

Education Icon of Hyderabad -2018

Times of India Group

Education Icon of Hyderabad -2017 **Times of India Group** 

Institute of the year - 2015 **Silicon India** 

# Certificate Program in

# ETHICAL HACKING AND CYBER SECURITY

Class Room | Online | Corporate Training





# **Cyber Security FAQ's**



# **DURATION**

45 Days



# **ELIGIBILITY**

Any Graduate



# **CERTIFICATIONS**

Digital Nest Certificate



## LAPTOP CONFIGURATION

OS: Windows X, I5 7th generation Processor, Ram: 8GB, HDD: 1 TB



#### **ROLES**

Security Architect, Security Consultant, Penetration Tester, Chief Information Security Officer, Cryptographer, Security Analyst, Security Engineer



## **AVG PACKAGES**

3-13 Lakh p.a.



# PRE REQUISITE

Familiarity with C, C++, PHP, Linux, Unix, Windows, Saas Model, etc



## WHO CAN LEARN

IT Professionals, Administrators, Developers, Graduates, Job Seekers, End users

# **KEY HIGHLIGHTS**



Training by Real Time Experts



Material, Case Studies & Assignments



One-On-One with Industry Mentors



Dedicated Student Manager



100% Assured Placement Assistance



Hands on Training



Doubt Clarification Sessions



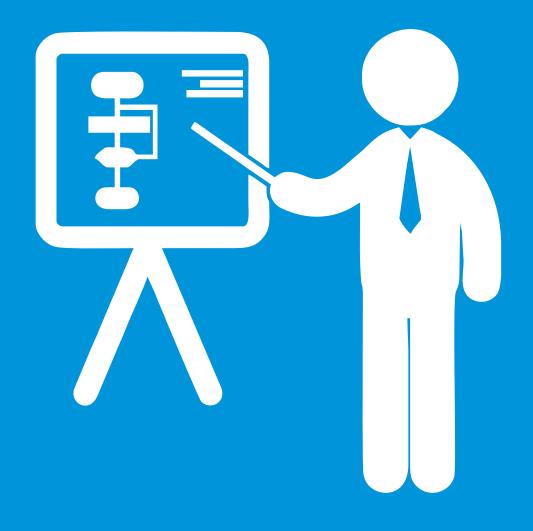
Limited Strength



Resume & Interview Prep Guidance



Course is curated by subject matter experts in SalesForce



# **COURSE STRUCTURE**

# **PENETRATION TESTING:**

Advanced In-detail Web & Mobile Application:

Vulnerability Assessment & Penetration Testing: Application Security with Real Time Knowledge:

1. Introduction to the web Application
Vulnerability Assessment &
Penetration Testing

#### 2. Standards to Follow

- 1. OWASP TOP 10 overview
- 2. OWASP Security testing methodology
- 3. SANS Top 25 overview

# 3. Intro to the Bug Bounty Program

- 1. Different Bug Bounty Platforms
- 2. Understanding In-Scope & Out-of-Scope
- 3. Understanding the Vulnerability Priority
- 4. Explanation about any one Bug bounty platform
- 5. About CTF in bug bounty (i.e. Hackerone)

# 4. Application Analysis

- Understanding difference between Static
   Dynamic Applications
- 2. Analysis of the application flow
- 3. Different categories of applications
- 4. Analysis of the application functionalities and their functional cycle

# 5. Authentication Testing

- 1. About Authentication Process Cycle
- 2. Understanding different login patterns
- 3. Introduction to Burp Suite
- 4. Authentication Bypass using SQL payloads
- 5. Login Brute force
- 6. User Enumeration
- 7. Hard Coded Credentials
- 8. Insecure Logout Implementation
- 9. Strict Transport Security Not Enforced

- Testing OTP Length, Duration & Rate Limitation
- 11. Mobile/Email OTP Bombing
- 12. Leakage of OTP in Later Response
- 13. Response Tampering OTP Bypass
- 14. Testing IDOR Token Based Authentication
- 15. Sending User Credentials using GET method

# **6. Testing the User Registration Process**

- 1. About User Registration Process Cycle
- 2. Testing Input Validation XSS
- Verification of Email address / Mobile Number
- 4. Weak Username or un-enforced policies
- 5. Weak password policies

# 7. Testing Password Reset Functionality

- 1. About Password Reset Functionality Cycle
- 2. Testing authorization issue in-case of UID & Token
- 3. Testing Life time of reset link
- 4. Predictability of the token encryption (Base64 based encryption)
- 5. Testing password reset token expiration

# 8. Sensitive Data Exposure

- About Sensitive Data Exposure depending on Application Category
- 2. Insecure Error Handling
- 3. Information disclosure via metadata
- 4. Insecure communication channel
- 5. Hidden/sensitive directories & files in robots.txt
- 6. Return of sensitive information in later responses (example: password, otp, other user's private/sensitive information)

#### 9. API Communication

- 1. About API Communication
- 2. Authorization Header Analysis
  - Basic Authentication token
  - Barer Token
  - None
  - Custom
- 3. About JWT Token pattern
- 4. Un-Authenticated/Anonymous Access

# 10. Testing for Cookie Attacks

- 1. Understanding the cookie Life Cycle
- 2. Weakness in cookie life cycle
- 3. Cookie with sensitive data
- 4. XSS via cookie
- 5. Missing HTTP only Flag
- 6. Missing Secure Flag
- 7. Analysing authorization/privileges implementation through cookies

# 11. Headers & Policy Scrutiny

- 1. CRLF Injection
- 2. Host Header Injection
- 3. Cross Origin Resource Sharing
- 4. Click Jacking
- 5. URL Redirection

# 12. Session Management Issues

- 1. Testing for Insecure Logout Implementation
- 2. Testing for CSRF Vulnerability
- 3. Bypass Methods of CSRF Vulnerability

# 13. Testing for Authorization testing

- 1. Concept of Access Control & RBAC
- 2. Insecure Direct Object Reference (IDOR)
- 3. Testing for Vertical Privilege Escalation
- 4. Testing Horizontal Privilege Escalation
- 5. Directory Traversal

# 14. Data Validation Testing

- 1. Malicious file upload
- 2. Cross Site Scripting
- 3. CSV Injection
- 4. HTTP Parameter Solution

# **15. Injections** (DAY 28-29)

- 1. Remote Code Execution
- 2. SQL Injection
- 3. XML Injection / XXE
- 4. OS Command Injection

# 16. Testing for Server Side Issues

- 1. Testing for SSRF
- 2. Template Injection

# **17.Business Logic Issues**

- 1. About different payment methods Integration
- 2. About Payment Tampering Method
- 3. Straight Forward Payment Tampering
- 4. Add-on Based Payment Tampering
- 5. Coupon Based Payment Tampering
- Longitude and Latitude based payment tampering (In Case of CAB booking, if validation process depends on Long & Lat)
- 7. Failure to Success Journey
- 8. HTTP Parameter pollution (In case of Amount parameter)
- Getting High Benefits Features with Low Benefit cost (In case of Feature id)
- 10. Test with Fake DC/CC with CVV
- 11. Sensitive information Leakage
- 12. Insecure Direct Object Reference (Getting Booking & Billing Details, in case of E-Comers application)
- 13. Testing IDOR (In case QR Code generated based on ID value)
- 14. Bypassing Attaching Mandatory Entities

# 18. Cloud Misconfiguration

1. AWS S3 Bucket Misconfiguration

# 19. Testing for Security Misconfiguration

- 1. Outdated Framework /CRM/ Wordpress
- 2. Enabled Directory Listing
- 3. Default accounts with default passwords

#### 20. Miscellaneous

- 1. Reflected File Download
- 2. Accessing Default Files (i.e. phpmyadmin)

#### 21. Other Vulnerabilities

1. Web Cache Poisoning

# 22. Foot Printing & Information Gathering

- 1. About Red Team Assessment overview (RTA)
- 2. Foot Printing & Info Gathering Concepts

# 23. API testing

- 1. Introduction to postman Collection
- 2. Integrating burp proxy to the postman collection

# **ETHICALHACKING**

# **Introduction to Ethical Hacking:**

- Basics of Ethical Hacking
- Types of Hackers

#### **Reconnaissance:**

- Information Gathering
- Foot Printing

#### **Kali Linux Basics:**

- Basic Commands of Kali Linux
- Configuration of Kali Linux

# **Password Cracking:**

- Password Guessing
- Default passwords
- Password Dictionary Creation

# **Brute Force Attacks:**

- OTP Brute Forcing
- Password Brute Forcing
- Login Brute Forcing

# **Injection Attacks:**

- CSV Injection
- SQL Injection
- XXS Injection

# **Phishing attacks:**

Account Take over

# **Privilege Escalation:**

 Low privilege & High privilege Escalation

# **Cryptography:**

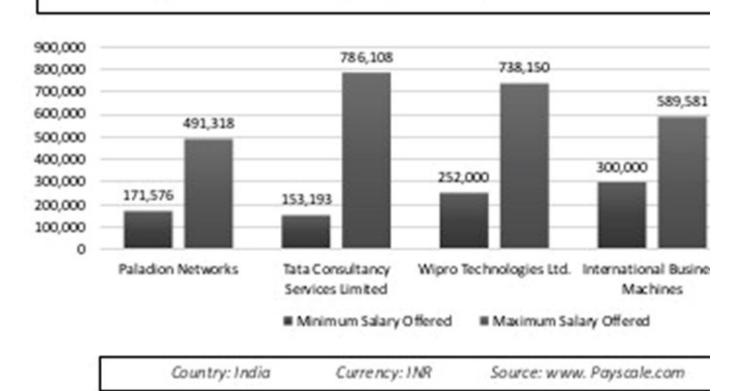
- Encryption
- Decryption

- Web Application Hacking Basics:
- Mobile Application Hacking:
- Vulnerability Analysis:
- Vulnerability Scanning:
- OWASP Top 10:
- Proxies & VPN:
- HTTP parameter pollution Attack:
- User & Password Enumerations:

# **Salary Ranges**

# TOP RECRUITERS IN IN

The figures as depicted by the graph below will provide an Security professionals which the companies are ready to pay reasons why Ethical Hacking programs have become the most de-

















































# **Our Trainees Hail from**

















































# Ready to get incubated in ETHICAL HACKING CYBER SECURITY ets Start

♀ 1st Floor, SNR Towers, Beside BVRIT City Center bus stop, PANJAGUTTA, Hyderabad.

Above Karnataka Bank, Silicon Valley Road, **HITECH-CITY**, Hyderabad.







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