

Chapter 1 - Creating our first App

In this chapter we will create our first Android app. I don't expect you to know anything but will walk you through the steps to build your first Android App!

What is an APK?

An APK is a collection of different files (like code, audio, video, etc.) compiled and bundled into a single file.

What is an AVD?

AVD stands for Android Virtual Device. AVD is an emulator configuration that simulates a physical Android device.

Android UI Layouts

View are the base class for widgets

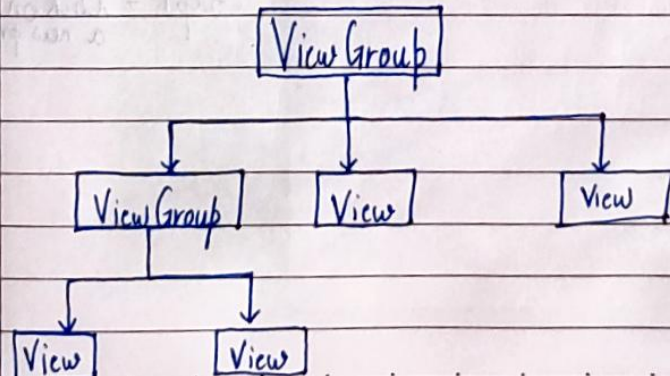
↳ like buttons, text fields etc.

View = Basic building blocks

ViewGroup holds View and ViewGroup.

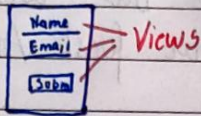
(Container)

↳ Just like a box can hold objects and more boxes



XML vs Java in Android

XML is the skeleton code which describes the UI layout
Java Drives this XML



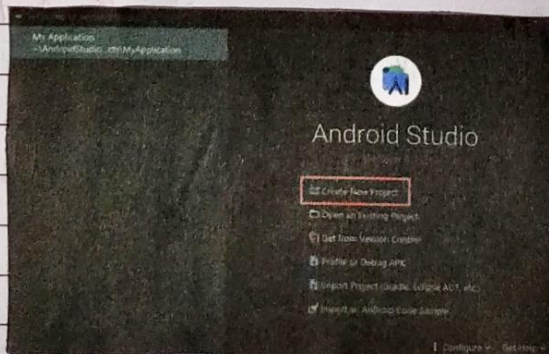
.XML

When Submit is clicked &
Change the screen & Store the data
& .Java

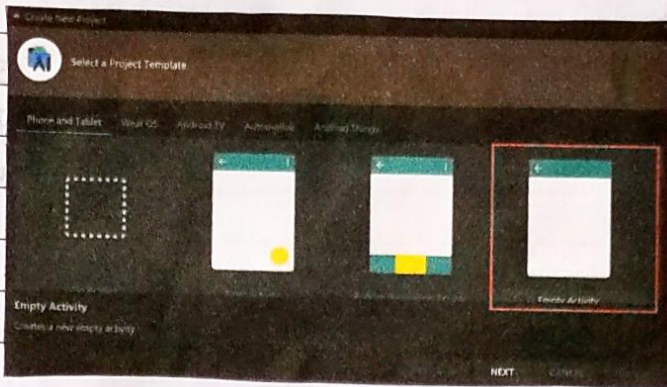
Important Notes

- Android Studio is a resource hungry program. You need to have patience while using it!
- Sometimes Android Studio might download files from the internet, so keep your Wifi/ Hotspot ready
- In very rare cases, your firewall might block Android Studio. In that case, you will need to
- If your computer is slow, use USB debugging to use your phone as an AVD replacement
- If you are using an old PC, make sure that the virtualisation is turned on

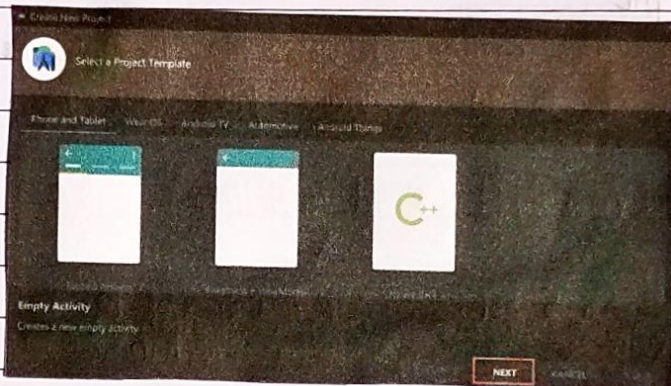
Creating our Unit Converter App.



Step 1 → Click on create a new project



Step 2 → Click on Empty activity

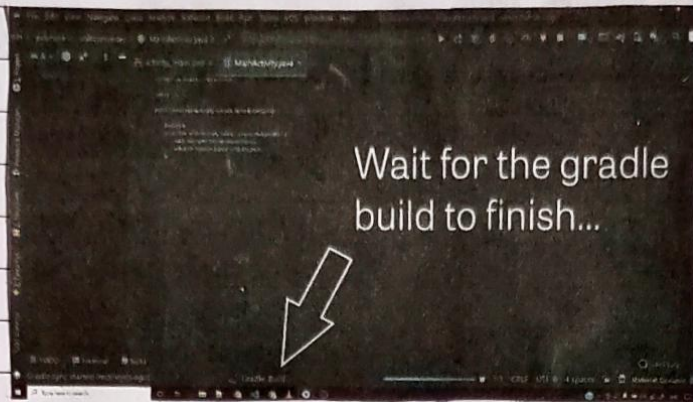


Step 3 → Click Next



Step 4 → Type the name of the app & click finish

→ you can change App location from here



Step 5 → Wait for the gradle build to finish.

The R.java file

Android R.java file contains resource IDs for all the resources. We can use it to access views from our java file.

```
button = findViewById(R.id.mybutton);
```

function to get views

button in xml has an id of "mybutton"

Adding Event Listeners

We can add click listeners by using setOnClickListener method as follows:

```
button.setOnClickListener(new View.OnClickListener() {
```

```
@Override
```

```
public void onClick(View v) {
```

```
// Action Here
```

```
}
```

```
});
```

This is performed when the button is clicked!

android: onClick attribute

The onClick attribute can be set for the button element in XML layout.

android: onClick = "sendMessage" → In XML

```
public void sendMessage (View view) { → In Java
    // code here
}
```