

Practical 17

Mobile Application Development

Question 1. Write a program to create a HelloWorld Activity using all lifecycles methods to display messages using Log.d.

MainActivity.java

```
package com.example.practical17;
import androidx.appcompat.app.AppCompatActivity;
import android.os.Bundle;
import android.util.Log;
public class MainActivity extends AppCompatActivity {
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        Log.d("Activity life cycle", "onCreate called");
    }
    protected void onStart()
    {
        super.onStart();
        Log.d("Activity life cycle", "onStart called");
    }
    protected void onResume()
    {
        super.onResume();
        Log.d("Activity life cycle", "onResume called");
    }
    protected void onPause()
    {
        super.onPause();
        Log.d("Activity life cycle", "onPause called");
    }
    protected void onStop()
    {
        super.onStop();
        Log.d("Activity life cycle", "onStop called");
    }
    protected void onDestroy()
    {
        super.onDestroy();
        Log.d("Activity life cycle", "onDestroy called");
    }
}
```

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">

    <TextView
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Activity Life Cycle"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent" />

</androidx.constraintlayout.widget.ConstraintLayout>

```

Output

```

2023-03-18 Activity life cycle      D onCreate called
2023-03-18 Activity life cycle      D onStart called
2023-03-18 Activity life cycle      D onResume called
2023-03-18 HostConnection          D HostConnection::get() New Host Connection
established 0xef85ee00, tid 25832
2023-03-18 HostConnection          D HostComposition ext
ANDROID_EMU_CHECKSUM_HELPER_v1 ANDROID_EMU_native_sync_v2
ANDROID_EMU_dma_v1 ANDROID_EMU_direct_mem ANDROID_EMU_vulkan
ANDROID_EMU_deferred_vulkan_commands ANDROID_EMU_vulkan_null_optional_strings
ANDROID_EMU_vulkan_create_resources_with_requirements ANDROID_EMU_YUV_Cache
ANDROID_EMU_vulkan_ignored_handles
ANDROID_EMU_has_shared_slots_host_memory_allocator
ANDROID_EMU_vulkan_free_memory_sync ANDROID_EMU_vulkan_shader_float16_int8
ANDROID_EMU_vulkan_async_queue_submit ANDROID_EMU_sync_buffer_data
ANDROID_EMU_vulkan_async_qsri ANDROID_EMU_read_color_buffer_dma
GL_OES_EGL_image_external_essl3 GL_OES_vertex_array_object
GL_KHR_texture_compression_astc_ldr ANDROID_EMU_host_side_tracing
ANDROID_EMU_gles_max_version_3_0
2023-03-18 EGL_emulation           D eglCreateContext: 0xef85fc00: maj 3 min 0 rcv 3
2023-03-18 EGL_emulation           D eglMakeCurrent: 0xef85fc00: ver 3 0 (tinfo
0xefb5db50) (first time)
2023-03-18 Gralloc4                I mapper 4.x is not supported
2023-03-18 HostConnection          D createUnique: call

```

2023-03-18 HostConnection established 0xef85f570, tid 25832	D HostConnection::get() New Host Connection
2023-03-18 goldfish-address-space	D allocate: Ask for block of size 0x100
2023-03-18 goldfish-address-space 0x3f3ffe000 size 0x2000	D allocate: ioctl allocate returned offset
2023-03-18 HostConnection	D HostComposition ext
ANDROID_EMU_CHECKSUM_HELPER_v1 ANDROID_EMU_native_sync_v2 ANDROID_EMU_dma_v1 ANDROID_EMU_direct_mem ANDROID_EMU_vulkan ANDROID_EMU_deferred_vulkan_commands ANDROID_EMU_vulkan_null_optional_strings ANDROID_EMU_vulkan_create_resources_with_requirements ANDROID_EMU_YUV_Cache ANDROID_EMU_vulkan_ignored_handles ANDROID_EMU_has_shared_slots_host_memory_allocator ANDROID_EMU_vulkan_free_memory_sync ANDROID_EMU_vulkan_shader_float16_int8 ANDROID_EMU_vulkan_async_queue_submit ANDROID_EMU_sync_buffer_data ANDROID_EMU_vulkan_async_qsri ANDROID_EMU_read_color_buffer_dma GL_OES_EGL_image_external_essl3 GL_OES_vertex_array_object GL_KHR_texture_compression_astc_ldr ANDROID_EMU_host_side_tracing ANDROID_EMU_gles_max_version_3_0	
2023-03-18 Activity life cycle	D onPause called
2023-03-18 Activity life cycle	D onStop called
2023-03-18 Activity life cycle	D onDestroy called