

## LAB - 11

**Aim :- converting apk into jar file.**

### Definition:

Converting an APK into a JAR file is a process used to extract and convert the compiled Dalvik bytecode (.dex files inside an APK) into a Java Archive (.jar) format using tools like dex2jar. This allows developers or security analysts to view the Java-like source code using a decompiler (e.g., JD-GUI). It's commonly used for reverse engineering Android applications to understand their logic or behavior.

```
(kali@kali)-[~]
$ git clone https://github.com/pxb1988/dex2jar.git
Cloning into 'dex2jar'...
remote: Enumerating objects: 13803, done.
remote: Counting objects: 100% (1262/1262), done.
remote: Compressing objects: 100% (449/449), done.
remote: Total 13803 (delta 997), reused 813 (delta 813), pack-reused 12541 (from 2)
Receiving objects: 100% (13803/13803), 9.64 MiB | 163.00 KiB/s, done.
Resolving deltas: 100% (2212/2212), done.

(kali@kali)-[~]
$ cd Desktop

(kali@kali)-[~/Desktop]
$ ls
DivaApplication  Osi.ig  beta.apk  beta.apk.idsig  dex2jar  my-release-key.keystore  zphisher

(kali@kali)-[~/Desktop]
$ cd dex2jar

(kali@kali)-[~/Desktop/dex2jar]
$ ls
DivaApplication.apk  NOTICE.txt  build.gradle  d2j-jasmin  dex-ir  dex-reader-api  dex-tools-v2.4  dex-writer  gradlew  settings.gradle
LICENSE.txt          README.md    d2j-base-cmd  d2j-smali  dex-reader  dex-tools      dex-translator  gradle      gradlew.bat

(kali@kali)-[~/Desktop/dex2jar]
$ chmod +x dex-tools-v2.4/d2j-dex2jar.sh

(kali@kali)-[~/Desktop/dex2jar]
$ dex-tools-v2.4/d2j-dex2jar.sh DivaApplication.apk
dex2jar DivaApplication.apk -> ./DivaApplication-dex2jar.jar

(kali@kali)-[~/Desktop/dex2jar]
$ ls
DivaApplication-dex2jar.jar  NOTICE.txt  d2j-base-cmd  dex-ir  dex-tools  dex-writer  gradlew.bat
DivaApplication.apk        README.md    d2j-jasmin   dex-reader  dex-tools-v2.4  gradle      settings.gradle
LICENSE.txt                 build.gradle  d2j-smali    dex-reader-api  dex-translator  gradlew
```

**Conclusion :-**

Converting an APK into a JAR file allows you to reverse engineer an Android application and understand its internal logic by converting Dalvik bytecode (.dex) into Java bytecode (.jar). Using tools like dex2jar and JD-GUI, developers and security researchers can analyze app functionality or debug issues. This process should always be done ethically and with proper authorization to respect intellectual property and privacy.