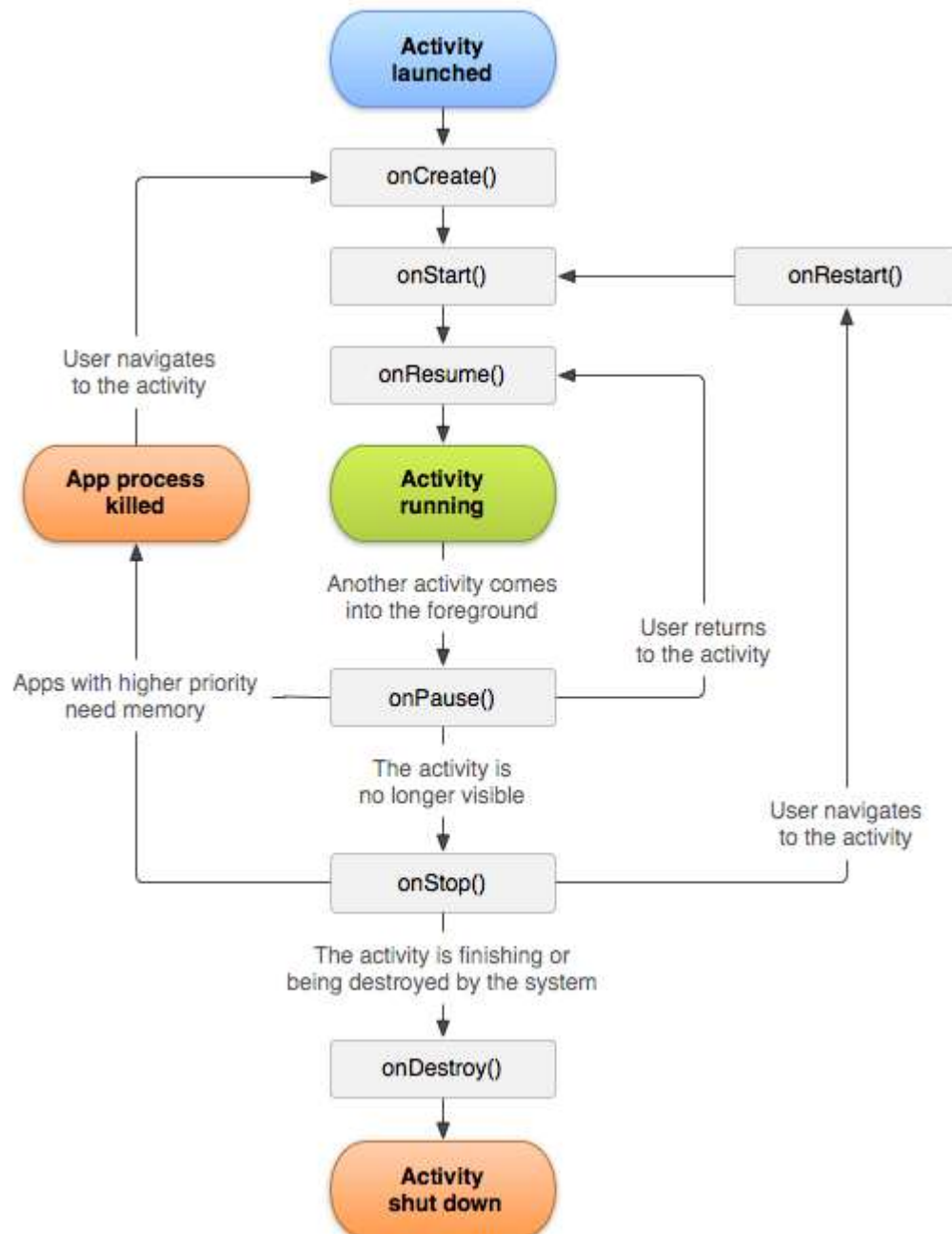# Practical Related Questions

1. **Draw the activity life cycle diagram.**

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2. **Give the hierarchy of directory structure where you store activity file.**

res/layout/activity_foo.xml - This file describes the layout of the activity's UI. This means the placement of every view object on one app screen.

src/.../FooActivity.java - The Activity "controller" that constructs the activity using the view, and handles all event handling and view logic for one app screen.

3. **Write difference between onStop() and onDestroy() methods, also between onPause() and onResume()methods.**

   onDestroy() is called whenever:

   - The user takes out the activity from the "recent apps" screen.
   - The user takes out the activity from the "recent apps" screen.

   onStop() is called whenever:

   - The user leaves the current activity.

   So in your example, when the user launches Activity B, Activity A called onStop().

Exercise

1.

a) MainActivity.java

```java
package com.example.activitylife;

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("lifecycle","onCreate invoked");
    }
    @Override
    protected void onStart() {
        super.onStart();
```

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```java
        Log.d("lifecycle","onStart invoked");
    }

    @Override
    protected void onResume(){
        super.onResume();
        Log.d("lifecycle", "OnResume Invoked");
    }

    @Override
    protected void onPause(){
        super.onPause();
        Log.d("lifecycle", "OnPause Executed");
    }

    @Override
    protected void onStop(){
        super.onStop();
        Log.d("lifecycle", "OnStop Lifecycle Executed");
    }

    @Override
    protected void onRestart(){
        super.onRestart();
        Log.d("lifecycle", "OnRestart Executed");
    }

    @Override
    protected void onDestroy(){
        super.onDestroy();
        Log.d("lifecycle", "OnDestroy Executed");
    }
}
```

b) 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: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_constraintLeft_toLeftOf="parent"
        app:layout_constraintRight_toRightOf="parent"
        app:layout_constraintTop_toTopOf="parent" />

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