**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**

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| **Sr. No** | **Practical Description / Title** | **Tools and Technology** | **Submission Date** |
|  | Demonstration of Android Application Framework component such as Activity and android manifest file etc. using Android Studio | Android Studio and AVD / Genymotion | 10th Feb 2025 |
|  | Demonstration of Android Intent | Android Studio and AVD / Genymotion | 10th Feb 2025 |
|  | Demonstration of Android Intent Filter | Android Studio and AVD / Genymotion | 10th Feb 2025 |
|  | Demonstration of Android Content Provider | Android Studio and AVD / Genymotion | 10th Feb 2025 |
|  | Demonstration of Android Broadcast Receiver | Android Studio and AVD / Genymotion | 10th Feb 2025 |
|  | Demonstration of Android Security Permission Model | Android Studio and AVD / Genymotion | 10th Feb 2025 |
|  | Demonstration of Android Services | Android Studio and AVD / Genymotion | 10th Feb 2025 |
|  | Configuration of Santoku OS | Oracle Virtual Machine and Santoku iso | 10th Feb 2025 |
|  | Configuration of Genymotion | Oracle Virtual Machine | 10th Feb 2025 |
|  | Demonstration of ADB commands | Santoku and AVD (Genymotion) | 10th Feb 2025 |
|  | Demonstration of Android Boot Process using ADB | Santoku and AVD (Genymotion) | 10th Feb 2025 |
|  | Configuration of DIVA | Santoku and AVD (Genymotion) | 10th Feb 2025 |
|  | Reverse Engineering using APKTools | Santoku and diva.apk | 10th Feb 2025 |
|  | Reverse Engineering using Haxdump Dex Dump and d2j | Santoku and diva.apk | 10th Feb 2025 |
|  | Reverse Engineering using dex2jar and JDGUI | Santoku and diva.apk | 10th Feb 2025 |
|  | Request interception using BurpSuit | Santoku, AVD (Genymotion) and Diva.apk | 10th Feb 2025 |
|  | Configuration of Insecure Bank2 | Santoku, AVD (Genymotion) | 10th Feb 2025 |
|  | Configuration of OWASP GoatDroid | Santoku, AVD (Genymotion) | 10th Feb 2025 |
|  | Configuration of Open GApps | Santoku, AVD (Genymotion) | 10th Feb 2025 |
|  | Insecure Logging – Vulnerability | Santoku, AVD (Genymotion) and DIVA | 10th Feb 2025 |
|  | Hard Coding Issue – Vulnerability | Santoku, AVD (Genymotion) and DIVA | 10th Feb 2025 |
|  | Insecure Data Storage (Shared Preference) – Vulnerability | Santoku, AVD (Genymotion) and DIVA | 10th Feb 2025 |
|  | Insecure Data Storage (SD Card) – Vulnerability | Santoku, AVD (Genymotion) and DIVA | 10th Feb 2025 |
|  | Insecure Data Storage (Temp File) – Vulnerability | Santoku, AVD (Genymotion) and DIVA | 10th Feb 2025 |
|  | Insecure Data Storage (SQLight Database) – Vulnerability | Santoku, AVD (Genymotion) and DIVA | 10th Feb 2025 |
|  | Input Validation and Data Sanitization (SQL Injection) – Vulnerability | Santoku, AVD (Genymotion) and DIVA | 10th Feb 2025 |
|  | Input Validation and Data Sanitization (Web View) – Vulnerability | Santoku, AVD (Genymotion) and DIVA | 10th Feb 2025 |
|  | Access Control Issue – Vulnerability | Santoku, AVD (Genymotion) and DIVA | 10th Feb 2025 |
|  | Authentication Based Access Control – Vulnerability | Santoku, AVD (Genymotion) and DIVA | 10th Feb 2025 |
|  | Configuration of Drozer | Santoku and AVD (Genymotion) | 10th Feb 2025 |
|  | Security Auditing of DIVA using Drozer | Santoku, AVD (Genymotion) and Drozer | 10th Feb 2025 |
|  | Security Auditing of Insecure Bank using Drozer | Santoku, AVD (Genymotion) and Drozer | 10th Feb 2025 |
|  | Security Auditing of OWASP GoatDroid using Drozer | Santoku, AVD (Genymotion) and Drozer | 10th Feb 2025 |
|  | Package listing of android app using app.package.list | Santoku, AVD (Genymotion) and Drozer | 10th Feb 2025 |
|  | Find Debuggable android application | Santoku, AVD (Genymotion) and Drozer | 10th Feb 2025 |
|  | Find attack surface of DIVA | Santoku, AVD (Genymotion), Drozer and DIVA | 10th Feb 2025 |
|  | SQL Injection Vulnerability of DIVA using Drozer Modules | Santoku, AVD (Genymotion), Drozer and DIVA | 10th Feb 2025 |
|  | Configuration of MobSF (Mobile Security Framework) | Windows and MobSF | 25th Feb 2025 |
|  | Security Auditing using MobSF (Mobile Security Framework) | Windows, MobSF and DIVA | 25th Feb 2025 |
|  | Configuration of Frida | Windows / Linux | 25th Feb 2025 |
|  | Testing and Evaluation of Android App using Frida | Windows / Linux, Frida and Diva | 25th Feb 2025 |
|  | Dynamic Analysis using MobSF and Frida | Windows / Linux, Frida and Diva | 25th Feb 2025 |
|  | Configuration of OWASP Security Shepherd – Mobile Security platform | Windows / Linux and OWASP Security Shepherd VM | Self-Study – 25th Feb 2025 |
|  | Practical: 01 OWASP Security Shepherd – Mobile Security platform | Windows / Linux and OWASP Security Shepherd VM | Self-Study – 25th Feb 2025 |
|  | Practical: 02 OWASP Security Shepherd – Mobile Security platform | Windows / Linux and OWASP Security Shepherd VM | Self-Study – 25th Feb 2025 |
|  | Practical: 03 OWASP Security Shepherd – Mobile Security platform | Windows / Linux and OWASP Security Shepherd VM | Self-Study – 25th Feb 2025 |
|  | Practical: 04 OWASP Security Shepherd – Mobile Security platform | Windows / Linux and OWASP Security Shepherd VM | Self-Study – 25th Feb 2025 |