**Guide 1**

1. Software Engineering
   1. What is software engineering? How does it compare with traditional engineering and with computer science?

**Software Engineering: the use of engineering process in the development of software.**

**Traditional Engineering: the user of engineering process in areas not pertaining to software**

* 1. Is software engineering a professional discipline, that is, are there professional certifications that one must acquire before being licensed to develop software?

**The IEEE recommends a graudate of Computer Science and a person with 4 years of experience.**

1. Software Project Management
   1. [Peopleware: Productive Projects and Teams](https://books.google.com/books?id=TVQUAAAAQBAJ&printsec=frontcover" \l "v=onepage&q&f=false" \t "/home/justin/Documents\x/_blank), T. DeMarco & T. Lister — Read the introduction to Part I, “Managing the Human Resource” and Chapter 1.
      1. In what ways are software developers similar to and dissimilar from modular components?

**Software Developers are sought for their strengths in particular sub-categories of developing and used for them, instead of trying to devolp in all sub-categories.**

* + 1. In what ways are software projects challenging in terms of sociological issues?

**“People” issues are sometimes harder to solve, for example, if Person A is upset with a project, it’s harder to get the truth out of them, then it say to install a Hard Drive.**

* 1. [Brooks’ Law](https://en.wikipedia.org/wiki/Brooks%E2%80%99_law" \t "/home/justin/Documents\x/_blank)
     1. Know what Brooks’ Law is and how it applies to software development.

**Brooks’ law states that if you add people onboard a project that’s already late, it will further slow-down and complicate things. It is likened to the law of diminishing returns, up to a limit if you increase the input you get a proportional output, after that limit, you take away from the project.**

1. Android
   1. [1.0: Introduction to Android](https://google-developer-training.gitbooks.io/android-developer-fundamentals-course-concepts/content/en/Unit%201/10_c_intro_to_android.html" \t "/home/justin/Documents\x/_blank)
      1. Who controls the Android project and develops most of the Android tools?

**Android was developed and maintained by Google.**

* + 1. Android is based on what operating system and what programming language (or languages)?

**Android is based on Linux!**

* 1. [1.1: Create Your First Android App](https://google-developer-training.gitbooks.io/android-developer-fundamentals-course-concepts/content/en/Unit%201/11_c_create_your_first_android_app.html" \t "/home/justin/Documents\x/_blank)
     1. What IDE is most commonly used to develop Android Applications?

**Android Studio**

* + 1. What is the purpose of the following technologies: the Android manifest; APK; AVD; Gradle.

**Android Manifest: Used for specifying details about the Android app, like permissions, and run time environment.**

**APK: the final app is in a apk file that you can install on Android devices**

**AVD: Android Virtual Device, it is a emulator for android app development on a computer.**

**Gradle: It configures the app’s build configuration. It lets you declare the minSDK version or the minnimum version of Android that the app can work. The targetSDKVersion which is the ideal version of SDK for android to work on.**

* 1. [3.1: The Android Studio Debugger](https://google-developer-training.gitbooks.io/android-developer-fundamentals-course-concepts/content/en/Unit%201/31_c_the_android_studio_debugger.html" \t "/home/justin/Documents\x/_blank)
     1. How is running an application in “debug mode” different from running it in normal mode? Note that this question is not explicitly answered in the text; try to imagine what it would take to support the sorts of debugger functions described in the text.

**Running an app in debugger mode, allows you to setp through the program and check the values of variables at every line, which can help you avoid null variables and other errors that could break your code.**

* + 1. What do the following tools do: LogCat; Profiler (formerly DDMS)?

**LogCat: Similar to a terminal of a command line program, it lets you print out the status of a inequality, or variable or value of something in the program.**

**Profiler: lets you track resource usage, CPU, RAM all that...**