Becoming a Pro

IN Mobile Applications Testing

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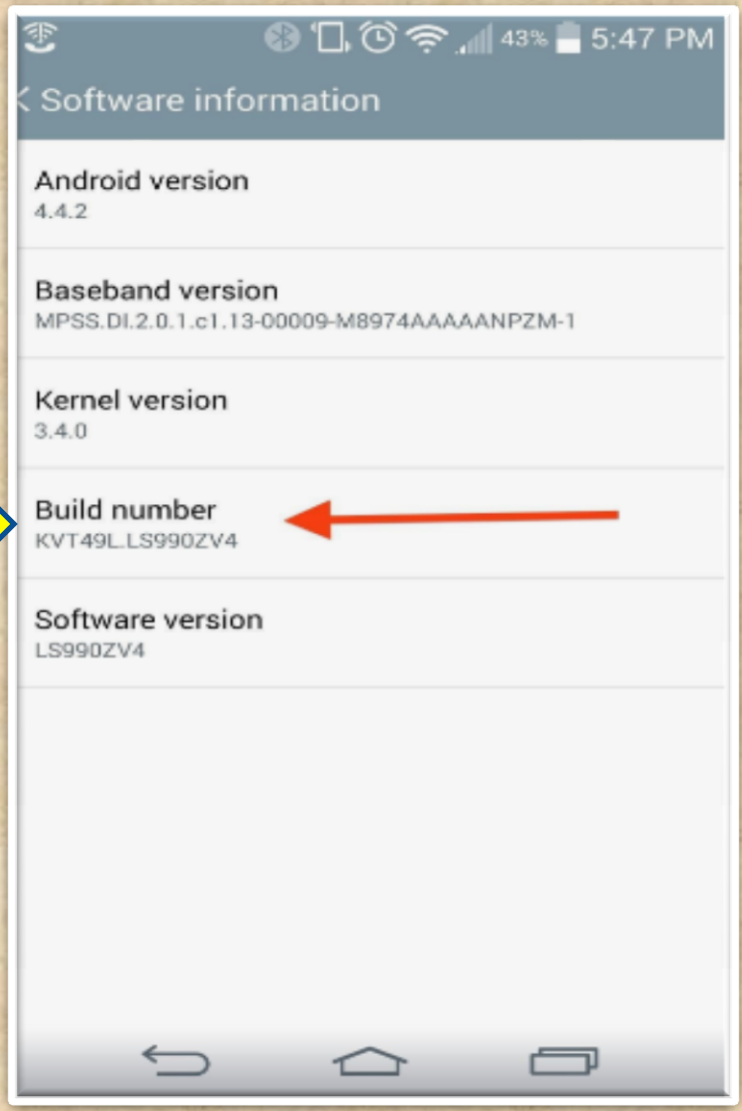
Mobile APPS: Distribution/Installation/Logs

How to enable Developers Options ?

1. Enable **USB debugging** in the device system settings, under **Developer options**.

2. To make it visible, go to **Settings > About phone** and tap **Build number seven times.**

3. Return to the previous screen to find **Developer options** at the bottom.



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Mobile APPS: Distribution/Installation/Logs

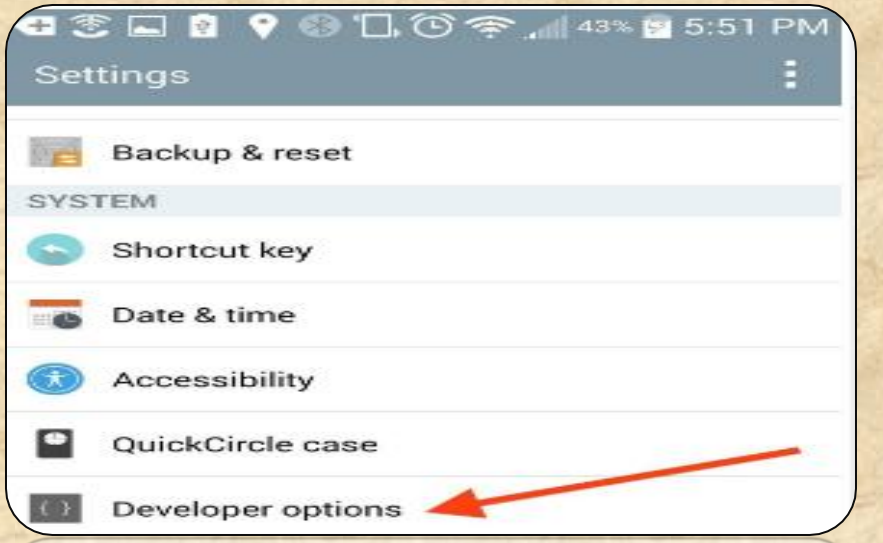
(contin.)How to enable Developers Options ?

Open Developers Options

Check the box **USB debugging**.

This setting will allow you to connect your device to your computer, then issue **fastboot** commands via **ADB**.

This is useful for rooting, unlocking bootloaders, installing recoveries, and a ton more.



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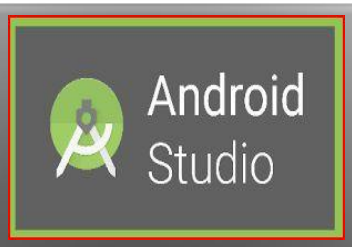

What is
Android Studio?

Android Studio is the official integrated development environment (IDE) for **Android** platform development.

The official language for Android development is **Java**. Large parts of Android are written in **Java** and its APIs are designed to be called primarily from **Java**.

It is possible to develop C and C++ apps using the Android Native Development Kit (NDK), however it isn't something that Google promotes.

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Mobile APPS: Distribution/Installation/Logs

What is ADB in Android Studio

Android Debug Bridge (adb) is a versatile command line tool that lets you communicate with an emulator instance or connected Android-powered device.

It is a client-server program that includes three components:

- **A client**, which sends commands. The client runs on your development machine. You can invoke a client from a shell by issuing an adb command. Other Android tools such as DDMS also create adb clients.
- **A daemon**, which runs commands on a device. The daemon runs as a background process on each emulator or device instance.
- **A server**, which manages communication between the client and the daemon. The server runs as a background process on your development machine.

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Mobile APPS: Distribution/Installation/Logs

What is ADB LOCATS?

Logcat is a command-line tool that dumps a log of system messages, including stack traces when the device throws an error and messages that you have written from your app with the Log class

ANDROID MONITOR includes a logcat Monitor that displays debug messages.

The logcat Monitor displays system messages, such as when a garbage collection occurs, as well as messages that you can add to your app using the LOG class.

It displays messages in real time and also keeps a history so you can view older messages.

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What is ADB LOCATS?

To set a LOG LEVEL : in the log level MENU Select the Following Options

- Verbose - Show all log messages (the default).
- Debug - Show debug log messages that are useful during development only, as well as the message levels lower in this list.
- Info - Show expected log messages for regular usage, as well as the message levels lower in this list.
- Warn - Show possible issues that are not yet errors, as well as the message levels lower in this list.
- Error - Show issues that have caused errors, as well as the message level lower in this list.
- Assert - Show issues that the developer expects should never happen.

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What is ADB LOCATS?

HOMEWORK : http://adbshell.com/commands/adb-logcat

Some most useful commands

- adb logcat *:V *lowest priority, filter to only show Verbose level*
- adb logcat *:D *filter to only show Debug level*
- adb logcat *:I *filter to only show Info level*
- adb logcat *:W *filter to only show Warning level*
- adb logcat *:E *filter to only show Error level*
- adb logcat *:F *filter to only show Fatal level*
- adb logcat *:T *filter to show steps leading up to errors and warnings*

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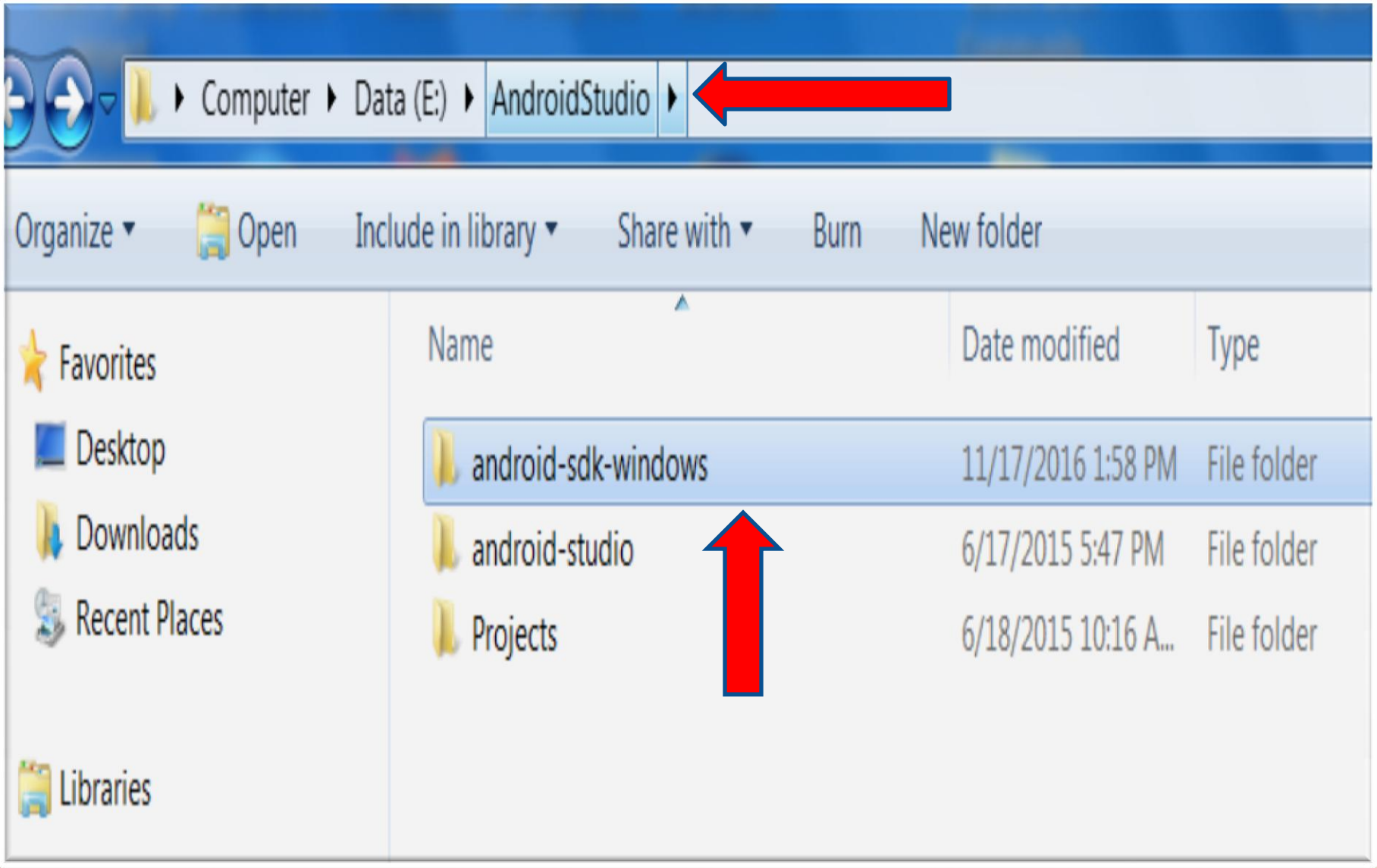

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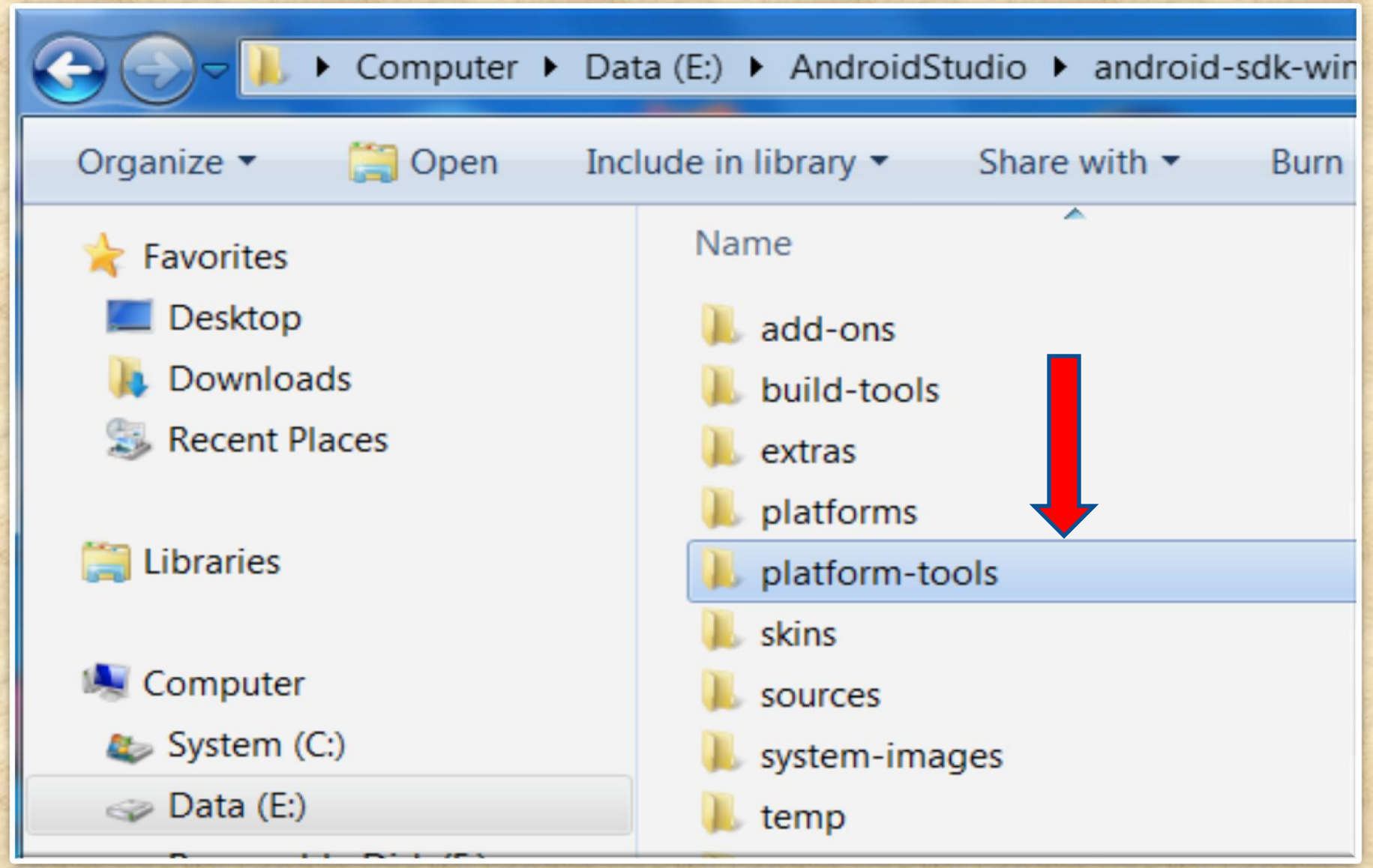

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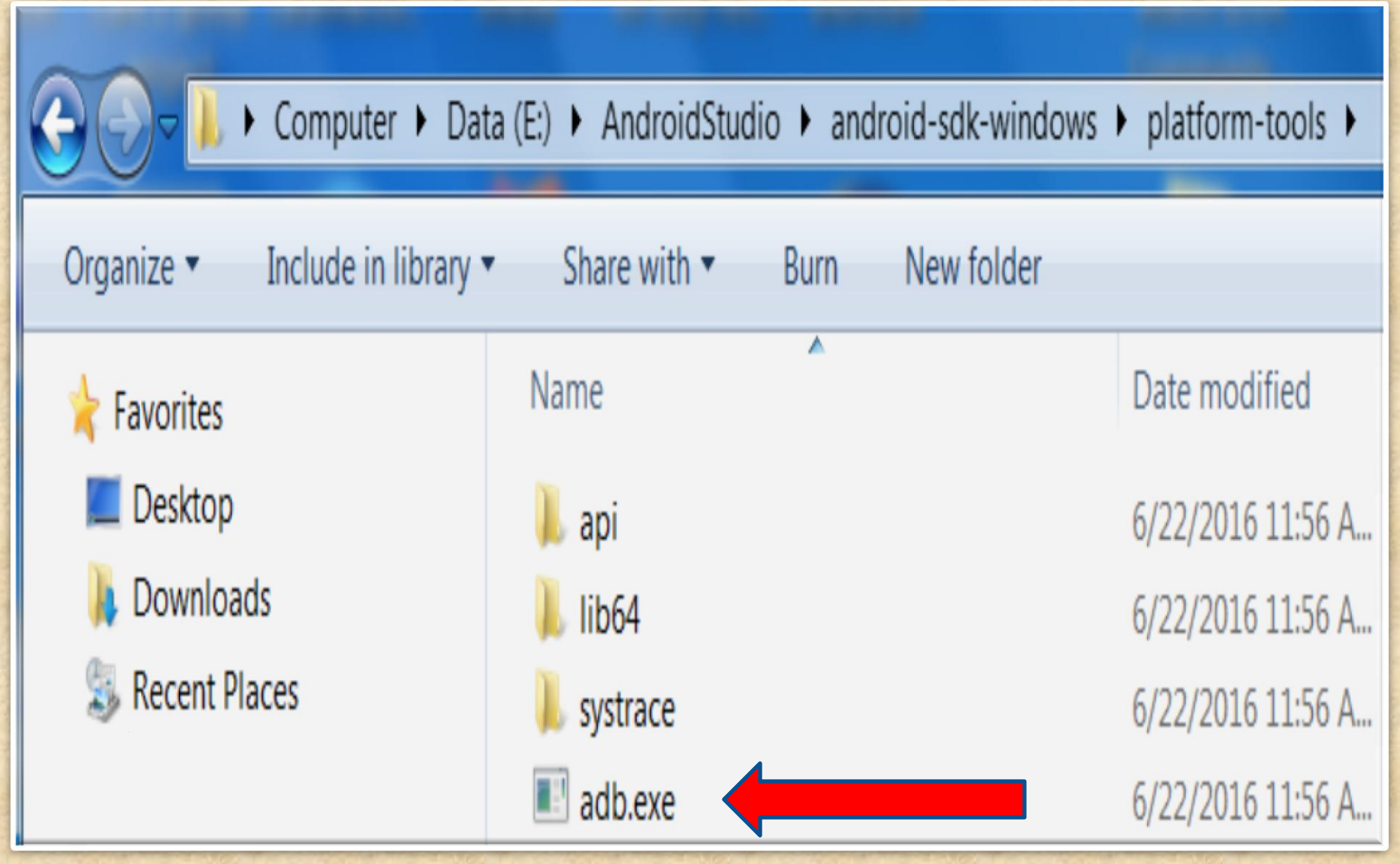

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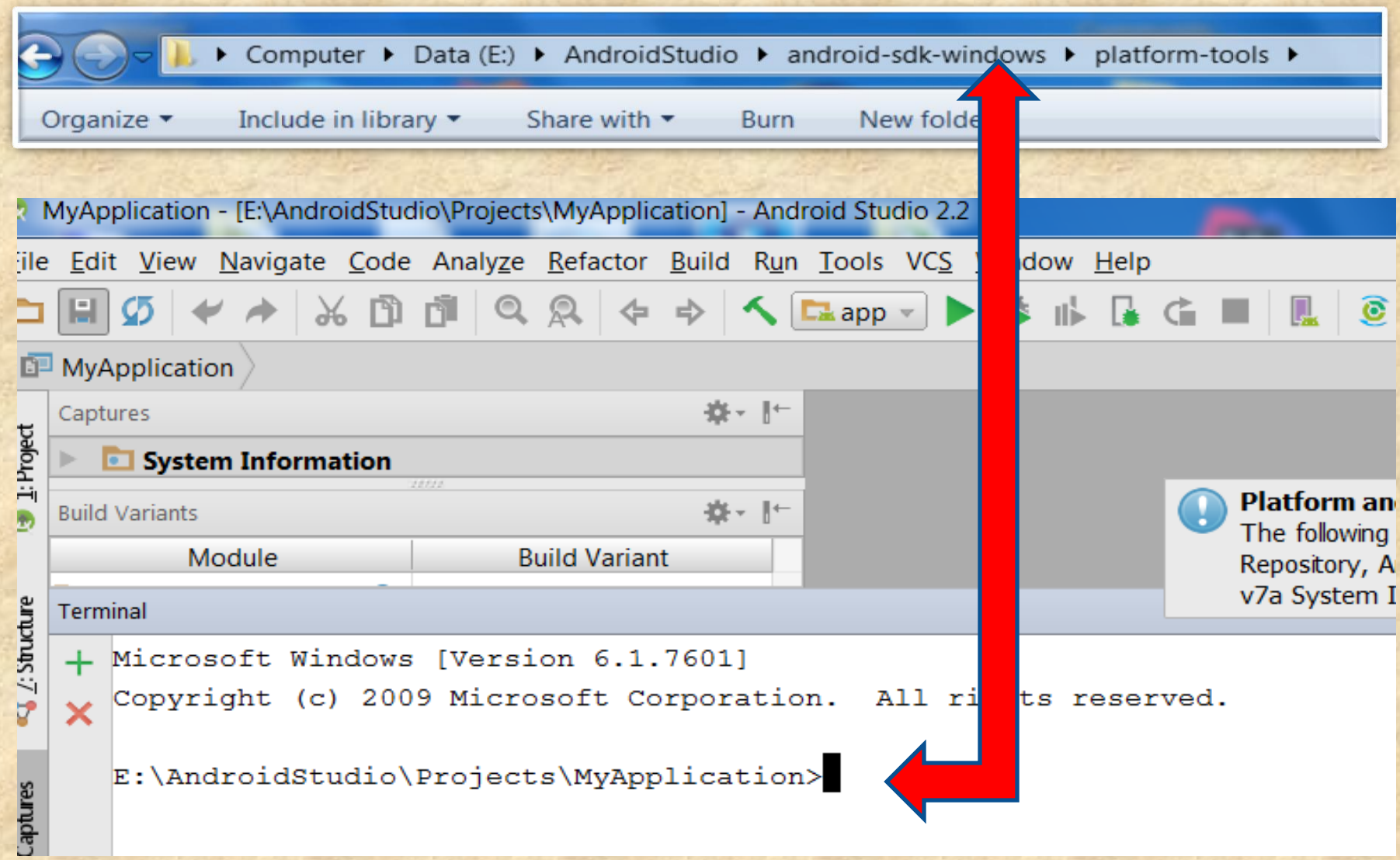

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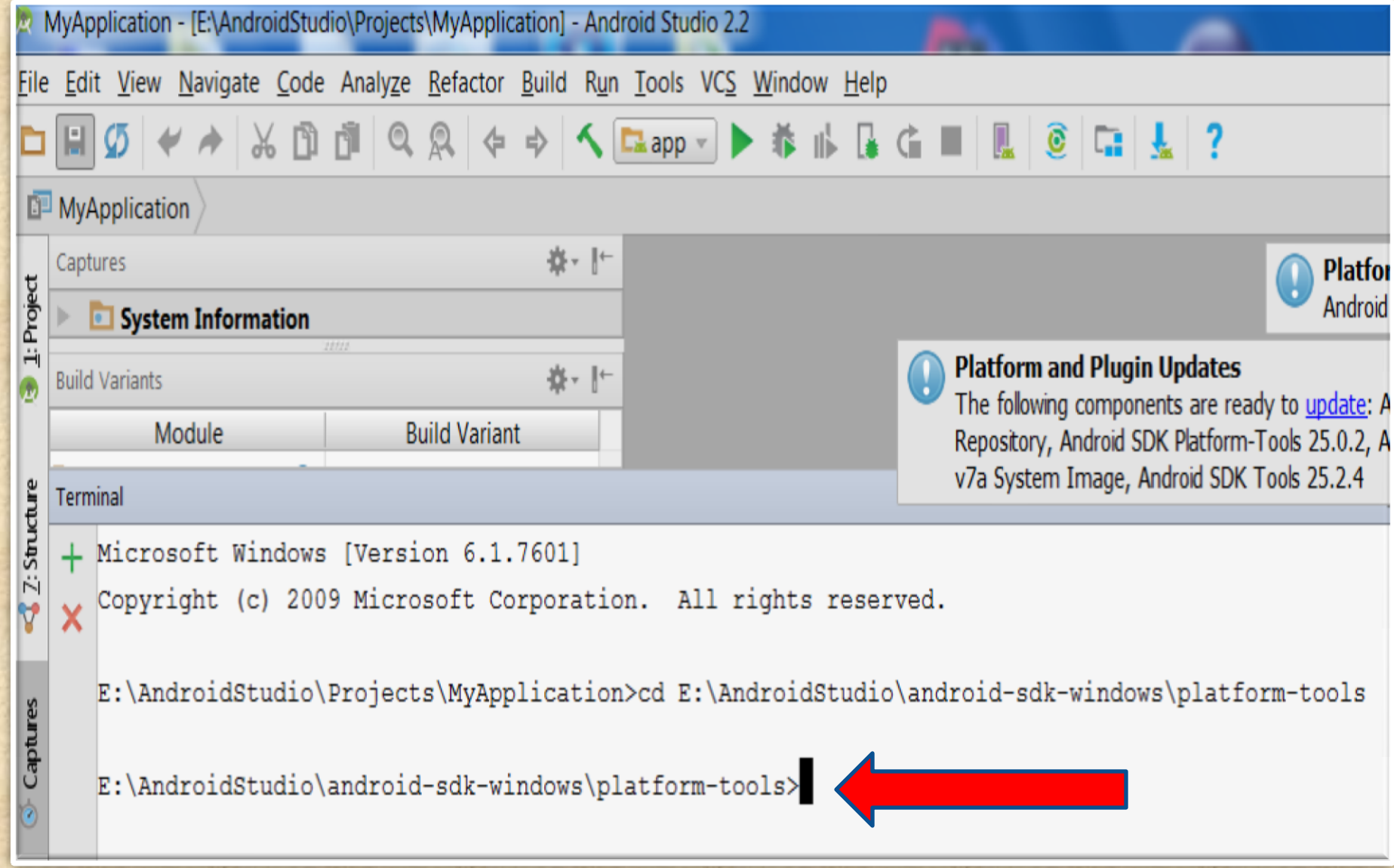

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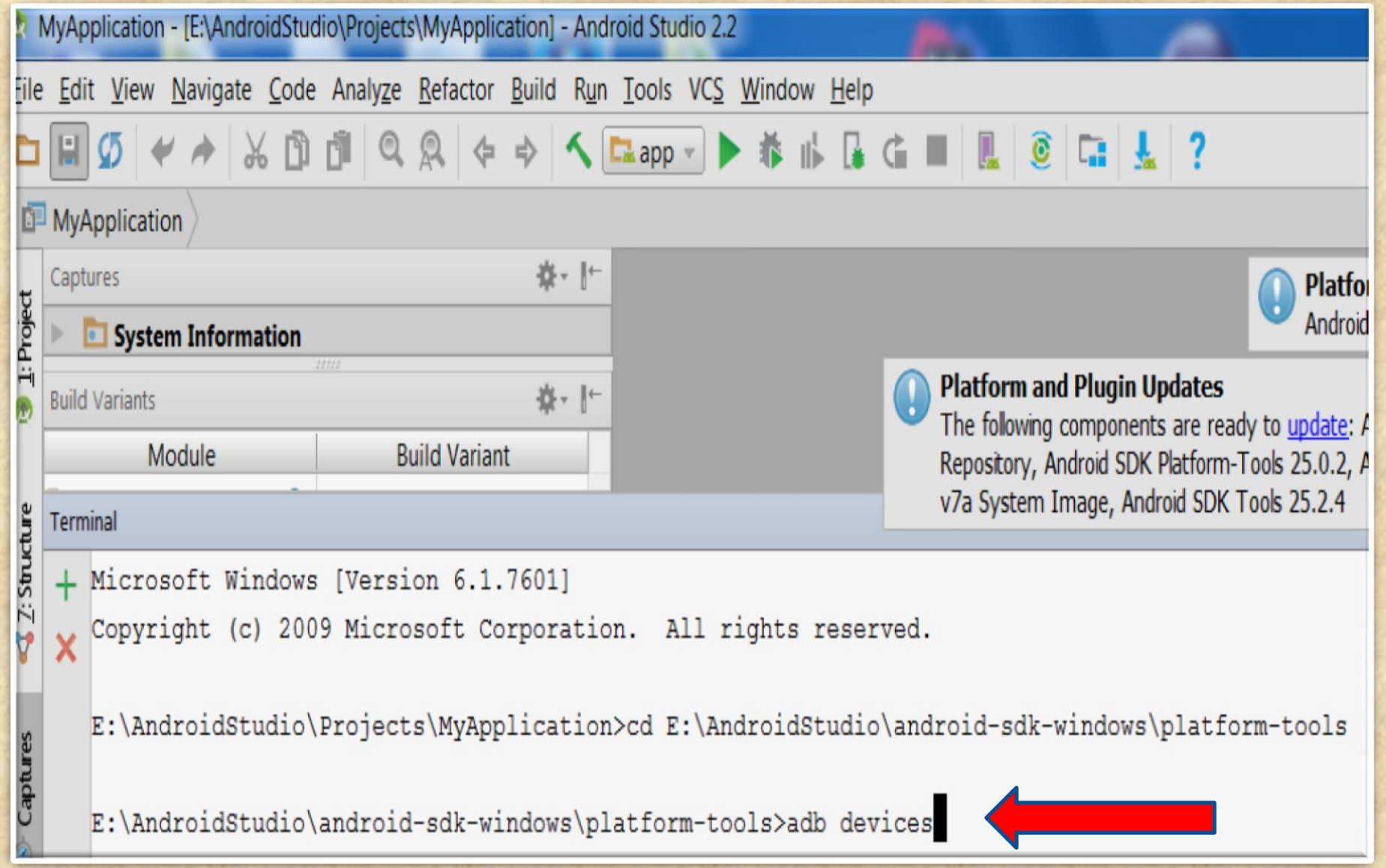

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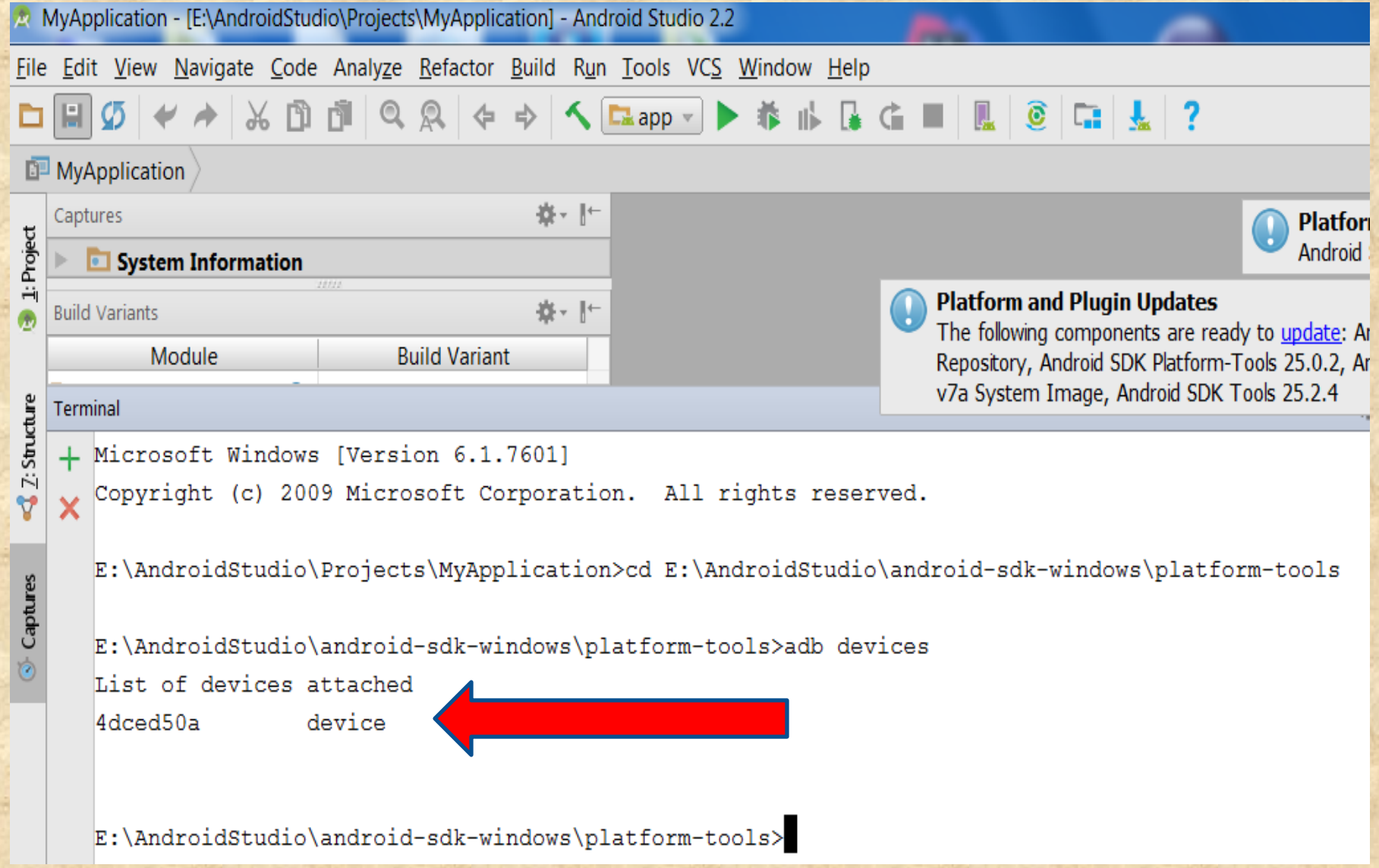

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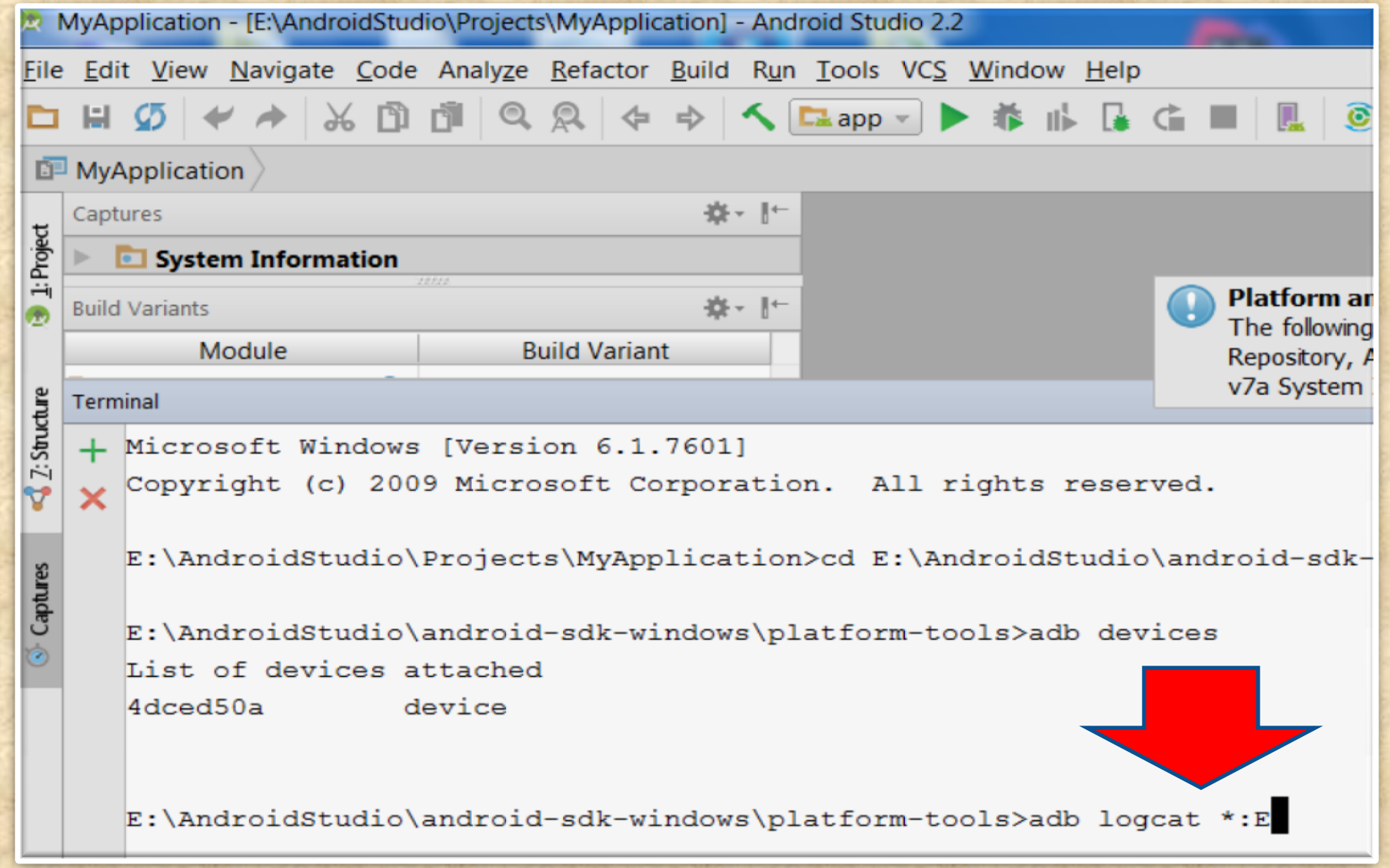

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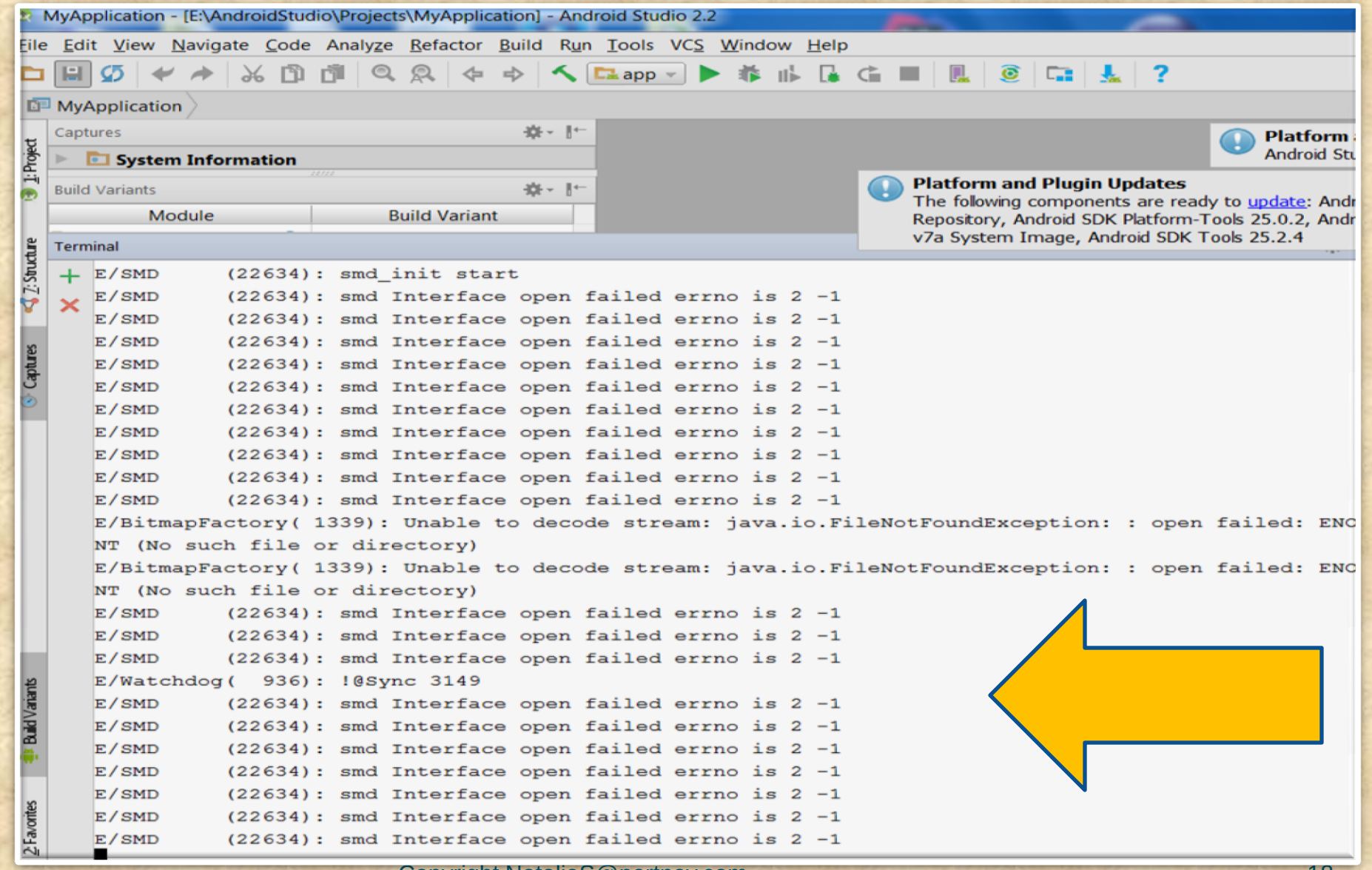

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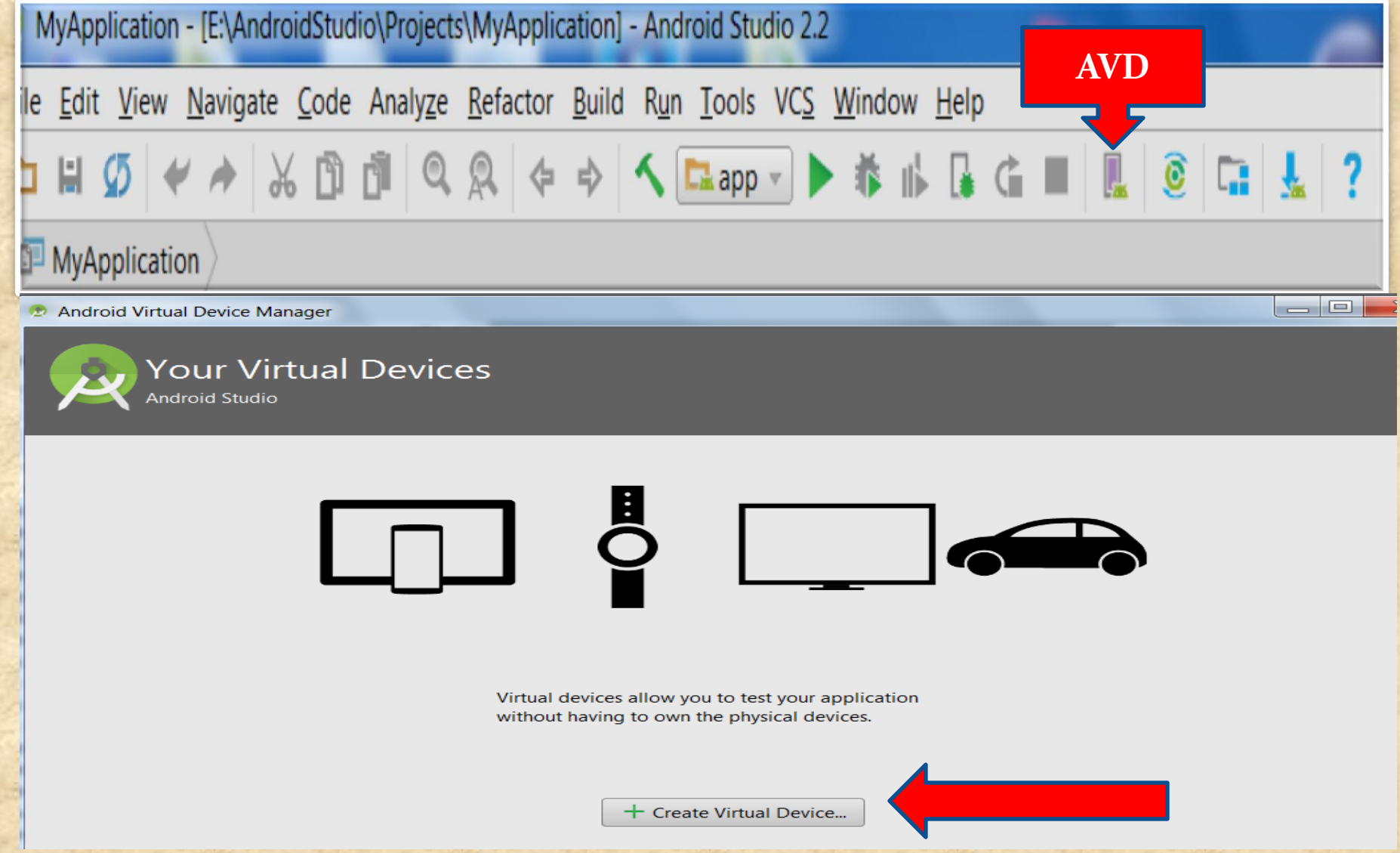

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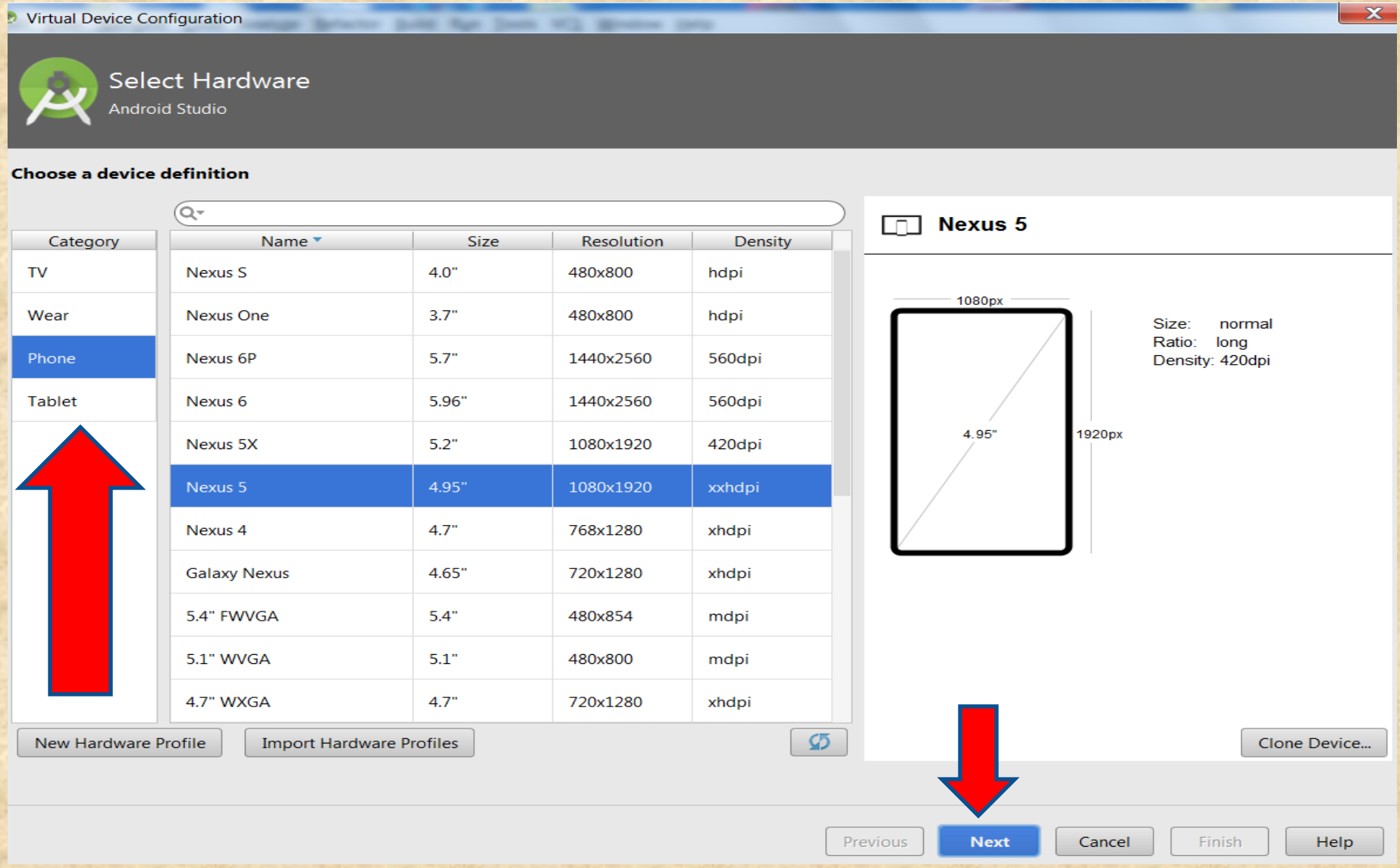

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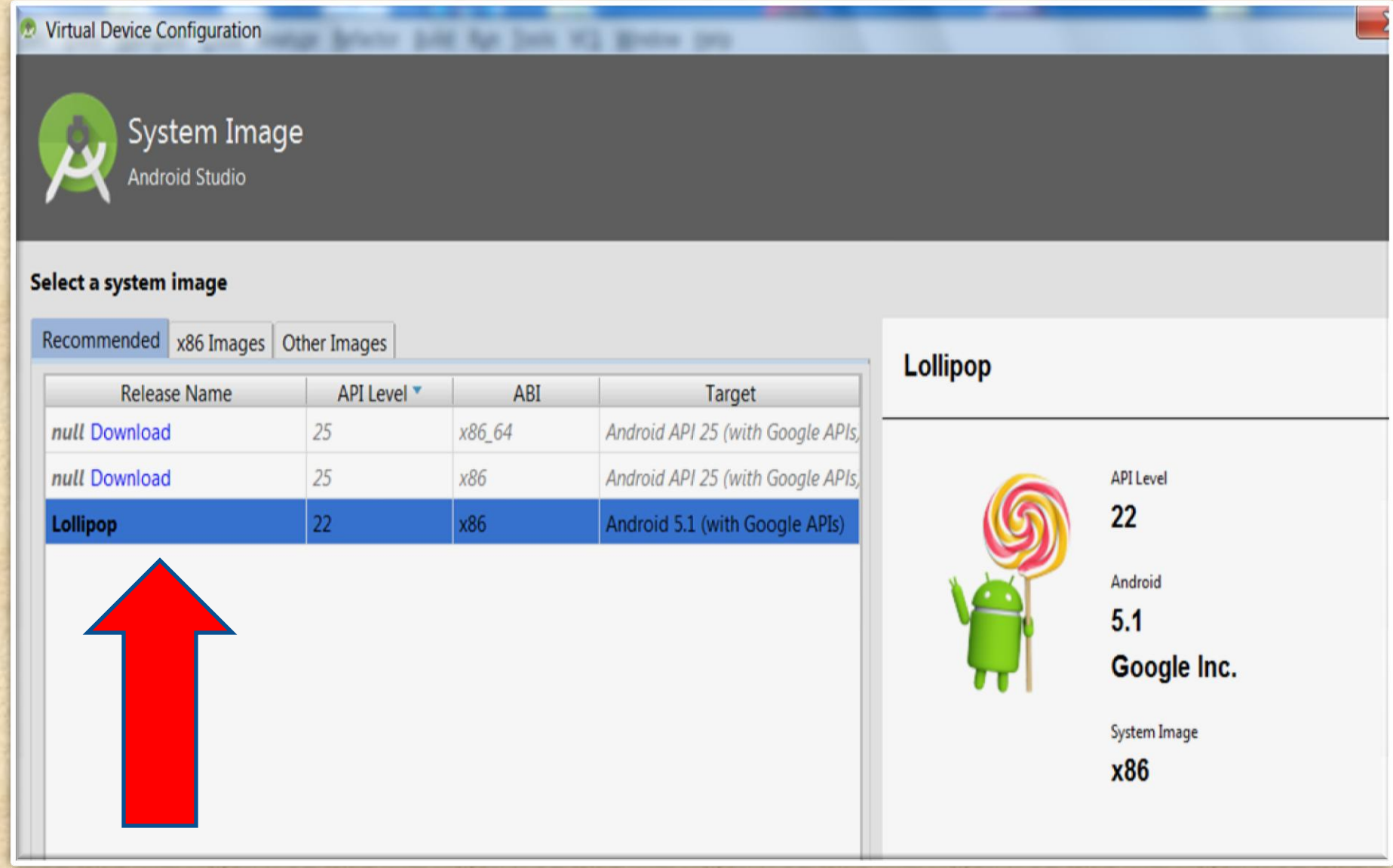

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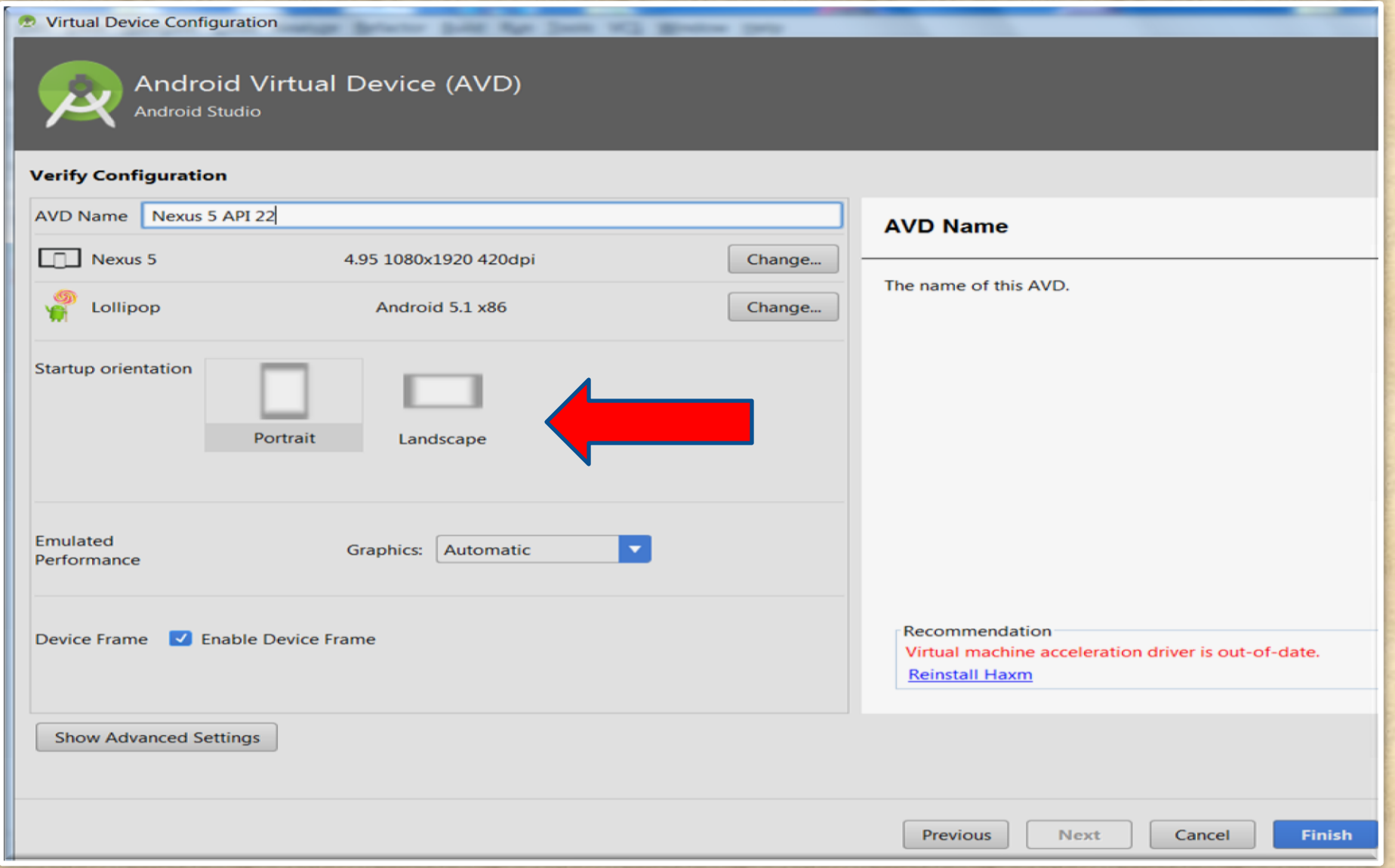

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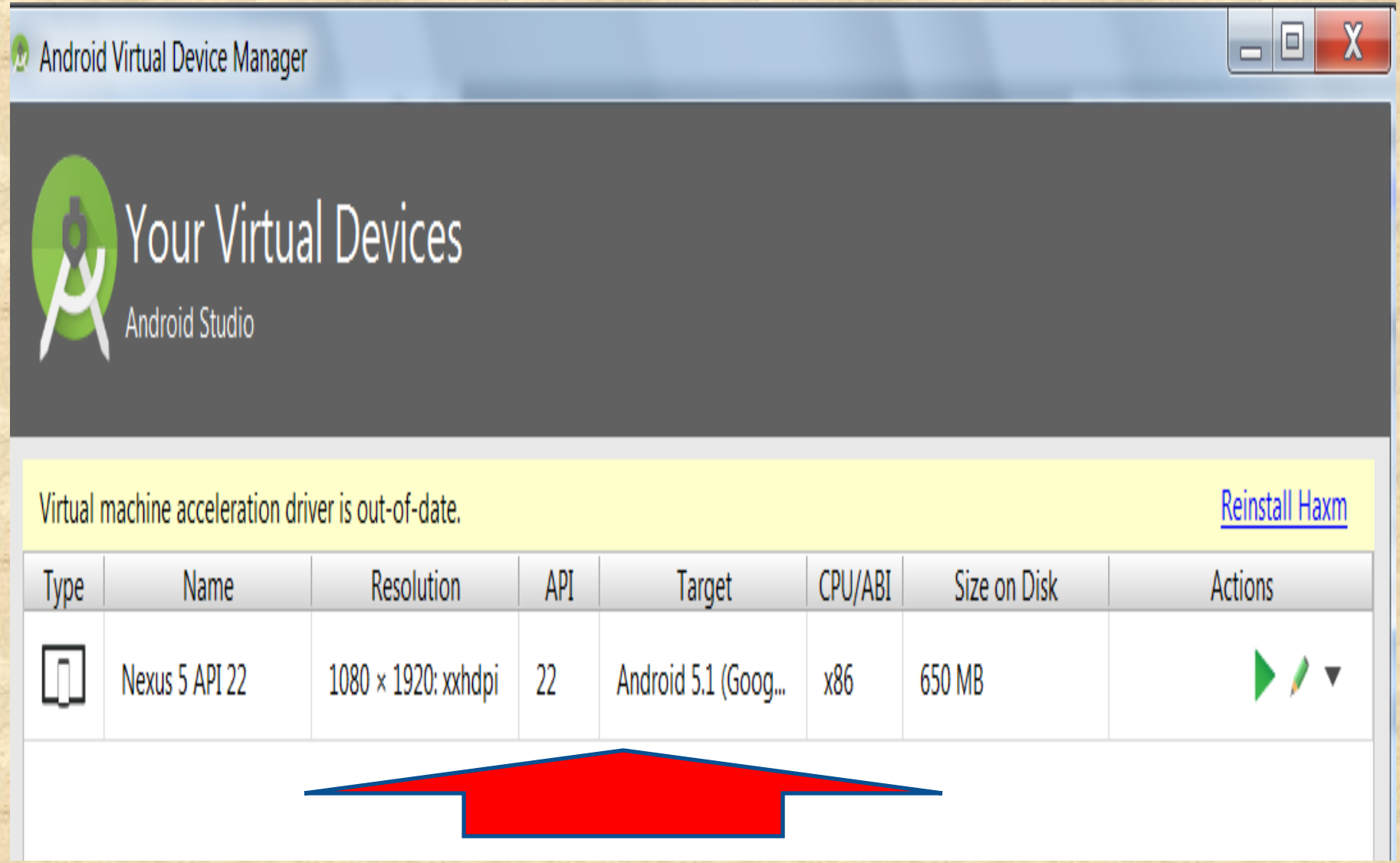

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Mobile APPS: Distribution/Installation: Android .APK

Through an App Marketplace (Google Play)

by Email (Android system recognizes the APK and displays an Install Now button in the email message)

Through a Website (host the release-ready APK file on your website and provide a download link)

Google Drive

Android Studio

Test Fairy TOOL

enable allow "Unknown Sources" on the device (Settings > Applications > Unknown Sources

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Mobile APPS: Distribution/Installation: Android .APK

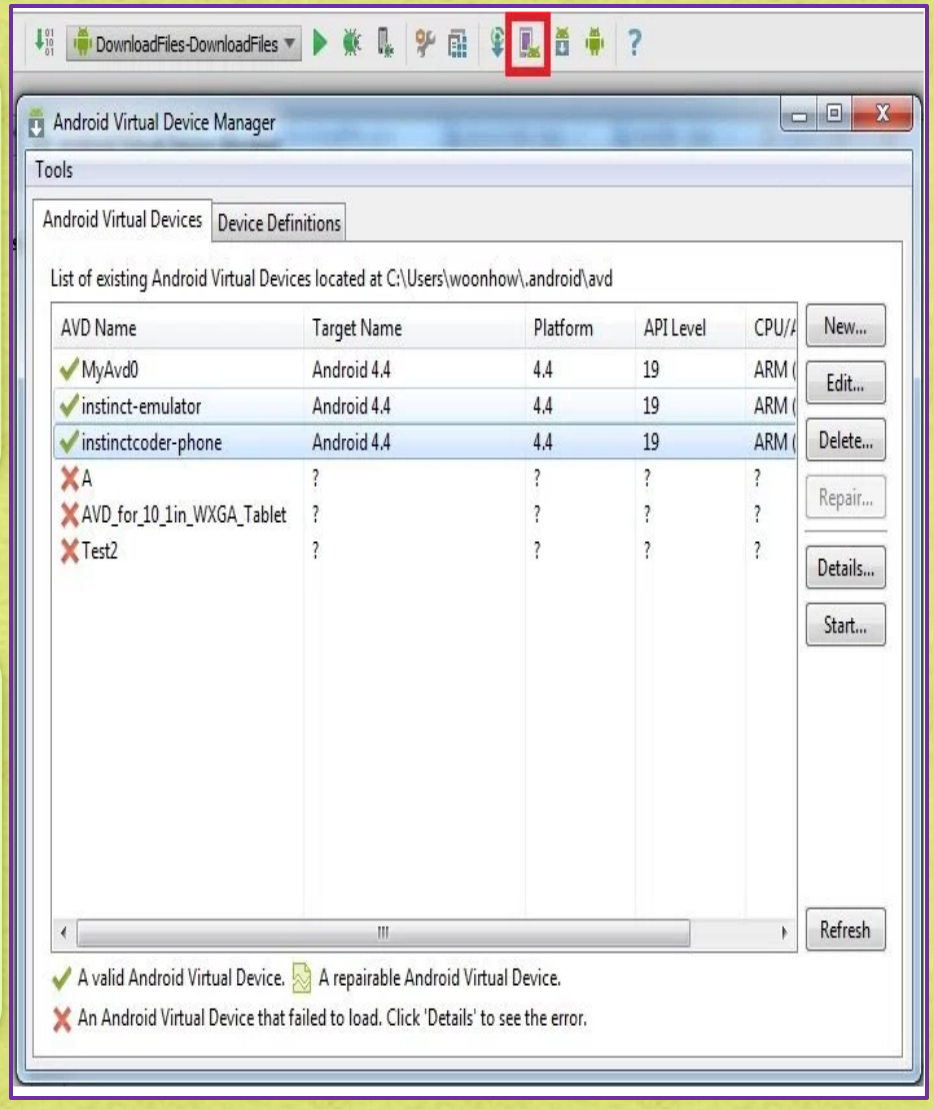
Manually Install APK in Android Studio Emulator

1. Verify the presence of **X:\Program Files (x86)\Android\android-studio\sdk\platform-tools**

2. Copy APK file into **X:\Program Files (x86)\Android\android-studio\sdk\platform-tools**

3. go to **Android Studio > Run Android Virtual Device Manager (AVD) > Start emulator**

In this session we will use APK file get from "Candy Crush"



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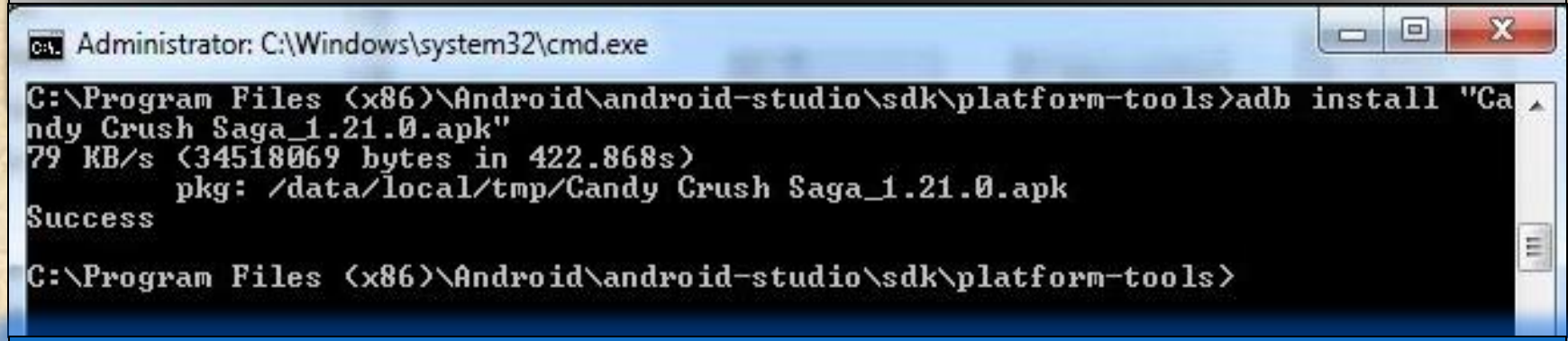
Mobile APPS: Distribution/Installation: Android .APK

Cont. : Manually Install APK in Android Studio Emulator

4. Go to **Start > Run > Cmd**

```
1 Type cd "C:\Program Files (x86)\Android\android-studio\sdk\platform-tools"
2 Type adb install "Candy Crush Saga_1.21.0.apk"
```

5. After successfully installed, you will see result in command prompt like below



It will take about 5-6 minutes to install successfully

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Mobile APPS: Distribution/Installation: Android .APK

Manually Install APK in Android Studio Emulator

6.Go to the emulator and you will see Candy Crush install in the emulator like below

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