

## Data Analysis and Penetration Skills

### COURSE OVERVIEW

This skills course is designed to equip participants with a dual set of capabilities; analyzing data effectively and applying ethical hacking techniques to identify vulnerabilities. The course covers foundational concepts in data analytics, such as data collection, exploration, and visualization, alongside essential penetration testing skills including network scanning, vulnerability assessment, and exploitation methods. Participants will learn how to interpret data to detect unusual behavior, support security investigations, and strengthen systems against cyber threats.

### WHO SHOULD ATTEND?

This course is ideal for cybersecurity analysts, ethical hackers, IT security professionals, data analysts, and system administrators seeking to strengthen their ability to detect and prevent cyber threats. It also benefits individuals pursuing careers in cybersecurity or forensic analysis by equipping them with a blend of data-driven decision-making and hands-on penetration testing skills. Professionals who are looking to understand both the analytical and offensive aspects of cybersecurity will gain practical, in-demand expertise from this course.

### COURSE OUTCOMES

Delegates will gain the skills and knowledge to:

- Understand the fundamentals of data analysis and its role in cybersecurity.
- Collect, clean, and interpret security-related data to identify patterns and anomalies.
- Use data visualization tools to support incident response and threat detection.
- Perform network scanning, enumeration, and vulnerability assessments.
- Apply ethical hacking techniques to test the security of systems and networks.
- Use penetration testing tools (e.g., Nmap, Metasploit, Wireshark) effectively.
- Analyze results from security assessments to recommend mitigation strategies.
- Combine analytical insights with penetration testing findings to strengthen defenses.
- Understand the legal and ethical considerations of penetration testing and data handling.
- Prepare for entry-level certifications in cybersecurity and ethical hacking (e.g., CEH, Security+).

### KEY COURSE HIGHLIGHTS

At the end of the course, you will understand;

- Data collection, exploration, and visualization techniques.
- Ethical hacking and penetration testing fundamentals.
- Network scanning and vulnerability assessment.
- Exploitation methods for identifying system weaknesses.
- Using data analysis to detect threats and support investigations.
- Strengthening system security through analytical insights.

All our courses are dual-certificate courses. At the end of the training, the delegates will receive two certificates.

1. A GTC end-of-course certificate
2. Continuing Professional Development (CPD) Certificate of completion with earned credits awarded