

## Development Environment Manual

1. Download and install Android Studio. Link: <https://developer.android.com/studio/index.html>

2. Download project files.

Java Files: <https://github.com/primorskey/CS-191-Project/tree/master/06-Installation%20and%20Configuration%20Manuals/BillDing/app/src/main/java/com/example/prim/billing>

Android Manifest: <https://github.com/primorskey/CS-191-Project/blob/master/06-Installation%20and%20Configuration%20Manuals/BillDing/app/src/main/AndroidManifest.xml>

Drawable Files: <https://github.com/primorskey/CS-191-Project/tree/master/06-Installation%20and%20Configuration%20Manuals/BillDing/app/src/main/res/drawable>

Layout Files: <https://github.com/primorskey/CS-191-Project/tree/master/06-Installation%20and%20Configuration%20Manuals/BillDing/app/src/main/res/layout>

Menu Files: <https://github.com/primorskey/CS-191-Project/tree/master/06-Installation%20and%20Configuration%20Manuals/BillDing/app/src/main/res/menu>

3. Run Android Studio and create a new project named BillDing. Go to 'File' → 'New' → 'New Project'. Write BillDing as the application name then click 'Next'. Choose 'Phone and Tablet' and set the minimum SDK as API 19: Android 4.4 (KitKat) then press 'Next'. Choose 'Basic Activity' then press 'Next'. Write MainActivity as the Activity Name then press 'Finish'.

4. Navigate to where the newly created project files are stored. Sample path:

C:\Users\Username\AndroidStudioProjects\BillDing

5. Copy and paste the downloaded project files into their respective folders. Go to C:\Users\Username\AndroidStudioProjects\BillDing\app\src\main and do the following:

- Copy and paste the AndroidManifest file to

C:\Users\Username\AndroidStudioProjects\BillDing\app\src\main

- Copy and paste the Java Files to

C:\Users\Username\AndroidStudioProjects\BillDing\app\src\main\java\com\example\username\billding

- Copy and paste Drawable Files to

C:\Users\Username\AndroidStudioProjects\BillDing\app\src\main\res\drawable

- Copy and paste Layout Files to

C:\Users\Username\AndroidStudioProjects\BillDing\app\src\main\res\layout

6. Setting up of development environment is now complete.

**To build an APK:** In Android Studio, go to Build → Build APK. Once built, a notification will show up in the bottom right. Click on it to navigate to the APK's file location.

**To run the application on your phone:** In Android Studio, go to Run → Run 'app' or press Shift + F10. A new window will pop up. Find your phone in the connected devices tab and click double on click. Alternatively, you can choose your phone in the connected devices tab and click the ok button below.

**Please note that you must have your Android phone connected to the PC and that the minimum API level that is supported by the application is API 19 (KitKat 4.4).**

**To run the application on an emulator:** In Android Studio, go to Run → Run 'app' or press Shift + F10. A new window will pop up. If there are no virtual devices available, click 'Create New Virtual Device'. Choose whether you would like to emulate a phone or tablet and click 'Next'. Choose an API level that is at least 19 then click 'Next'. Name your new Android Virtual Device and click 'Finish'. Now choose a virtual device to run the application either by double clicking it or choosing it and pressing 'Ok'.

**Please note that the minimum API level that is supported by the application is API 19 (KitKat 4.4).**