

Course Description

This course is a two day class run on your site or at a public venue or can be arranged to be taught on-line. This class teaches the delegates how to secure all of the data stored in Oracle databases in their organisation. "The vehicle" of a detailed and focused security audit of an Oracle database is used to walk the students through the complete cradle to grave process of securing and understanding the security of data.

The class starts by getting everyone up to speed on the key issues that affect security in an Oracle database and showing how data is leaked by the database software itself and also how design and implementation decisions made by you also affect the security of your data. We also look at common ways people abuse a database by hacking or simply unauthorised actions to access data that they should not.

We will walk through a complete detailed audit of an Oracle database covering all phases of the audit and also highlighting as we progress how to solve issues that are located.

The class also includes planning for an audit, which tools to use, what to do after the audit and how to formulate a detailed report but also importantly an action plan of what to do after the audit.

Course Goals

The aim of the course is for the students to get an appreciation of how to perform a detailed security audit of an Oracle database whilst also appreciating possible solutions, the risks to their data and how to ensure that all of the data in the organisation is secured where that data is processed and used from Oracle databases.

The students will learn:

- How data is stolen and stored weakly
- How to assess a database for security risks
- How to plan and complete an audit
- How to develop and create a data security policy
- This class will allow you to focus your efforts on securing the right data using the right solutions

Course Duration

The class is two Days each from 9am to 5pm and is instructor lead with over 50 detailed demonstrations.

Course Location

The course can be held at your site or students can attend a public class. No public classes are scheduled at present. Details of on-site requirements are provided during the booking process

Course Pre-Requisites

The delegates should have a good working knowledge of the Oracle database including SQL but if not we bring all students to a basic understanding of the database architecture to appreciate the security aspects of data in an Oracle database

The class is intended for DBA's, security personnel, developers and managers who are responsible for the upkeep, development and deployment of data in Oracle databases

Course Material

The student will receive a URL to download a zip file that includes:

- ✚ The course notes as PDF files
- ✚ Free PL/SQL tools and scripts
- ✚ All of the examples used as SQL and PL/SQL scripts

Course Outline

The course outline is as follows

- ✚ Background to key database files, structures, configurations and files relative to security
- ✚ Oracle security tools, checklists and more
- ✚ Why audit an Oracle database
- ✚ Exploiting Oracle, SQL Injection, configuration, escalation of privilege and more
- ✚ Planning an audit
- ✚ Setting up for an audit, gathering tools, prepping laptop, people, access
- ✚ Starting the audit
- ✚ Software installed, versions and attack surface
- ✚ Enumerating users, password strength and more
- ✚ Assessing users, privileges and RBAC
- ✚ Auditing the Oracle database association with the file system
- ✚ Audit Oracle networking
- ✚ Audit the database configuration
- ✚ Specialist considerations, Credit cards, personally identifiable data and more
- ✚ Review the audit trail
- ✚ Data analysis, vulnerability assessment
- ✚ Document findings, develop a policy and deciding what to fix
- ✚ A look at some of the automated tools

This course is fast paced and very interesting and is delivered by one of the most well known experts in database security. Pete Finnigan created the SANS Oracle security step-by-step guide and the CIS Oracle benchmark used by NIST, USA DoD and more is a reference to secure Oracle databases. Pete worked out the mechanisms that Oracle used to protect PL/SQL and showed how they can be easily defeated at the Black Hat conference in Las Vegas in 2006. Pete has published multiple books on databases security and speaks and publishes papers regularly. His company also produces the tool PFCLObfuscate used to protect IPR in PL/SQL.