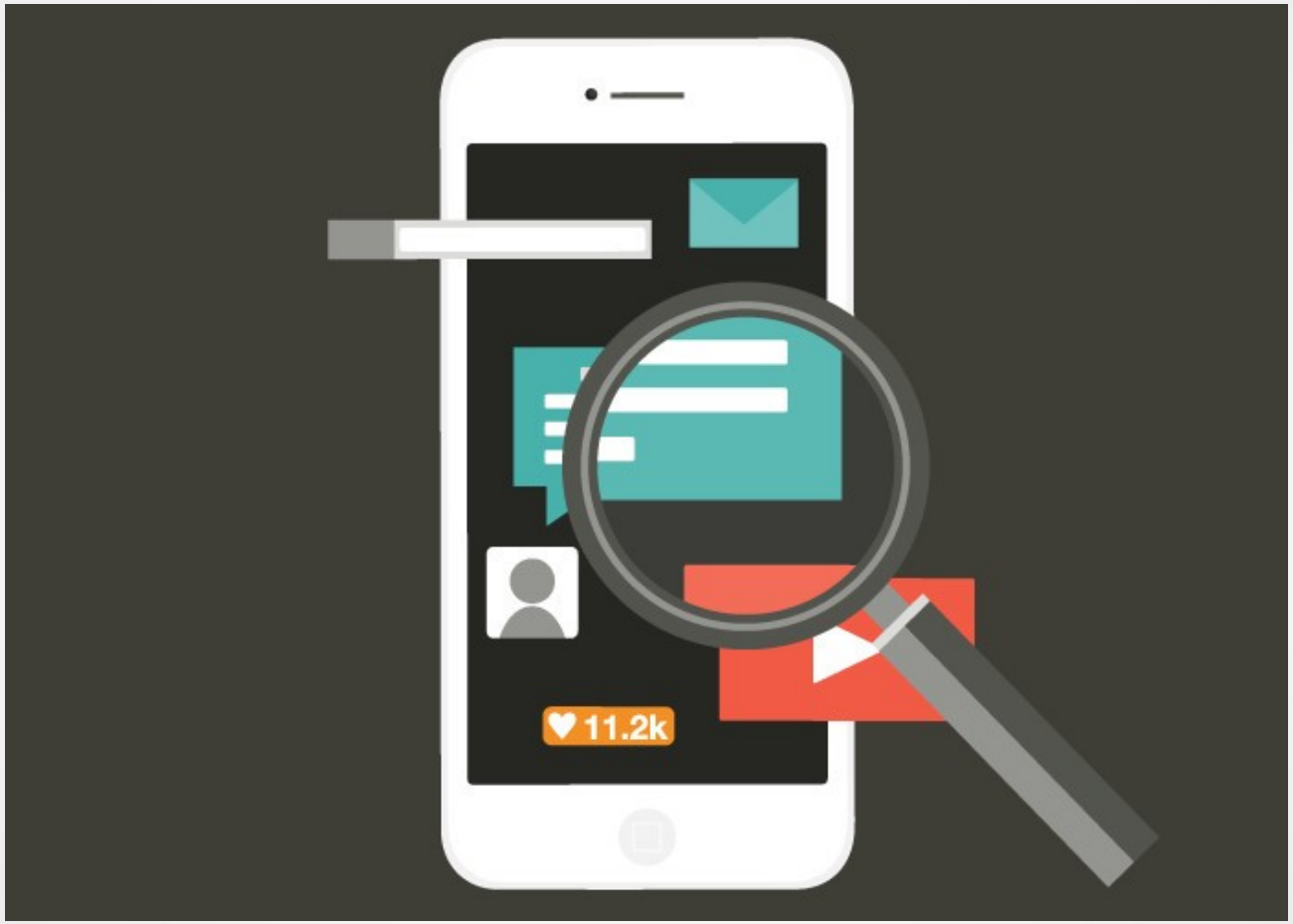
Pentest Mobile



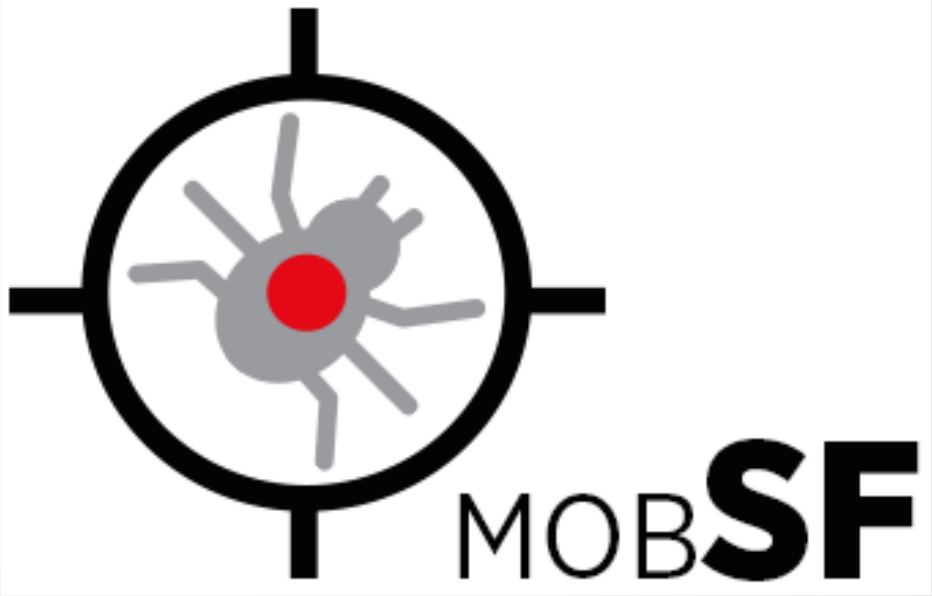
Android x IOS

- Dispositivo (# ou $)
- ADB
- AVD, Genymotion
- Proxy (Burp)

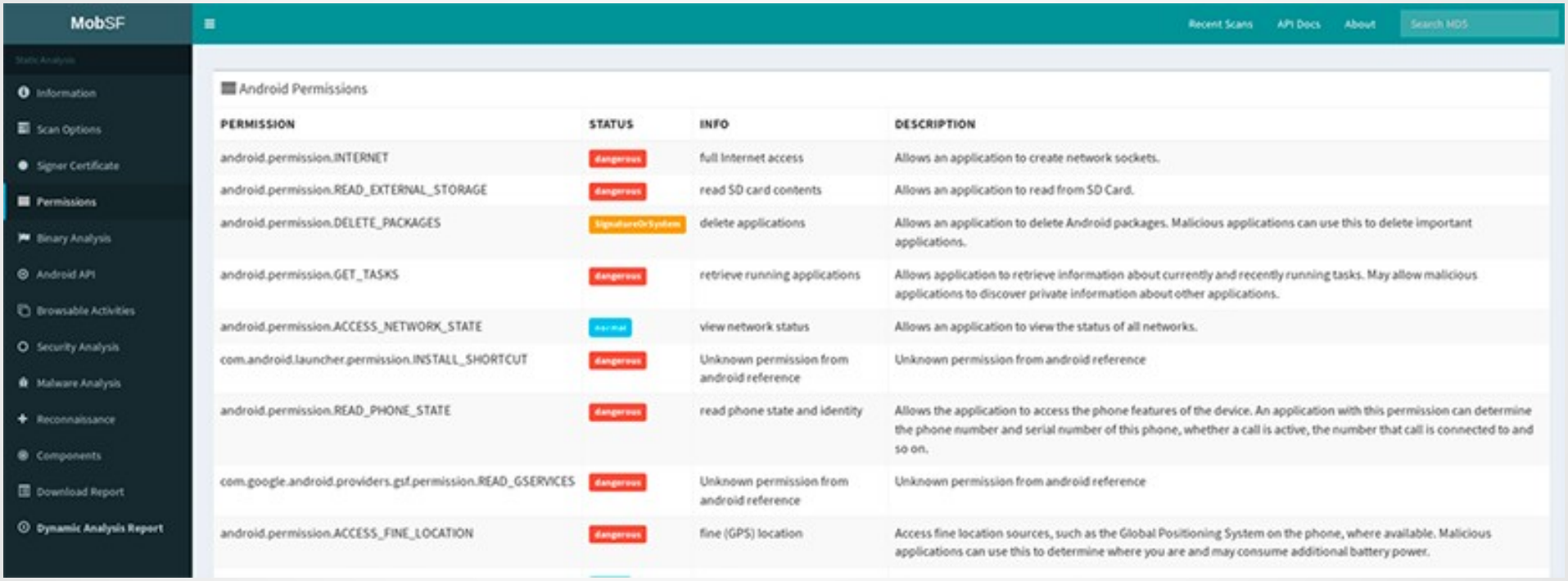
- Jailbreak
- Cydia
- Xcode
- Proxy (Charles Proxy)

Mobile Security Framework (MobSF)

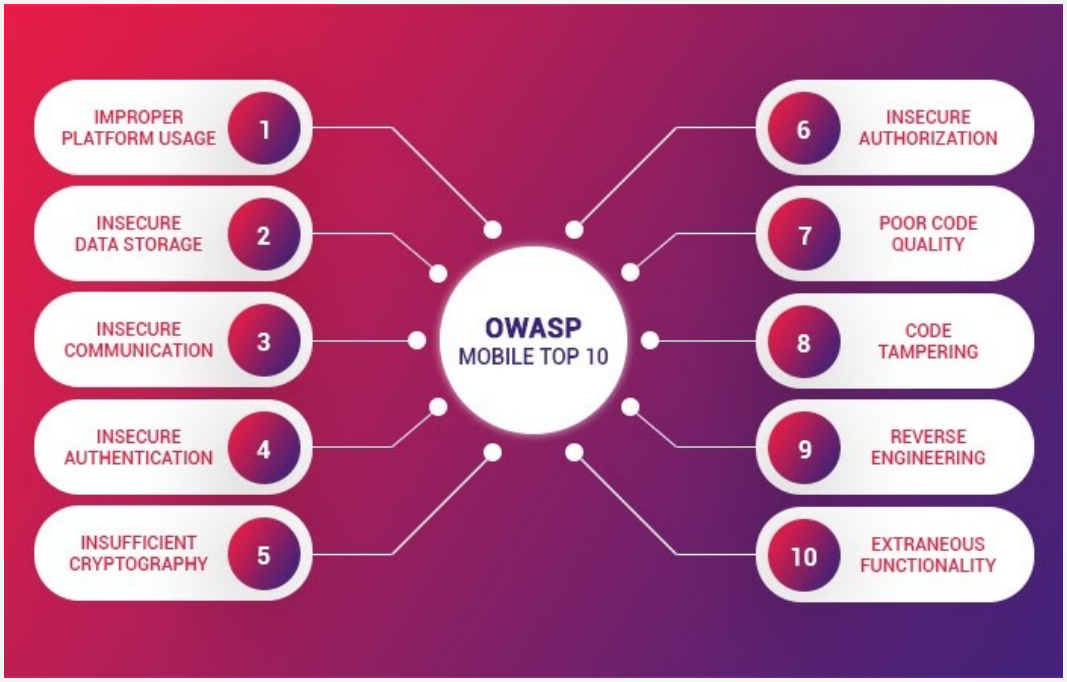
- Scanner
- Análise estática (APK, IPA)
- Relatório de vulnerabilidades
- Análise dinâmica (Frida)



MobSF


MobSF
Recent Scans
API Docs
About
Search MD5
Information
Scan Options
Signer Certificate
Permissions
Binary Analysis
Android API
Browsable Activities
Security Analysis
Malware Analysis
Reconnaissance
Components
Download Report
Dynamic Analysis Report
Android Permissions
PERMISSION
STATUS
INFO
DESCRIPTION
android.permission.INTERNET
dangerous
full Internet access
Allows an application to create network sockets.
android.permission.READ_EXTERNAL_STORAGE
dangerous
read SD card contents
Allows an application to read from SD Card.
android.permission.DELETE_PACKAGES
signatureOrSystem
delete applications
Allows an application to delete Android packages. Malicious applications can use this to delete important applications.
android.permission.GET_TASKS
dangerous
retrieve running applications
Allows application to retrieve information about currently and recently running tasks. May allow malicious applications to discover private information about other applications.
android.permission.ACCESS_NETWORK_STATE
normal
view network status
Allows an application to view the status of all networks.
com.android.launcher.permission.INSTALL_SHORTCUT
dangerous
Unknown permission from android reference
Unknown permission from android reference
android.permission.READ_PHONE_STATE
dangerous
read phone state and identity
Allows the application to access the phone features of the device. An application with this permission can determine the phone number and serial number of this phone, whether a call is active, the number that call is connected to and so on.
com.google.android.providers.gsf.permission.READ_GSERVICES
dangerous
Unknown permission from android reference
Unknown permission from android reference
android.permission.ACCESS_FINE_LOCATION
dangerous
fine (GPS) location
Access fine location sources, such as the Global Positioning System on the phone, where available. Malicious applications can use this to determine where you are and may consume additional battery power.

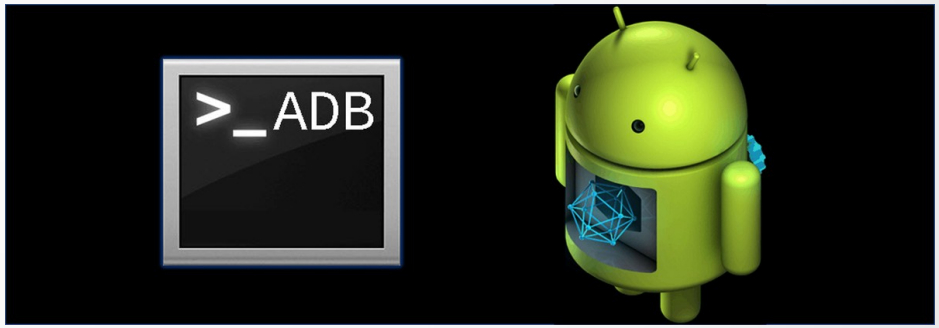
OWASP Mobile top 10



- www.owasp.org/index.php/OWASP_Mobile_Security_Testing_Guide#tab=Main
- www.owasp.org/index.php/Mobile_Top_10_2016-Top_10

Android Debug Bridge (ADB)

- Ponte de comunicação entre o terminal e o dispositivo móvel.
- Instala e desinstala APKs
- Comandos Shell
- Copia e envia arquivos para o dispositivo

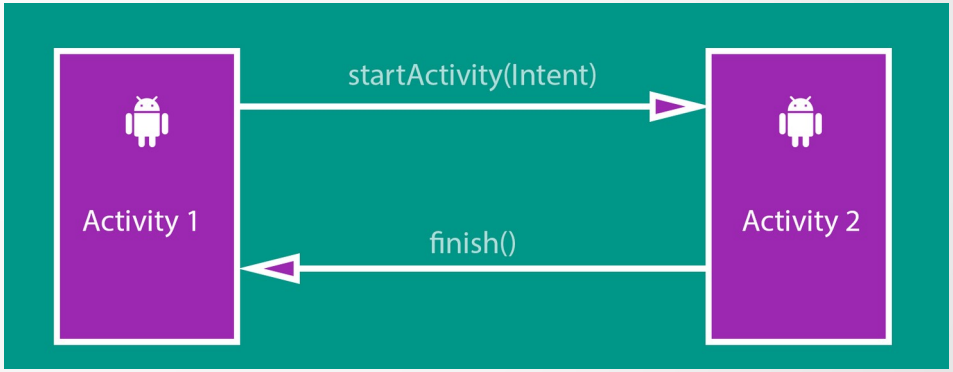


PM / AM

- Package Manager
- Listar pacotes
- Desinstalar pacotes

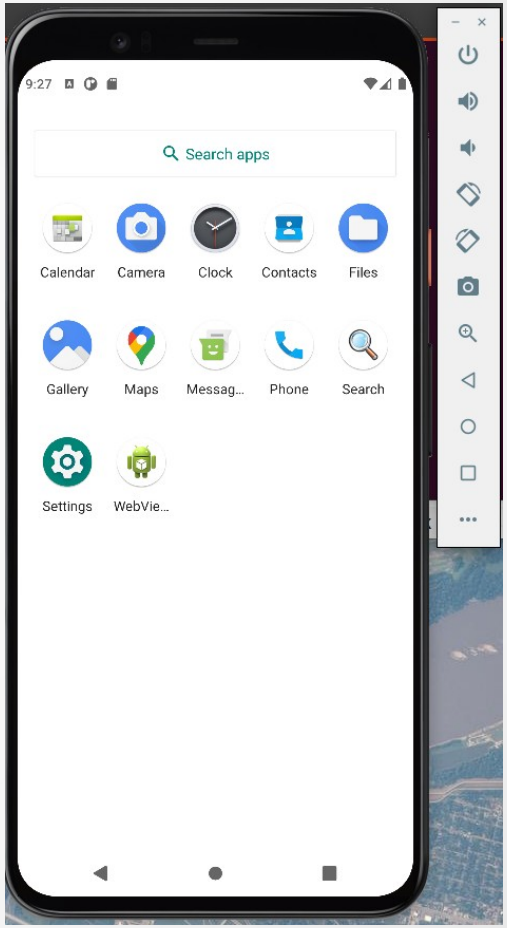
- Activity Manager
- Inicia/para uma atividade
- Envia Broadcast

```
platform-tools — -bash — 99×19
~/canary_fresh_sdk/platform-tools — -bash
[lgleason@MacBook-Pro-40:~/canary_fresh_sdk/platform-tools$ ./adb shell pm list packages
package:com.android.cts.priv.ctsshim
package:com.google.android.ext.services
package:com.android.providers.telephony
package:com.android.providers.calendar
package:com.android.providers.media
package:com.google.android.ext.shared
package:com.android.iotlauncher.ota
package:com.android.documentsui
package:com.android.externalstorage
package:com.android.htmlviewer
package:com.android.companiondevicemanager
package:com.android.providers.downloads
package:com.google.android.things.internal.media
package:com.google.android.iot.frameworkpackagestubs
package:com.android.defcontainer
package:com.android.pacprocessor
package:com.google.wifisetup
package:com.android.certinstaller
```



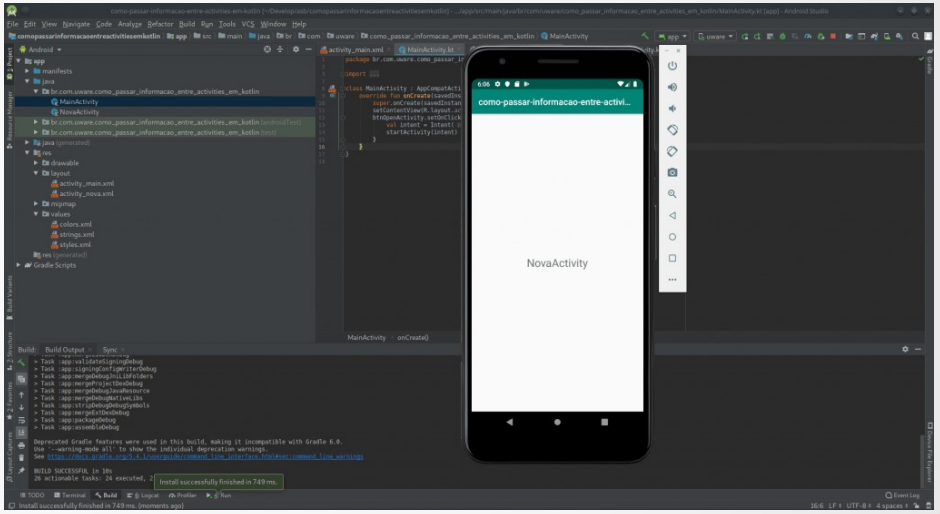
AVD (Android Virtual Device)

- Ambiente virtual que emula um dispositivo físico
- Fácil execução pelo Emulator (Executa uma AVD)
- Escolha entre versões Android (incluindo PlayStore)



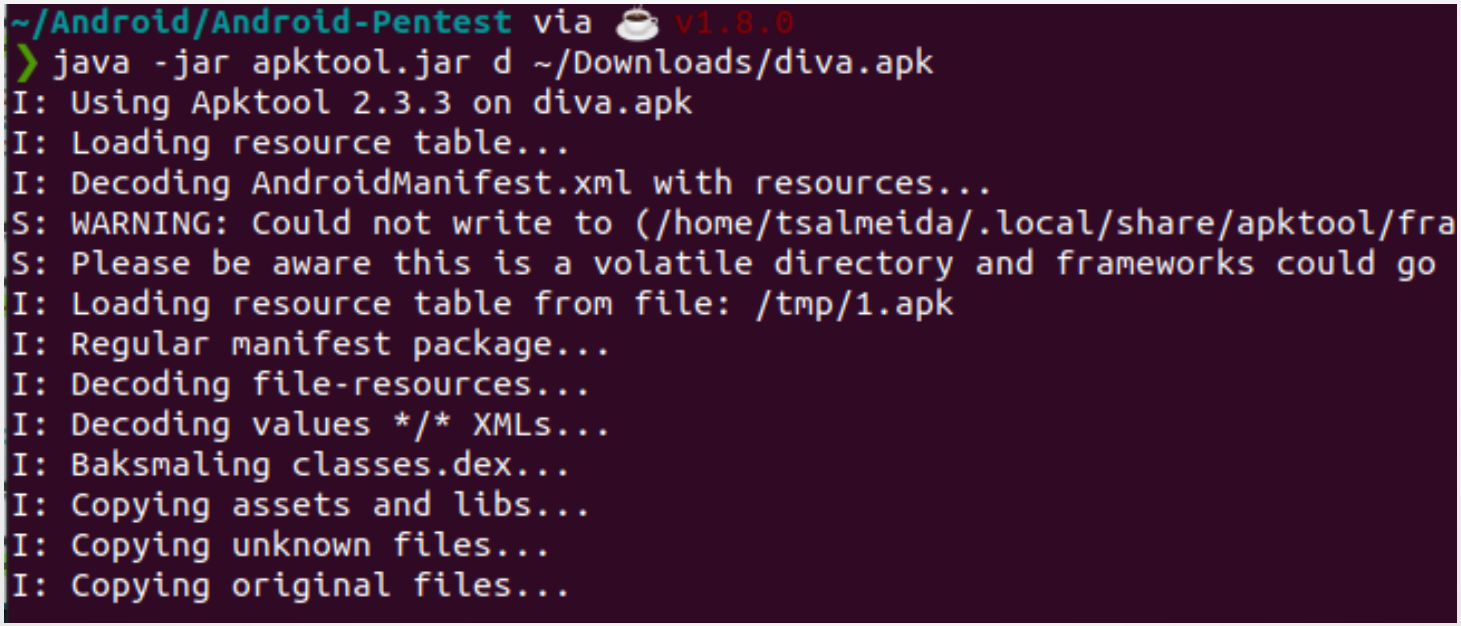
Android Studio

- Ambiente de desenvolvimento Android
- Inclui (ADB, AVD entre outros)
- Debug



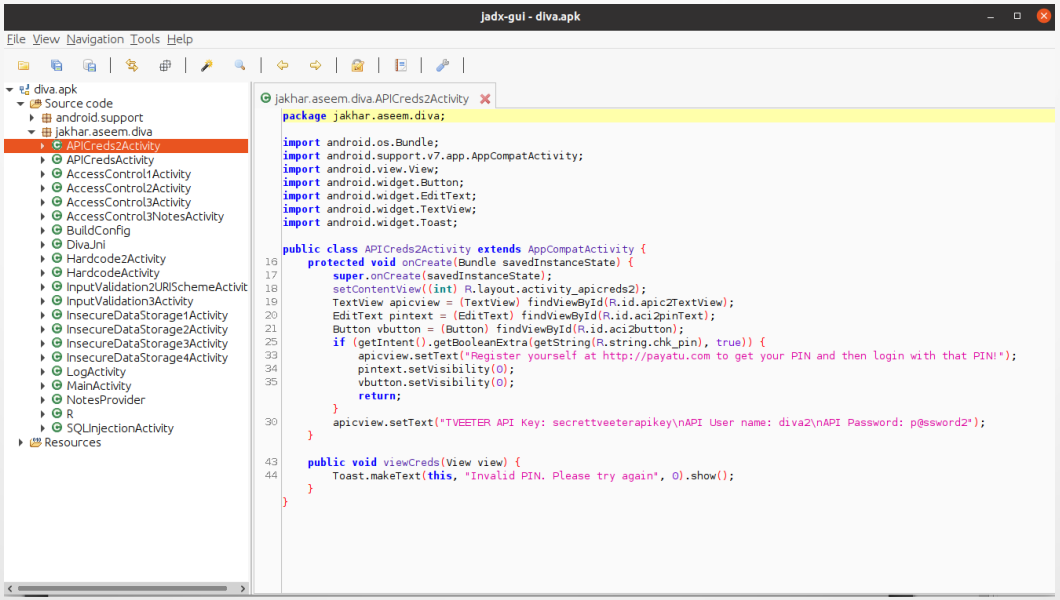
APKTool

- Engenharia reversa
- Compila / Descompila APKs



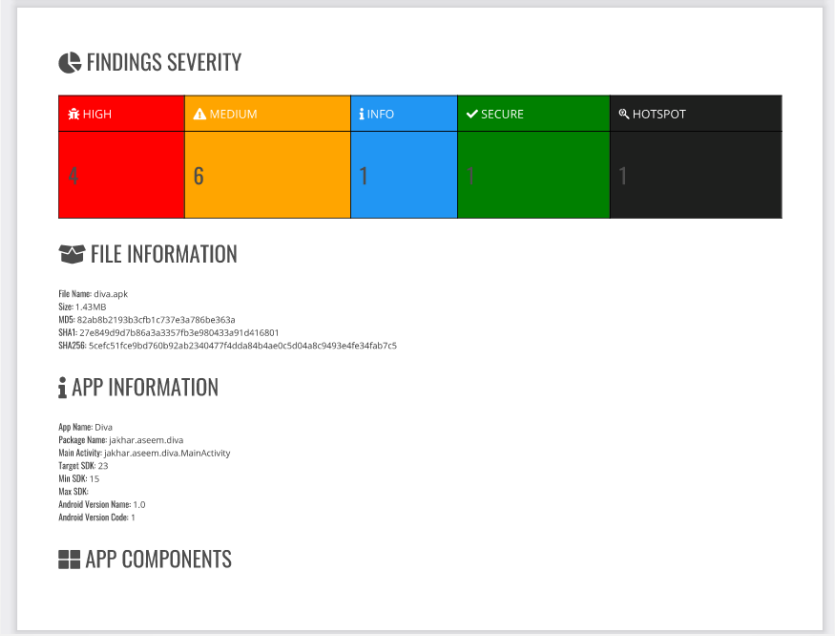
JADX e JDGui

- Engenharia reversa
- Dex2Jar
- Código + compreensível (em Java)
- Contém GUI (Interface gráfica)



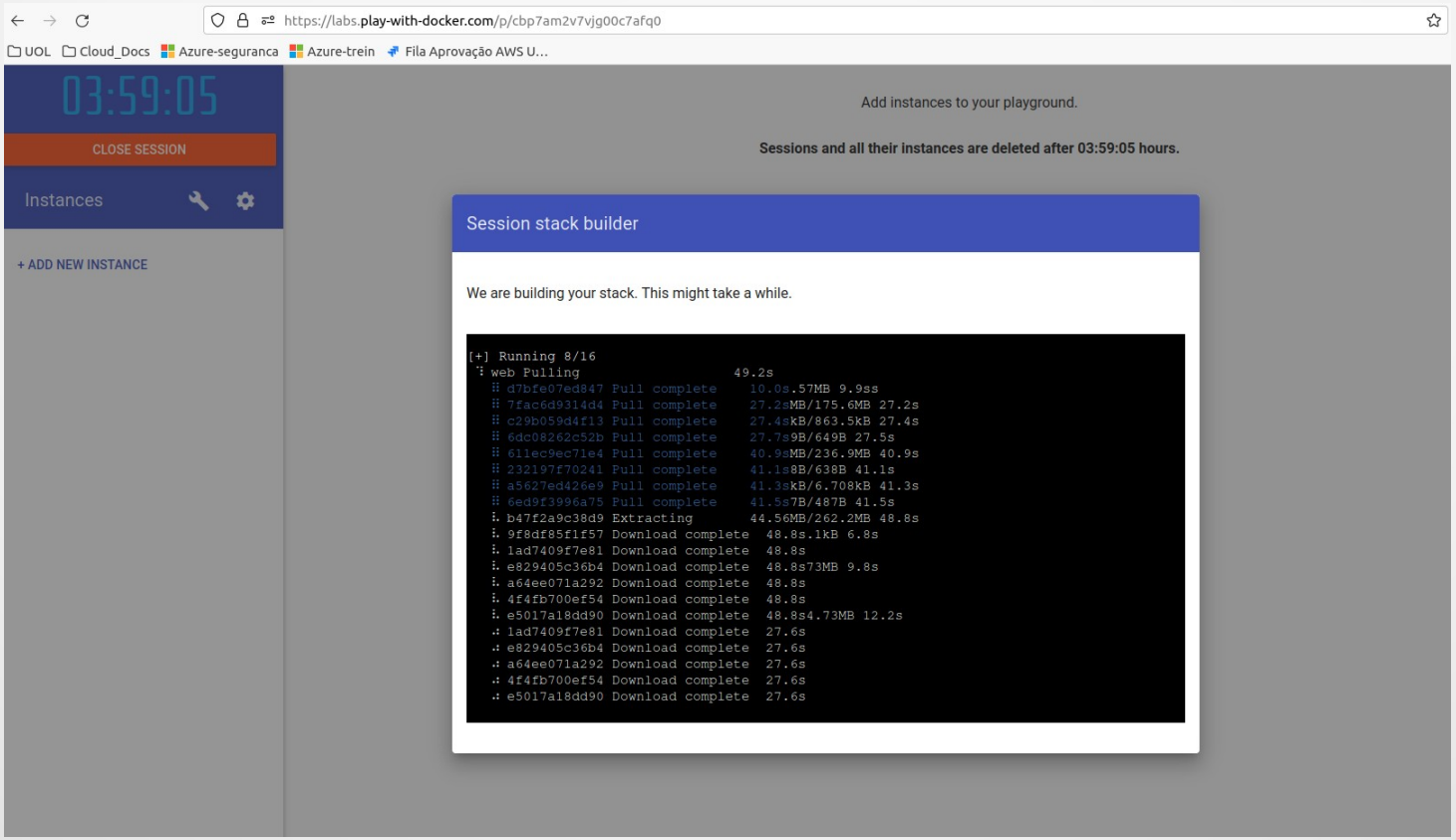
Instalação MobSF

- Instalação local (setup.sh, setup.bat)
- Via Docker Image (não executa análise dinâmica)



MobSF sem instalação

- PlayWithDocker
- Direto navegador

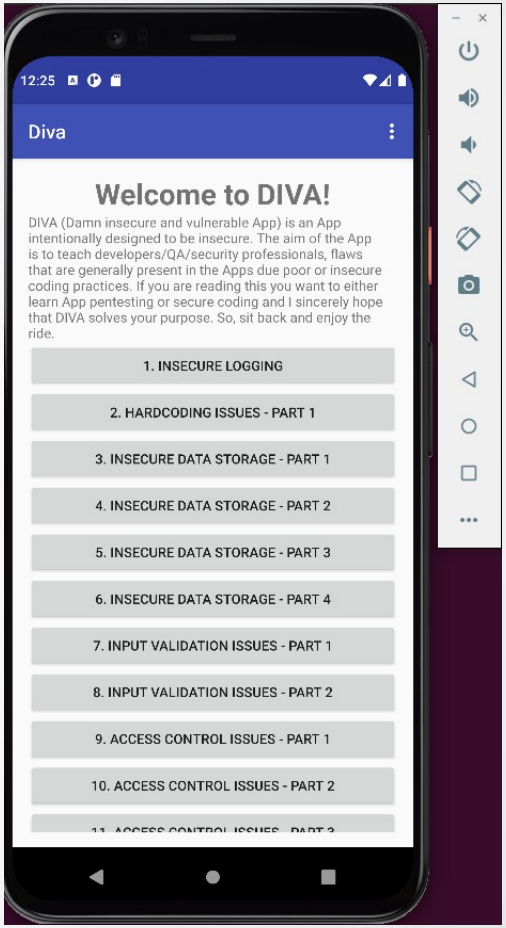


DIVA

- Damn insecure and vulnerable app
- Exploração de falhas

Outros APPs:

- GoatDroid
- Fourgoats



Baixando APPs

- APK Downloader
- Direto GooglePlay
- APKpure
- Baixar versões + antigas

Fim

Obrigado!