

INTERNET of Things

Smart Living, Smart World Your Comprehensive Guide to IoT



IoT Pentesting

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Program Overview:

The IoT Pentesting Course at Craw Security is designed to equip cybersecurity enthusiasts with the necessary skills to identify and mitigate vulnerabilities in IoT devices and networks. This hands-on course covers the latest techniques and tools used in IoT penetration testing, preparing students to secure IoT systems against cyber threats effectively. Apart from that, this course lays the foundation for aspiring IT professionals by providing them with essential knowledge of security principles.

Program Features:

- ✓ 60 hours of instructor-led training or Live VILT classes.
- ✓ Accredited by the FutureSkills Prime, Approved by the Government of India.
- ✓ The course will be in both English and Hindi mediums.
- Learn from Industry-leading and experienced instructors with extensive industry knowledge.
- ✓ Practical, hands-on training on real IoT devices and networks.
- ✓ Comprehensive coverage of IoT security concepts and methodologies.
- ✓ Access to cutting-edge tools and techniques used in IoT pentesting.
- ✓ Interactive sessions and group activities to enhance the learning experience.
- ✓ Career guidance and job placement assistance.
- ✓ Access course materials and live sessions through both online and offline modes to suit your learning preferences.

Delivery Mode:

Online Bootcamp / Offline Classroom Training / Corporate Training Facility

Prerequisites of Internet of Things Pentesting Course:

Participants should have a basic understanding of networking and cybersecurity concepts. Familiarity with Linux operating systems and programming languages such as Python would be beneficial but not mandatory.

Target Audience:

- ✓ Cybersecurity professionals
- ✓ Network administrators
- ✓ IT professionals
- ✓ Ethical hackers
- ✓ Security enthusiasts, and
- ✓ Anyone who is willing to enhance one's knowledge and seeking entry to this IoT domain in the cybersecurity trajectory.

Key Learning Outcomes:

This IoT Pentesting Course will assist you in the following activities:

✓ Understanding IoT Security Fundamentals: Gain a deep understanding of the fundamental concepts and principles of IoT security, including the unique challenges and vulnerabilities associated with IoT devices and networks.

- ✓ **Identifying IoT Vulnerabilities**: Learn how to identify common vulnerabilities in IoT devices and networks, such as insecure communication protocols, weak authentication mechanisms, and lack of secure update mechanisms.
- Conducting IoT Penetration Testing: Develop the skills to conduct penetration tests on IoT systems, including discovering and exploiting vulnerabilities to assess the security posture of IoT devices and networks.
- ✓ Implementing IoT Security Measures: Learn how to implement security measures to protect IoT devices and networks, including secure configuration, data encryption, and access control mechanisms.
- ✓ Analyzing IoT Security Data: Learn how to analyze and interpret IoT security data, including logs, network traffic, and device behavior, to identify and mitigate security threats.

Certification Alignment:

Our IoT Pentesting Course is genuinely accredited to the FutureSkills Prime, a MeitY — NASSCOM, Digital Skilling Initiative, and approved by the Government of India. Moreover, Craw Security is a proud partner of FutureSkills Prime.

Certification **Details & Criteria**:

Certification Details -

Upon successful completion of the course and passing the examination, participants will receive a certification from Craw Security. The examination assesses the participant's ability to apply IoT Pentesting techniques in a controlled environment. Specific criteria for certification include practical assessments and a theoretical exam.

About the **Exam**:

✓ Number of Questions: 30-35 Questions

✓ Exam Test Duration: 1 Hour

✓ Test Format: Multiple Choice Question (MCQ)

✓ Exam Cost: 600 Inclusive Taxes

Craw Security Certification Criteria:

- ✓ Attend 75% of classes and obtain 50% marks in the corresponding examination.
- ✓ Please note that there is an additional fee for the FutureSkills Prime exam related to this course.

100% Placement with 1 Year Cyber Security Course:

There is a specialized set of Terms and Conditions for a 100% Placement Guarantee with **our 1 Year Cybersecurity Diploma** that needs to be fulfilled by each and every student who is willing to benefit from features from Craw Security. However, we have jotted down all the necessary T&Cs that need to be completed to take the advantage of 100% Placement Guarantee from the Department of Training & Placement by Craw Security:

- ✓ Attendance of 75% should be mandatory.
- ✓ Marks for internal exams should be 80% mandatory.
- ✓ Fees for 1 Year Cybersecurity Diploma Course should be properly paid.
- ✓ Candidate can apply for a job after completion of 6 modules.
- ✓ A candidate is applicable for Mock Interviews/PD Class after completion of 3 modules.
- ✓ Global certifications are required, if needed by companies for jobs.
- ✓ Candidate should be Graduate/Pursuing.
- One-time job Assistance/Placement will be provided, if the candidate misses any interview, Craw Placement Cell will not be liable to re-arrange the interview, and also Craw Academy will not be liable for any refund or future litigations or claims.

- ✓ Package as per candidate's skills or according to company norms.
- ✓ Ideal Candidates can apply for multiple jobs.
- ✓ The Post Placement Process will be provided by the Placement Cell, highly known as the Department of Training and Placement, which is as follows:
 - 1. Documentation
 - 2. Offer Letter
 - 3. Joining Date/Timeline of Joining

What to Choose After this Course:

A person can choose the 1 Year Cybersecurity Diploma Course after the completion of this course or even switch the current course to this 12-course bundle of 1 Year Cybersecurity Diploma Course by Craw Security whose maximum courses are accredited to the FutureSkills Prime, a Meity — NASSCOM, Digital Skilling Initiative, and approved by the Government of India. After doing this course, a person would be eligible to choose from a variety of options for a fruitful professional career in the long run.

Course Curriculum:

Module 01: Overview of IOT Why IOT is so important?

- ✓ Lesson 01: What is IOT?
- ✓ Lesson 02: Why is IoT important?

Module 02: IoT Pentesting

- ✓ Lesson 01: OWASP TOP 10
- ✓ Lesson 02: What is IoT Pentesting
- ✓ Lesson 03: What is IoT Security?
- ✓ Lesson 04: Previous IoT Security Hacks
- ✓ Lesson 05: IoT Vulnerabilities
- ✓ Lesson 06: IoT Pentesting Methodology

Module 03: Introduction of IoT

- ✓ Lesson 01: How does IOT work?
- ✓ Lesson 02: Advantages & Disadvantage's

Module 04: Introduction to Sensor Network

- ✓ Lesson 01: Explanation
- ✓ Lesson 02: Use of sensor with example

Module 05: Communication Models in IoT (Internet of Things)

✓ Lesson 01: Explanation

Module 06: Frequency

- ✓ Lesson 01: What is radio wave?
- ✓ Lesson 02: Radio Frequency Spectrum band
- ✓ Lesson 03: Explanation

Module 07: Wireless protocol

- ✓ Lesson 01: Difference type of protocols
- ✓ Lesson 03: Explanation

Module 08: Comparing web and IOT protocols

✓ Lesson 01: Explanation

Module 09: SPI, UART, I2C

✓ Lesson 01: Explanation

Module 10: Firewall

✓ Lesson 01: Explanation

Module 11: ARDUINO

✓ Lesson 01: Explanation with practical

Module 12: Raspberry

✓ Lesson 01: Explanation with practical

Module 13: Introduction to Mobile app platform

✓ Lesson 01: Explanation

Module 14: Flipper zero

✓ Lesson 01: Explanation with practical

Module 15: Firmware

- ✓ Lesson 01: Usage of firmware for penetester
- ✓ Lesson 02: What is it?
- ✓ Lesson 03: Extracting squashfs file system from file system
- ✓ Lesson 04: How to obtain firmware?
- ✓ Lesson 05: Explanation with practical

Module 16: Analysing IOT Hardware

✓ Lesson 01: Explanation

Module 17: SDR (software defined radio)

✓ Lesson 01: Explanation with practical

Module 18: Conceiving a new IOT product- Product Requirement document for IoT

✓ Lesson 01: Explanation

Module 19: Basic Intro Cloud laas Paas Saas-loT data, platform and software as a service revenue

✓ Lesson 01: Explanation

Module 20: Basic Introduction of ICS

✓ Lesson 01: Explanation

About us:

Craw Security is India's leading cybersecurity training institute, dedicated to developing the next generation of cybersecurity professionals. With a focus on practical, hands-on training, we offer a wide range of courses tailored to all skill levels. Our mission is to enhance the cybersecurity posture of individuals and organizations worldwide.

For more information, please visit our course page website: https://www.craw.in/learn-internet-of-things-iot-pentesting-course-in-delhi/

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