



1. Installing Android Studio:

- I visit the official Android Studio download page.
- I select my operating system and download the latest stable version.
- Once the download finishes, I open the installation file.
- I run the .exe file and follow the on-screen instructions.
- After installation I launched Android Studio for the first time.
- During the initial setup, Android Studio guides me through downloading the necessary SDK components.
- I choose a standard installation and ensure I download all the required SDK tools.
- In Android Studio, I go to the AVD Manager from the "Tools" menu.
- I create a new virtual device by choosing a hardware profile (like Pixel 4) and selecting a system image (e.g., API 30).
- I finish the setup and start the AVD to ensure it works properly.

2. Creating an Android App for "Hello Universe":

- I open Android Studio.
- I click on "Start a new Android Studio project."
- I select "Empty Activity" and click "Next."
- I name my application (e.g., "Hello Universe").
- I set the package name (e.g., com.example.hellouniverse).
- I choose a location to save my project.
- I select the language (Java).
- I set the minimum SDK to API 21: Android 5.0 (Lollipop).
- I click "Finish."
- I navigate to activity_main.xml
- Then I added the code as follows:

```
<?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"
    tools:context=".MainActivity">

    <TextView
        android:layout_width="223dp"
        android:layout_height="33dp"
        android:text="Hello Universe!"
```

```
android:textAlignment="center"  
android:textSize="25dp"  
app:layout_constraintBottom_toBottomOf="parent"  
app:layout_constraintEnd_toEndOf="parent"  
app:layout_constraintStart_toStartOf="parent"  
app:layout_constraintTop_toTopOf="parent" />
```

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

3. Running The Application:

- I make sure there are no errors in my code by checking the build output at the bottom of Android Studio.
- **I select the target device:**
- **For a physical device:** I connect my Android device via USB. I enable Developer Mode and USB Debugging on the device.
- **For an AVD:** I ensure the virtual device is running in the AVD Manager.
- I click the "Run" button (green triangle) in Android Studio.
- **Output:**

