

National Forensic Sciences University
School of Cyber Security and Digital Forensics

Practical List

Instructor Name: Dr. Digvijaysinh M. Rathod / Dr. Pratik Patel / Dr. Jay Teriya / Dr. Ramya Shah

Course Name: MTech CS, Sem-II / MTech AI, Sem-II / M Sc CS, Sem-II / B Tech – M Tech CSE (CS), Sem – VIII

Subject Name: Mobile Security and Forensics

Google Classroom submission will be open on: 25th Feb 2025 for submission

Sr. No	Practical Description / Title	Tools and Technology	Submission Date
1.	Demonstration of Android Application Framework component such as Activity and android manifest file etc. using Android Studio	Android Studio and AVD / Genymotion	10 th Feb 2025
2.	Demonstration of Android Intent	Android Studio and AVD / Genymotion	10 th Feb 2025
3.	Demonstration of Android Intent Filter	Android Studio and AVD / Genymotion	10 th Feb 2025
4.	Demonstration of Android Content Provider	Android Studio and AVD / Genymotion	10 th Feb 2025
5.	Demonstration of Android Broadcast Receiver	Android Studio and AVD / Genymotion	10 th Feb 2025
6.	Demonstration of Android Security Permission Model	Android Studio and AVD / Genymotion	10 th Feb 2025
7.	Demonstration of Android Services	Android Studio and AVD / Genymotion	10 th Feb 2025
8.	Configuration of Santoku OS	Oracle Virtual Machine and Santoku iso	10 th Feb 2025
9.	Configuration of Genymotion	Oracle Virtual Machine	10 th Feb 2025
10.	Demonstration of ADB commands	Santoku and AVD (Genymotion)	10 th Feb 2025
11.	Demonstration of Android Boot Process using ADB	Santoku and AVD (Genymotion)	10 th Feb 2025
12.	Configuration of DIVA	Santoku and AVD (Genymotion)	10 th Feb 2025
13.	Reverse Engineering using APKTools	Santoku and diva.apk	10 th Feb 2025
14.	Reverse Engineering using Haxdump Dex Dump and d2j	Santoku and diva.apk	10 th Feb 2025
15.	Reverse Engineering using dex2jar and JDGUI	Santoku and diva.apk	10 th Feb 2025
16.	Request interception using BurpSuit	Santoku, AVD (Genymotion) and Diva.apk	10 th Feb 2025
17.	Configuration of Insecure Bank2	Santoku, AVD (Genymotion)	10 th Feb 2025
18.	Configuration of OWASP GoatDroid	Santoku, AVD (Genymotion)	10 th Feb 2025
19.	Configuration of Open GApps	Santoku, AVD (Genymotion)	10 th Feb 2025
20.	Insecure Logging – Vulnerability	Santoku, AVD (Genymotion) and DIVA	10 th Feb 2025
21.	Hard Coding Issue – Vulnerability	Santoku, AVD (Genymotion) and DIVA	10 th Feb 2025
22.	Insecure Data Storage (Shared Preference) – Vulnerability	Santoku, AVD (Genymotion) and DIVA	10 th Feb 2025
23.	Insecure Data Storage (SD Card) – Vulnerability	Santoku, AVD (Genymotion) and DIVA	10 th Feb 2025
24.	Insecure Data Storage (Temp File) – Vulnerability	Santoku, AVD (Genymotion) and DIVA	10 th Feb 2025
25.	Insecure Data Storage (SQLite Database) – Vulnerability	Santoku, AVD (Genymotion) and DIVA	10 th Feb 2025
26.	Input Validation and Data Sanitization (SQL Injection) – Vulnerability	Santoku, AVD (Genymotion) and DIVA	10 th Feb 2025
27.	Input Validation and Data Sanitization (Web View) – Vulnerability	Santoku, AVD (Genymotion) and DIVA	10 th Feb 2025
28.	Access Control Issue – Vulnerability	Santoku, AVD (Genymotion) and DIVA	10 th Feb 2025
29.	Authentication Based Access Control – Vulnerability	Santoku, AVD (Genymotion) and DIVA	10 th Feb 2025
30.	Configuration of Drozer	Santoku and AVD (Genymotion)	10 th Feb 2025
31.	Security Auditing of DIVA using Drozer	Santoku, AVD (Genymotion) and Drozer	10 th Feb 2025
32.	Security Auditing of Insecure Bank using Drozer	Santoku, AVD (Genymotion) and Drozer	10 th Feb 2025
33.	Security Auditing of OWASP GoatDroid using Drozer	Santoku, AVD (Genymotion) and Drozer	10 th Feb 2025
34.	Package listing of android app using app.package.list	Santoku, AVD (Genymotion) and Drozer	10 th Feb 2025
35.	Find Debuggable android application	Santoku, AVD (Genymotion) and Drozer	10 th Feb 2025
36.	Find attack surface of DIVA	Santoku, AVD (Genymotion), Drozer and DIVA	10 th Feb 2025
37.	SQL Injection Vulnerability of DIVA using Drozer Modules	Santoku, AVD (Genymotion), Drozer and DIVA	10 th Feb 2025
38.	Configuration of MobSF (Mobile Security Framework)	Windows and MobSF	25 th Feb 2025
39.	Security Auditing using MobSF (Mobile Security Framework)	Windows, MobSF and DIVA	25 th Feb 2025
40.	Configuration of Frida	Windows / Linux	25 th Feb 2025
41.	Testing and Evaluation of Android App using Frida	Windows / Linux, Frida and Diva	25 th Feb 2025
42.	Dynamic Analysis using MobSF and Frida	Windows / Linux, Frida and Diva	25 th Feb 2025
43.	Configuration of OWASP Security Shepherd – Mobile Security platform	Windows / Linux and OWASP Security Shepherd VM	Self-Study – 25 th Feb 2025
44.	Practical: 01 OWASP Security Shepherd – Mobile Security platform	Windows / Linux and OWASP Security Shepherd VM	Self-Study – 25 th Feb 2025
45.	Practical: 02 OWASP Security Shepherd – Mobile Security platform	Windows / Linux and OWASP Security Shepherd VM	Self-Study – 25 th Feb 2025
46.	Practical: 03 OWASP Security Shepherd – Mobile Security platform	Windows / Linux and OWASP Security Shepherd VM	Self-Study – 25 th Feb 2025
47.	Practical: 04 OWASP Security Shepherd – Mobile Security platform	Windows / Linux and OWASP Security Shepherd VM	Self-Study – 25 th Feb 2025