

Certified Android Security Analyst (CASA)

This course will delve into code-level security, providing you with an understanding of how the backend code of mobile applications works. You will learn to identify the potential attack vectors on these applications, allowing you to perform penetration tests and gather valuable insights. The findings from these tests will help in creating effective strategies to enhance the security of Android applications.



Module 1

- Introduction of Genymotion
- Creating devices on Emulator
- Setting up the burp proxy
- Installation of Root Certificate
- Introduction of Burp Proxy
- Traffic Analysis with Burp
- Introduction of adb



Module 2

- Android Architecture
- Major Components of Android
- Android Security Model
- Android Application Components
- Android Application Development Cycle
- Android Startup Process



Module 3

- Android Application Building
- Decompile With Jadx
- Decompile with Apkeasy Tool
- Weak Server Side Controls
- Insecure Data Storage
- Hardcoding Issues
- Detection of Insecure Logging
- Database Insecure Storage



Module 4

- Reading Temporary Files
- SQL Injection in Android
- Web View Vulnerability
- Access-Related Issues
- Authorization Bypass
- Understanding and Exploitation of Content Providers



Module 5

- Input Validation leading to DOS Attack
- Root Detection Bypass
- SSL Pinning Bypass
- Inspection of Certificate and Signing Schema



Tools

1. Apktool
2. Adb
3. Jadx
4. Genymotion
5. Noxplayer
6. Yaazhini tool
7. Burpsuite
8. Drozer
9. Mobsf

