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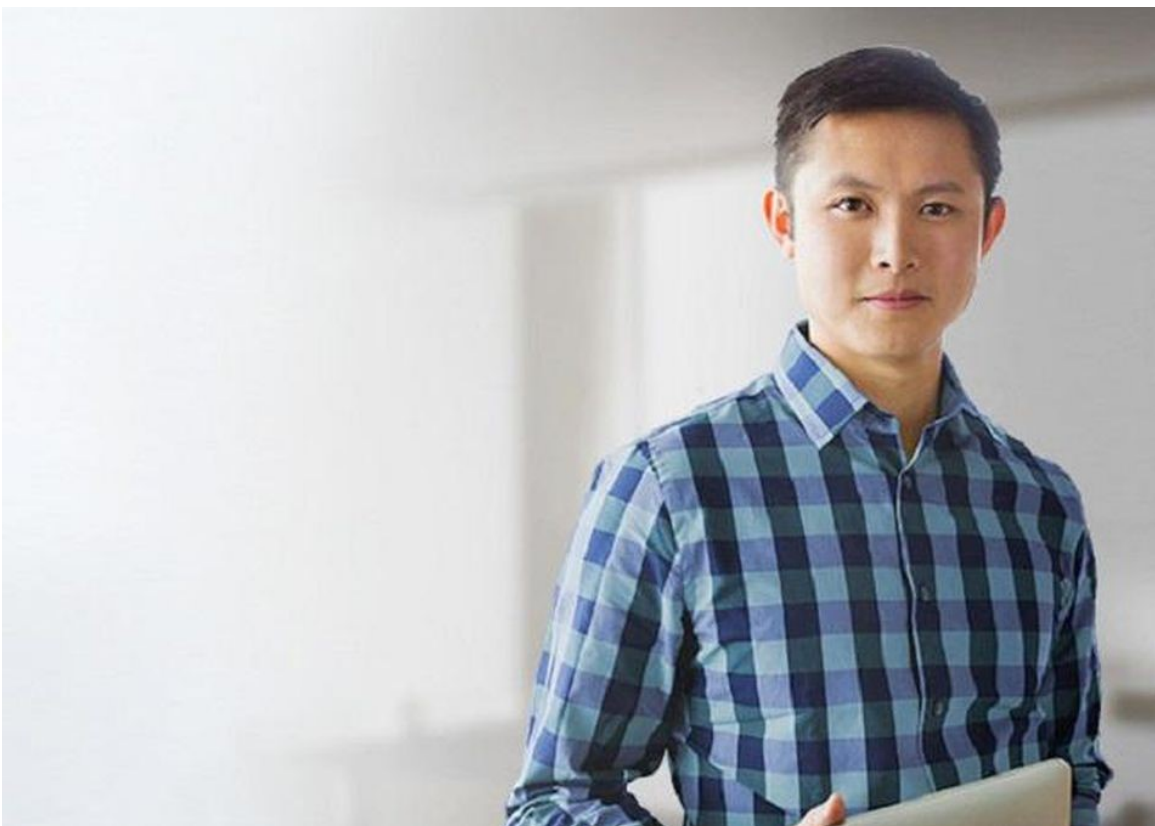
3 Essential DBA Career Priorities For 2018

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Oracle BRANDVOICE

Many database administrators (DBAs) will go into 2018 wondering if "self-driving" databases will weaken their career prospects. More likely, 2018 will be a year that database technology leaps forward and these valuable data experts take on other, more important responsibilities.

"History is repeating itself," says longtime DBA Dan Morgan, founder of Morgan's Library and principal adviser at tech firm Meta7. Morgan has seen the DBA role evolve amid a long series of technical advances in storage, management, and performance. And each advance asked DBAs to adjust the way they work.

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"At first we say, 'Wait, I've become really good at what I currently do—let's hold off on this change,'" Morgan says. But DBAs eventually see that the advance helps them do their job better. "I don't know anyone who would say they want to go back and stop using [Oracle Database advances such as] Automated Storage Management or Enterprise Manager or Exadata."

The same will be true for the soon-to-be-released Oracle Autonomous Database, Morgan says, which, will automatically and continuously patch, tune, back up, and upgrade itself without manual intervention, all while the system is running. However, it will force DBAs to think about the (considerable) business value they can provide beyond those routine activities.

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"We DBAs will need to step back from our keyboard and look at the business from the view of the CFO or the CTO or our other internal customers, and see how else our database expertise can help the business," Morgan says.

To that end, here are three of the top strategic priorities for database administrators in 2018:

1**. Learn What Cloud Database Services Have to Offer**

The cloud lets companies tap into new technology changes faster, since it doesn't require a lengthy upgrade to add new features. DBAs can be the trailblazers guiding their companies to those new opportunities.

"An obvious benefit of using a database cloud service is that it puts you on the latest version of the software," says Maria Colgan, a master product manager in Oracle's database development group. "Take steps to learn what the newest releases can do."

Sign up for one of the smaller database services, Colgan suggests, such as Exadata Express Cloud Service, which runs on Oracle Database 12.2 on Oracle Exadata. "Not everybody has an engineered system like Exadata in their own business," she says, "but that's what they're going to get when they come to the cloud, and they need to become familiar with the benefit you get from running in this configuration."

For example, learn use cases that weren't possible on older versions of the database. "Show how your company can take advantage of Oracle Database In-

Memory to bring real-time analytics to inventory decisions," or learn how multitenant databases are patched en masse for improved security, she advises. "Start using cloud databases and find out what they can do."

Getting results faster is another vital reason to broaden your understanding of cloud services, says longtime database developer Martin D'Souza. If you're working at the slower on-premises software pace, your business users or developers might use the cloud to go around you.

D'Souza saw this scenario first hand-on a recent project. "We couldn't get the DBAs to move fast enough to support our project because they were just too busy with other stuff," he recalls. "So we dialed up a cloud service and moved the project along. Eventually, the DBAs caught up with us, but even if they hadn't we had a working project without them."

D'Souza's advice is to turn that dynamic on its head. "Be the one who knows what the cloud has to offer," he says. "Your company could be thinking that an IT project will take months and tons of money, but you've done your homework and found a cloud service that will do the job for like five bucks a week. You can be seen as the person who saves time and money."

2. Teach Developers What Database Can Do for Them

With the growing move to a DevOps style of software development, Colgan sees the roles of the DBA and the application developer moving closer together. "Instead of the development group asking for a database and then going away, you see them work together to solve the problem," she says. This is an opportunity for DBAs to earn cred as the expert of their platform, showing developers where they can be more agile using the features and functions in the database.

"Just because I'm an excellent Java developer or Node.js developer doesn't mean I'm very good at writing SQL," Colgan says. And with the power of SQL within the database, developers can probably do things a lot more efficiently than if they try writing these functions themselves from scratch. "DBAs should ask developers what they are trying to accomplish and offer suggestions on what database features or functionality they should take advantage of rather than dragging all of the data out of the database and doing things like analytics in the application code," she says.

Colgan offers another example. Developers might be fond of storing everything in JSON, she says. But they don't know that they can store JSON in Oracle Database and then join that new data with existing relational data. "Show them that you don't have to drag the data from different sources into the application," she says.

If a DBA learns to listen to developers, he or she can "evolve from somebody who stands up or patches or backs up a database to somebody who's doing this front-end application-style tuning along with the developers," Colgan says.

Oracle Database and SQL users have another weapon in the cloud, says Francis Mignault, CTO at Insum Solutions. Oracle APEX, which is available free in all Oracle Database Cloud Services, "is great for helping people who are delivering new data-first services or new applications," he says. "We can do web services, APIs, exports, nice graphs, integration of Oracle JET. ORDS [Oracle REST Data Services] is integrated in there, too."

3. Make Your Company's Data Work in Emerging Technologies

Businesses are finally ready to bring long-running, core business applications to the cloud, which means moving the database to the cloud as well. This migration, says Ross Smith, a chief architect at system integrator Pitss America, provides a big opportunity for DBAs who know how to navigate the change.

"The legacy systems that our companies want to modernize are often crucial, so our job as the data experts is to help the company express what those legacy systems do in a new technology that's forward-looking," Smith says. His advice: Break down the functions of the application and advise the organization on new technologies, like NoSQL, or database services that preserve the functionality but offer the benefits of the cloud.

The Internet of Things (IoT) also opens opportunities for DBAs who can master the art of tuning for streaming data. With IoT, "we've got data that is very high velocity and volume," says Jerry Ward, a database developer for Viscocity, a technology consulting firm. "Being able to process code for streams and not batch jobs, eliminating hot points on specific databases in your infrastructure, federating that out throughout the cloud worldwide. Those are all in the realm of the DBA."

DBAs also have most of the skills they'll need to enable chatbot functionality, like

connecting back-office information to voice assistants. It's the type of service that John Dixon, a tech lead at cloud migration firm JMJ Cloud, thinks is going to catch on fast with the C-suite.

"Voice assistants and Oracle Database are a real natural marriage," Dixon says. "Exadata Cloud Service has a fantastic tool in ORDS that exposes REST services, which is what voice assistants need to execute the engine behind a request. Because DBAs have the knowledge on the database side, it's a relatively easy process for them to learn the rest."

Last but not least, learn about Oracle's Autonomous Database Cloud. How will it change what you do? And how will it use machine learning to help lower costs and, more important, improve data security? As Dan Morgan of Morgan's Library puts it: "It's time for DBAs to stop fighting robots with their fingers and losing," he says. "It's time to start using intelligence and winning."

Jeff Erickson is editor-at-large for Oracle.

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