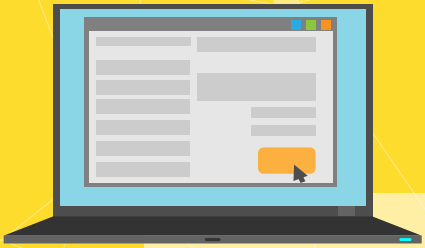
Spotlight®

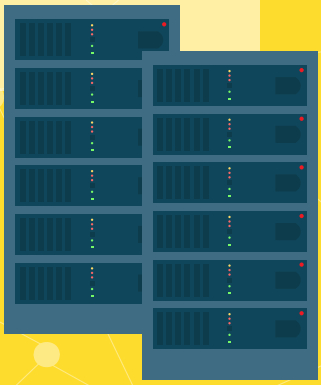
The Definitive Checklist for New DBAs

Table of Contents

Introduction	3
Start Here: The First Things a New DBA Needs to Tackle	4
Performance Tips: How to Maintain Availability and Continuity	5
Wake-Up Call: Addressing Emergencies	7
Tips for Success	9



Database administration is essential to protecting, monitoring, and maintaining the backbone of your organization. It's a big, complex, challenging job, and whether you came to the DBA role willingly or accidentally, you're going to need a game plan. This checklist for new DBAs provides an at-a-glance resource for taming the chaos and creating a strategy to excel in your new role.



Start Here:
The First Things a New DBA Needs to Tackle

- ❒ **Assess the mess**
  Before you can start fixing problems, you have to identify the problems first. Finding the source of blocks and handling availability issues are smart first steps toward reaching the goal of proactively preventing issues before they occur rather than being in a constant state of firefighting.

- ❒ **Set up alerts**
  Do yourself a favor and put a good monitoring tool in place. Use tuning and diagnostics to help prevent downtime and failures instead of constantly having to jump into response mode to put out fires.

- ❒ **Reduce the noise**
  Once you have a handle on things, take the time to configure alerts and customize responses. If you know an event often triggers a false positive, turn off the alarm. Cutting down on the noise will help you isolate and focus on fixing real issues.

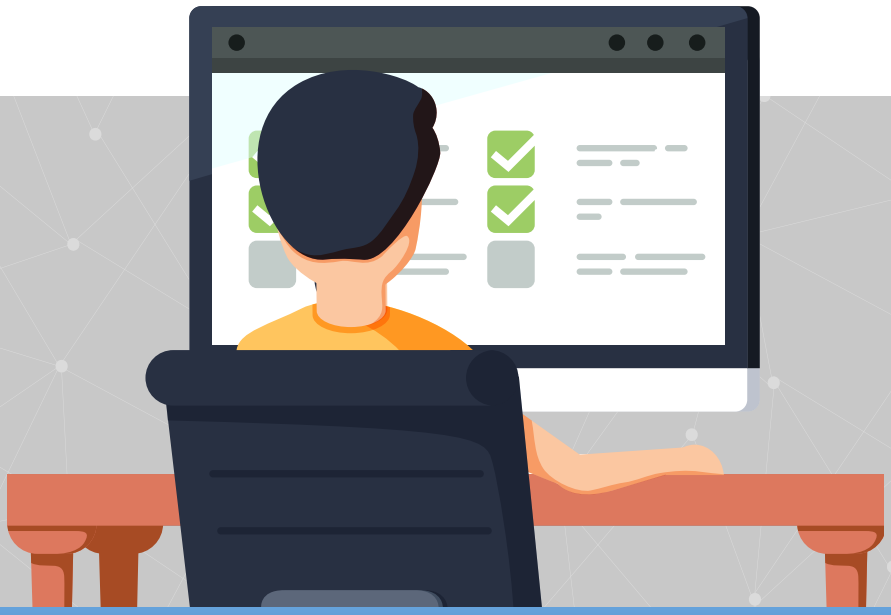
- ❒ **Know who to ask for help**
  You don't have to do this alone. Find someone in-house who is familiar with the database and ask them questions. Most tool vendors offer technical support, so if you get stuck, open a ticket and find a solution.

Performance Tips:
How to Maintain Availability and Continuity

- ❒ **Monitor system performance continuously**
  Catching issues early is key to preventing or minimizing performance problems. Creating daily, weekly, monthly, and quarterly checklists is an effective way to ensure you are paying close attention to alerts, event logs, security policy violations, and wait statistics. Adhering to your checklist schedule will also help you stay current on system maintenance and tuning opportunities.

- ❒ **Define and enforce a change management process**
  As a DBA, you are the guardian of the databases, and any changes should go through you. Establishing a change management process that includes pre- and post-change monitoring, setting targets, and thorough documentation of all changes is crucial to establishing an efficient, low-stress process.

- ❒ **Back up early and often**
  Periodically restore your backup in a test environment to be sure it will work if you need it. Store backups off-site to mitigate risk from natural disasters or other potentially damaging events.



❒ Secure your servers

Securing servers from internal and external threats is an important part of the DBA's job. Some ways to keep your data safe from accidental or malicious security breaches include:

- Limit the number of sysadmins
- Give users the least amount of permissions needed to do their jobs
- Enable login auditing
- Place SQL Servers behind a firewall
- Encrypt SQL Server backups

❒ Be ready with a rollback plan

Common sense and diligence will go a long way toward keeping your servers secure and performing well. But in the event something goes very wrong, be prepared with a well-documented rollback plan. Be sure to test the rollback plan periodically to ensure it works as it should.

> But in the event something goes very wrong, be prepared with a well-documented rollback plan. Be sure to test the rollback plan periodically to ensure it works as it should.

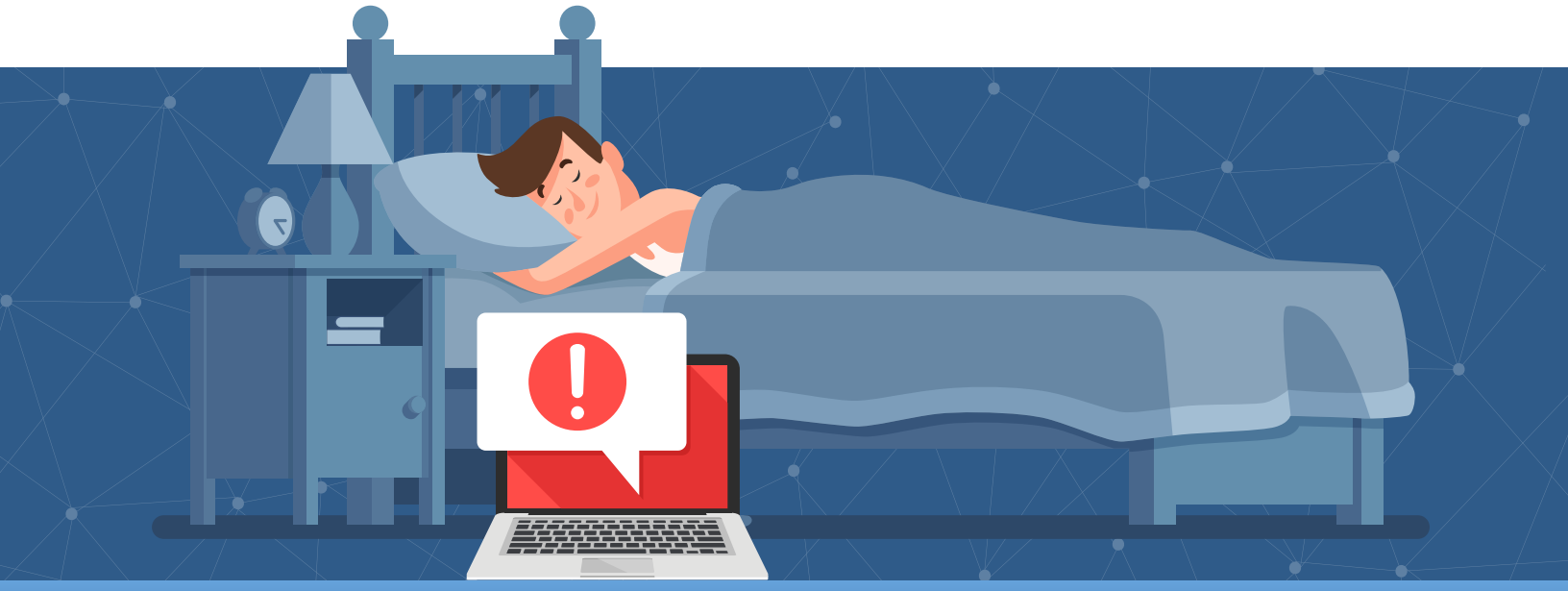
Wake-Up Call:
Addressing Emergencies

- ❒ **Error logging**

  Being notified instantly of potential issues is better than stumbling across them during your morning error log review. Understanding SQL Server notifications and their severity levels will help you set up notifications for the most important types of problems. Alerts with a severity of 16 or below are those that deal with noncritical user errors, such as syntax errors. Though important, these events don't really affect SQL Server health. Severity levels 17-25 are the ones you absolutely must set up alerts for because they indicate potentially critical resource, integrity, or hardware issues.

- ❒ **Responding to SQL Server events**

  No one loves a 3 a.m. wake-up call. Knowing the differences between the types of alerts will help you decide whether a midnight trip to the office is needed. SQL Server event alerts are triggered in response to one or more events involving specific parameters: error number, severity level, database, and event text. SQL performance event alerts let you know when specified performance metrics exceed the expected range. Early notification means you can correct the issue before too many users are affected.



❒ Pinpoint the source of the performance issue

Minimizing downtime and other performance killers should be top of mind when things go south. The ability to quickly isolate workloads to find the source of the problem and alleviate the symptoms should be a consideration in your monitoring tool selection.

❒ Identify the root cause

Preventing recurrence of issues is a top priority for new DBAs. To find the root cause of a performance issue quickly, select a tool that allows you to dissect workloads across a range of dimensions, visualize TempDB usage, and analyze the query plan.

❒ Use a mobile app

Many DBAs struggle with work-life balance because they must respond to issues around the clock. Fortunately, there are apps available that allow you to monitor your SQL connections from your mobile device. Heatmaps, alarm details, and other diagnostic and issue resolution tools let you begin triage from anywhere at any time.

❒ Disaster recovery plan

Hopefully, you will never need to use it, but having a disaster recovery plan in place is imperative. Write the recovery plan in plain language that anyone can understand and follow. You never know who will be around when the plan needs to be activated. Be sure to test your recovery plan at least annually and update it with any changes.

Tips for Success

- ❒ **Focus your effort where it has the most impact**
  In the early days of your new DBA role, take a deep breath and assess what you can do in the short term that will help you start to stabilize the environment. Maybe it's cutting down on the noise so you can begin to proactively address issues or introducing a monitoring tool so you can pinpoint, analyze, and systematically deal with problems. Your initial goal is to calm the chaos and take control of the environment so you can begin to make strategic decisions.

- ❒ **Don't get distracted**
  Bells and whistles are not your friends at this stage. Choose intuitive tools that are easy to adopt and easy to maintain. Taking on a poorly managed environment is stressful enough without having to sit through hours of training before you can start to implement solutions.

- ❒ **Create, document, and test your backup and restore processes**
  Things are likely to be a bit rough at first, so give yourself the peace of mind that if you mess something up, you will be able to fix it. Take the time to create, document, and fully test your backup and restore plans. They aren't helpful if they don't work or if no one knows what to do.

> Your initial goal is to calm the chaos and take control of the environment so you can begin to make strategic decisions.

❒ Develop your soft skills

The DBA wears many hats and must interact with a wide variety of people, including developers, managers, customers, and colleagues. Being a clear and concise communicator is a valuable skill. Also, if you don't want to have to do all the work yourself, being an effective teacher and mentor will allow you to train a backup person on your team to share DBA responsibilities during busy times.

❒ Keep learning

Database administration is complicated, stressful, and critical to your organization. You may not have chosen this career path directly, but here you are. Choosing to learn, grow, and excel in the role will improve your professional satisfaction. Attending conferences, joining an SQL Server group, participating in SQL Server forums, and getting a DBA certification are all ways to maximize your knowledge and position yourself as an expert within your organization.

Spotlight®

Start Your Free Trial

www.spotlightcloud.io

sales@spotlightcloud.io
+1-949-754-8190

©2019 Quest Software Inc. ALL RIGHTS RESERVED