

Chapter 2

DVM (Dalvik virtual machine)

JVM (Java virtual machine)

1) It is register based which is designed to run on low memory

It is stack based

2) DVM uses its own byte code & runs ".dex" file

JVM uses Java byte code & runs ".class" file

3) DVM has been designed so that device can run multiple instance of VM efficiently. Applⁿ are given their own instance

single instance of JVM is shared with multiple applⁿ

4) DVM support Android o.s only

multiple o.s

5) For DVM very few Retools are available

many

6) There is constant pool for every applⁿ

every class.

7) Here the executable is APK

JAR

Android SDK (software development kit)

set of development tools used to develop appⁿ for Android platform

The Android SDK includes the follⁿ

- Required libraries
- Debugger
- An Emulator
- Relevant documentation for ~~Android~~ API
- Sample source code

Android development Tools (ADT)

- Android studio
- eclipse
- Netbeans

Android Virtual Machine (AVD) device

It is device configuration that is run with the Android emulator

It works the emulator to provide a virtual device-specific environment in which to install & run Android apps

Using AVD Manager to create an AVD

Android SDK provide AVD manager tool for creating & otherwise managing AVD's

You can run this tools directly on run SDK manager & select Manage AVD's from the tool menu.

Android virtual device manager lets you create, update, delete repair & start AVD's.

Steps to install android studio

- 1) First go to developer.android.com to get android studio executable or zip file
- 2) click to download android studio button
- 3) After downloading has finished, open the file from downloading & run it. it will prompt the dialog box
click next, In the next prompt it will ask for path for installation
choose path & next
- 4) It will start installation
click next
- 5) Once finish is clicked. then choose the Don't import setting options
click OK button
- 6) This will start the Android studios
- 7) After it has found the SDK components it will redirect to the welcome dialog box
click on next
choose standard & click next
- 8) Now its time to download SDK component
click finish
- 9) Start new project