

[2CEIT5PE18: MOBILE APPLICATION DEVELOPMENT]

Practical: 2

**AIM-Create Android Application to demonstrate
functions of Activity Life Cycle and Basic UI.**

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Create a “Hello World” application which has a yellow layout background with red color,20sp font size and display text on the center of the screen .

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:id="@+id/main"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:background="#ffff00"
    tools:context=".MainActivity">

    <TextView
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Hello World!"
        android:textColor="#00ddff"
        android:textSize="25dp"
        android:textStyle="bold|italic"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
```

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```
    app:layout_constraintTop_toTopOf="parent" />

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

MainActivity.kt

```
package com.bytemap.mad_23012011026_practical2

import android.os.Bundle
import android.util.Log
import android.widget.Toast
import androidx.activity.enableEdgeToEdge
import androidx.appcompat.app.AppCompatActivity
import androidx.core.view.ViewCompat
import androidx.core.view.WindowInsetsCompat
import com.google.android.material.snackbar.Snackbar

class MainActivity : AppCompatActivity() {
    val TAG = "MainActivity"
    override fun onCreate(savedInstanceState: Bundle?) {
        super.onCreate(savedInstanceState)
        enableEdgeToEdge()
        setContentView(R.layout.activity_main)
        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
        }
        showMessage("onCreate called")
        Toast.makeText(this, "onCreate called", Toast.LENGTH_SHORT).show()
        showSnackbar("onCreate called")
    }

    fun showMessage(message: String) {
        Log.i(TAG, "showMessage: $message")
        Toast.makeText(this, message, Toast.LENGTH_SHORT).show()
    }

    fun showSnackbar(message: String) {
        val rootView = findViewById<android.view.View>(R.id.main)
        Snackbar.make(rootView, message, Snackbar.LENGTH_SHORT).show()
    }

    override fun onRestart() {
```

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```
showMessage("onRestart called")
showSnackbar("onRestart called")
super.onRestart()
}

override fun onStart() {
    showMessage("onStart called")
    showSnackbar("onStart called")
    super.onStart()
}

override fun onResume() {
    showMessage("onResume called")
    showSnackbar("onResume called")
    super.onResume()
}

override fun onPause() {
    showMessage("onPause called")
    showSnackbar("onPause called")
    super.onPause()
}

override fun onStop() {
    showMessage("onStop called")
    showSnackbar("onStop called")
    super.onStop()
}

override fun onDestroy() {
    showMessage("onDestroy called")
    showSnackbar("onDestroy called")
    super.onDestroy()
}
```

Output:

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