

# SQL Server 2012, Part 5 of 9: Security Basics

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**Meet the expert:** Don Kiely is a featured instructor on many of our SQL Server and Visual Studio courses. He is a nationally recognized author, instructor, and consultant specializing in Microsoft technologies. Don has many years of teaching experience, is the author or co-author of several programming books, and has spoken at many industry conferences and user groups. In addition, Don is a consultant for a variety of companies that develop distributed applications for public and private organizations.

**Prerequisites:** The users should have a working knowledge of the Microsoft OS and Server environment but does not require any prior experience with Microsoft SQL Server or with database programming.

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**Course description:** The SQL Server 2012: Security Basics course will show you the basics of SQL Server security by giving you an understanding of potential data threats and how SQL Servers design protects against them. You will then learn about SQL Server and Windows integrated authentication. Then see how SQL Server provides an authorization system to control access to data and objects.

## Course outline:

### Introduction

- Introduction
- Security Overview
- The Threats
- Security Design Philosophy
- The Two Stages of Security
- Key SQL Server Security Terms
- Summary

### Authentication

- Introduction
- Authentication
- Integrated Authentication
- Security Settings
- Demo: Server Authentication
- Demo: Setting Validation
- Demo: Adding a User As a Login
- Demo: Assigning Permissions
- Demo: Adding Users Via Script
- Summary

### SQL Server Authentication

- Introduction
- Demo: Create SQL Login
- Windows and SQL Server Logins
- Beware of the sa Login
- Password Policy & Enforcement
- Demo: Account Policies
- Demo: Login Properties
- Summary

### Contained Databases

- Introduction
- Database Authentication

- Demo: How to Enable Contained Databases
- Demo: Change Authorization
- Contained DB Authentication
- Summary

### Authorization

- Introduction
- Authorization
- Principals
- Fixed Server Roles
- Demo: Assigning a Login
- User-Defined Server Roles
- Demo: Create a New Server Role
- Fixed Database Roles
- Demo: Add a Back-up Operator
- The Public Role
- The dbo (Database Owner) Role
- User-Defined Database Roles
- Demo: Create a Database Role
- Securable Objects
- Summary