LENGTH LONG).show()
AndroidMainfest.xml
<?xml version="1.0" encoding="utf-8"?>
<manifest xmlns:android="http://schemas.android.com/apk/res/android"</pre>
xmlns:tools="http://schemas.android.com/tools"
package="com.example.prac123">
    <uses-permission android:name="android.permission.CALL PHONE" />
    <application
        android:allowBackup="true"
        android:dataExtractionRules="@xml/data extraction rules"
android:fullBackupContent="@xml/backup_rules"
android:icon="@mipmap/ic_launcher"
android:label="@string/app_name"
        android:roundIcon="@mipmap/ic_launcher_round"
android:supportsRtl="true"
android:theme="@style/Theme.Prac123"
tools:targetApi="31">
                              android: name=".MainActivity"
        <activity
android:exported="true">
```

