

# Database DevOps: Why, What and How

Detailed course overview and pricing

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## Course overview

Over the course of two days, Microsoft MVP and Database DevOps expert, Alex Yates, will coach your team on DevOps principles, effective database development and deployment processes and instruct each team member to build their own end-to-end deployment pipeline using a VM we host and their own (free) Azure DevOps Services accounts with either Redgate or SSDT.

The goal is to give your team a shared understanding and vision for how to effectively deliver database updates regularly and reliably, backed up with the required skills based on real experience. This is a class for both developers and DBAs with a special focus on collaboration between folks with different roles and personal objectives.

### Day 1

What is DevOps and why is it important?

Before learning how to build a pipeline, it's important to understand the reasons why the exercise is important, how it relates to broader DevOps goals and, ultimately, how it helps your organisation to succeed.

Provisioning databases: Shared dev servers vs dedicated databases

We'll examine the pros, cons and challenges associated with these different ways of working and discuss solutions to those problems.

Database source control basics: Model vs Migrations and tool selection

Before jumping into one solution for database source control for our proof of concept, we'll examine the two fundamental approaches to database source control to ensure we understand the pros and cons of each, as well as the main tooling options that are available. This exercise is designed to ensure that we understand the trade-offs and the benefits and issues associated with each choice. This validates that our strategy and tooling choices are appropriate.

Source Controlling a database using Redgate SQL Source Control/SSDT, Azure DevOps Services and Git

Attendees will log onto their VMs and add a development database to source control in a Git repo hosted in Azure DevOps Services. Then they will perform some of the fundamental source control operations such as committing changes to source control, undoing changes, managing static data and dealing with conflicts.

Complex Migrations

One of the challenges of the model driven source control approach is managing complex migrations. We'll look at the various features available to us for handling these scenarios and their pros and cons. Attendees will work through a lab to implement a solution.

Branching and Merging

In the public course we will discuss the principle of branching and merging and work through a basic branching and merging lab. In a private class, if your team follows a specific branching strategy, we can tailor this section to match your branching strategy.

## Day 2

### Understanding the difference between Continuous Integration, Continuous Delivery and Continuous Deployment

We'll start the day by unpicking the jargon to make sure everyone on the call has a clear and shared understanding of what these phrases mean in practice. We'll also ensure that your team has a shared vision for your objectives.

### Testing databases with tSQLt

Database release automation should go hand in hand with database test automation, otherwise you are simply deploying bugs to production more quickly than before. Unfortunately, automated database unit testing is often overlooked.

We'll take an hour or so to ensure all attendees understand the importance of automated testing and are able to install tSQLt and write a basic unit test. If you are interested in learning more about tSQLt and unit testing, consider extending your 2-day class to a 3-day class including a full day of testing with significantly more detail and hands-on testing experience.

### Building and deploying databases with Redgate/SSDT

This section is a practical section where the details will vary depending on whether you are taking the Redgate or SSDT version of this class.

### Setting up a local Azure DevOps Services Build Agent

Including more detailed information on the architecture of Azure DevOps services. What you need to install, where you need to install it, how to configure it.

### Configuring database releases with Azure DevOps Services and Redgate/SSDT

This section is a practical section where the details will vary depending on whether you are taking the Redgate or SSDT version of this class.

### Open discussion

We will leave the last 30 to 60 minutes of the agenda clear. This will either give us a buffer in case the class is running over or it will give us an opportunity to discuss bigger questions that have been raised over the course of the two day class.

### Suggested possible extensions for private courses:

- Full day on testing with tSQLt
- Run the class using alternative tooling (e.g. GitHub, Octopus Deploy, TeamCity, Jenkins etc)
- Base the exercises on a particular release/branching process or technical challenge etc

## Reviews

The Redgate and SSDT versions of this class have been reviewed eleven times on [brentozar.com](https://www.brentozar.com), and received eleven five-star reviews, including the following:



★★★★★

*"Alex's know-how was more than evident and his passionate and humorous delivery made for two very useful, interesting and fun days. The combination with excellent practical assignments truly made me feel ready to start implementing the DevOps culture and practices within my job."*

**Nick de Korte, MSBI Consultant at Hot ITeM**



★★★★★

*"Alex's knowledge and experience is exemplary. His workshop delivery is both enjoyable and educational; an engaging mix of presentation and hands on participation, as you work through the steps on a VM under his patient tutorage. I met all my objectives and more, confidently reprising the exercises on my native systems over subsequent days. I have no hesitation in recommending this class."*

**Rae Ellingham, Senior Developer at Car Care Plan**



★★★★★

*"Got all I wanted from this training and so much more. Alex is an excellent teacher and explained all the processes very clearly. If you want to know about Database DevOps, Alex is the man to listen to."*

**Nick Withey, Founder/Owner at Zapcon**



★★★★★

*"Alex was a great trainer for this very involved, 2-day dive into DevOps. The exercises allowed us to get familiar with all the aspects of source control, CI and CD. Discussions were lively in the Slack channel and I learned quite a bit about building out a source control/delivery process for my db group."*

**Craig Iannazzi, Developer at FrontEdge**



★★★★★

*"Great course! Alex takes you along the various aspects of the new approach to Database development. Covering the why to the how, this course enables you to build a solution including the cultural change you (and your organisation) has to go through. I would highly recommend this course to both DBA's and developers."*

**Koen Ubbink, Data Engineer at Hot ITeM**



★★★★★

*"As a self-employed BI professional in small projects, I tend to figure it out all by myself. I used this course to assert my own build, integrate and deploy solution. Alex Yates is a great teacher and he inspired me to adapt to best practices."*

**Frans van der Geer, Self-employed Microsoft Data Platform Consultant**

## Pricing

### Public courses

We run public classes over GoToMeeting. These classes can be accessed from your home or office and may provide an opportunity to network with professionals from other companies who are tackling similar problems.

For individuals this may be the most cost-effective way to access this training classes. You can see our current public schedule and pricing on our website:

[www.dlmconsultants.com/dlm-workshops](http://www.dlmconsultants.com/dlm-workshops)

### Private courses:

#### Remote

Your team can gather in a meeting room with a projector and loudspeaker or from their own machines. If connecting from their own machines, we recommend ensuring each has at least two monitors – one for the webcast and one for the exercises or chat window etc. If connecting from a meeting room, we recommend each attendee brings a laptop to complete the labs.

#### Price:

- £1,995 per day of training (up to 5 people)
- £50 per day per additional person
- £1,195 per day for additional prep time  
*(Only if any changes are requested from the standard content)*

#### On-site

With training, nothing beats the face to face experience. However, for us to deliver on-site classes involves significantly more planning, disruption and expense.

#### Price:

- £2,495 per day of training (up to 5 people)
- £50 per day per additional person
- £1,195 per day for additional remote prep time  
*(Only if any changes are requested from the standard content)*
- £750 per travel day
- Expenses (a fixed price for expenses will be quoted based on requirements)

All prices are exclusive of VAT.

## Contact

For our full list of scheduled Database DevOps classes:

**DLM Workshops**

[www.dlmconsultants.com/dlm-workshops](http://www.dlmconsultants.com/dlm-workshops)

To contact the presenter for further assistance or training/consulting requirements:

**Alex Yates**

[alex.yates@dlmconsultants.com](mailto:alex.yates@dlmconsultants.com)

[www.dlmconsultants.com](http://www.dlmconsultants.com)

