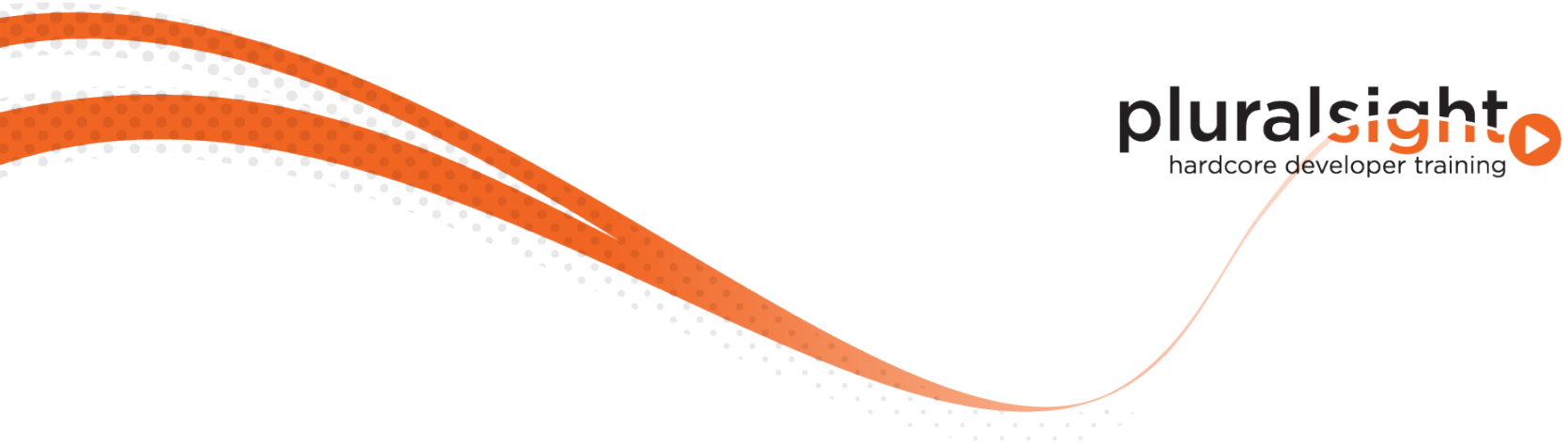
SQL Server: Benchmarking and Baselining

Module 1: Introduction

Erin Stellato
Erin@SQLskills.com



pluralsight
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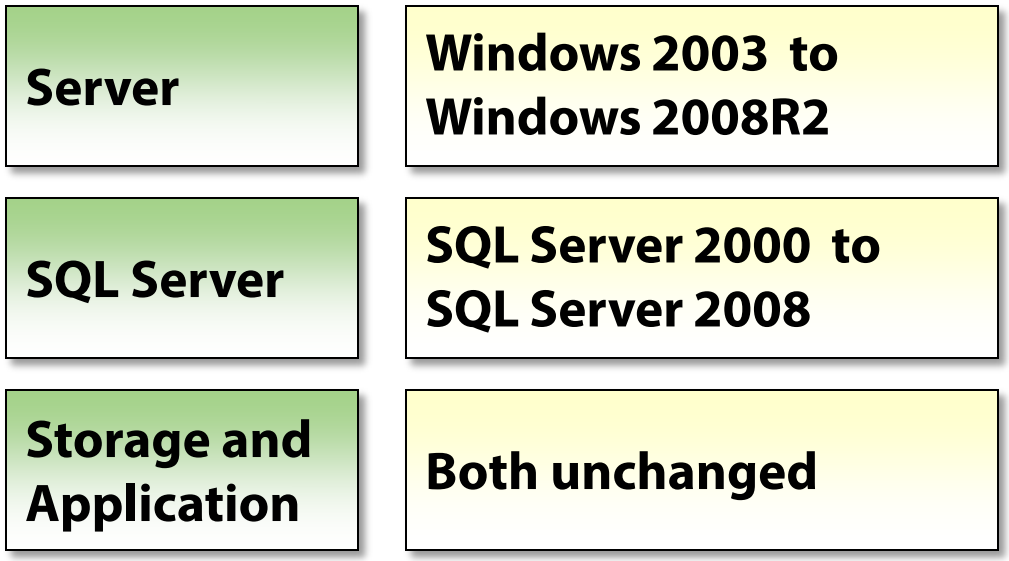
Introduction

- **Where do you begin troubleshooting when there is a problem?**
  - How do you know there is problem?
  - What changed in the environment?



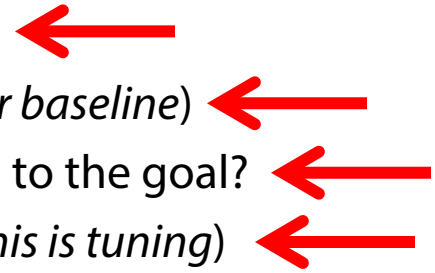
- **This course is applicable to all versions of SQL Server from 2005 onwards**

What is a Baseline?

- **Often represents the "normal" or typical state of the environment**
- **But it really is a point of reference from which change can be measured**
- **Not a point in time**
  - Data is captured over time and averaged
- **You should have multiple baselines**
  - e.g. business hours, end of month, peak

What is a Benchmark?

- **A benchmark is a comparison against a baseline**
- **Benchmarks are utilized to target or reach a specific goal**
  - Define a goal (*this is your benchmark*)
  - Measure the current value (*this is your baseline*)
  - How does the current value compare to the goal?
  - Improve the current value in steps (*this is tuning*)
  - Measure the value again



Why Are They Important?

- **Understand where the system is today**
  - Can help determine where you want to go
- **Troubleshooting is easier**
- **Proactively tune the environment**
- **Determine usage patterns and trending**
- **Starting point for growth and capacity planning**
- **Used to measure the effects of changes**
  - Hardware
  - Software version
  - Application code

Who Needs to Capture This Information?

- DBAs
- Developers
- Application Administrators
- Server Administrators
- Storage Administrators
- Network Administrators
- *But only the DBA is going to do it for SQL Server in production…*

Course Structure

- Module 2: What, When, and Where
- Module 3: Performance Monitor
- Module 4: Capturing Queries
- Module 5: Using DMVs
- Module 6: Pulling It All Together