

Database Administrators and Architects

SOC: 15-1242 • Career Profile Report

■ Key Facts

\$123,100 Median Salary	144,900 Employment	+4.0% Growth Rate
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■ Requirements & Salary Range

Education: Bachelor's degree

■ Automation Risk Assessment

Low Risk - 14.0% probability of being automated in the next 10-20 years.
This job is relatively safe from automation due to its creative, social, or complex problem-solving requirements.

■ Work-Life Balance

9.8/10 - Excellent work-life balance

■ Personality Fit (RIASEC)

Higher scores indicate better personality fit for this career type.

Realistic	7.4/10	Investigative	9.2/10
Artistic	4.6/10	Social	5.4/10
Enterprising	5.6/10	Conventional	6.8/10

■ Top Skills Required

Analytical skills, Communication skills, Detail oriented, Problem-solving skills

✓ Strengths

- High Demand
- Flexible Work
- Continuous Learning

■ Challenges

- Burnout Risk
- Rapid Technological Change

■ What They Do

Database Administrators and Architects are data infrastructure professionals who design, manage, and secure **databases that store, organize, and deliver critical information** for organizations. They ensure data is reliable, accessible, and protected, supporting applications ranging from business operations and analytics to healthcare systems and financial platforms. While database administrators focus on maintenance and performance, database architects design the underlying structure that enables scalable, efficient data use.

This career is well suited for individuals who enjoy data systems, problem-solving, and ensuring that information flows smoothly and securely across an organization.

What Do Database Administrators and Architects Do?

These professionals plan, build, and maintain database environments that support daily operations and long-term growth. Their responsibilities combine technical expertise with strategic planning.

Common responsibilities include:

- Designing database structures and data models
- Installing, configuring, and upgrading database systems
- Monitoring database performance and optimizing queries
- Managing data backups, recovery, and disaster planning
- Ensuring data security, access controls, and compliance
- Troubleshooting database issues and failures
- Collaborating with developers, analysts, and IT teams

Differences Between the Roles

Although closely related, the two roles emphasize different responsibilities:

- Database Administrators (DBAs): Focus on daily operation, performance tuning, security, and maintenance.
- Database Architects: Design database structures, schemas, and long-term data strategies.

Skills and Abilities Needed

Database professionals combine technical depth with analytical thinking.

Core Professional Skills

Personal Qualities That Matter

Education and Career Pathway

Most database administrators and architects enter the field through formal education and progressive experience:

- Bachelor's Degree: In computer science, information systems, or a related field
- Entry-Level IT or Database Roles: Building experience with data systems
- Advanced Technical Skills: Specialization in specific database platforms
- Professional Certifications (optional): Vendor or cloud database credentials
- Ongoing Learning: Staying current with database technologies and security practices

Where Do Database Administrators and Architects Work?

These professionals are employed across nearly every industry:

- Technology and Software Companies
- Financial Services and FinTech Firms
- Healthcare and Research Organizations
- E-Commerce and Retail Companies

- Government and Public Sector Agencies
- Cloud Service Providers and Data Centers

Many roles offer remote or hybrid work options.

How Much Do Database Administrators and Architects Earn?

Earnings vary based on role, experience, and technology stack:

- Database Administrators: Typically earn strong professional salaries due to system responsibility
- Database Architects: Often earn higher pay due to design and strategic impact
- Specialized or Cloud-Focused Professionals: May earn more with in-demand expertise

Compensation depends on industry, location, and system complexity.

Is This Career Difficult?

Database management is technically demanding and responsibility-heavy. Errors can lead to data loss, downtime, or security risks. The challenge lies in maintaining performance, security, and availability while supporting evolving business needs.

Who Should Consider Becoming a Database Administrator or Architect?

This career may be a strong fit if you:

- Enjoy working with data systems and infrastructure
- Like solving complex technical problems
- Are detail-oriented and security-conscious
- Want a role critical to business operations
- Prefer behind-the-scenes technical responsibility

How to Prepare Early

- Learn SQL and relational database fundamentals
- Practice data modeling and normalization
- Study operating systems, networking, and security basics
- Experiment with cloud and open-source databases
- Seek internships or junior roles in IT or data teams

Database administrators and architects safeguard and shape the data foundations of modern organizations, ensuring information is secure, reliable, and ready to power decisions and applications at scale.

*Generated by StartRight • Data from U.S. Bureau of Labor Statistics & O*NET*

Source: <https://www.bls.gov/ooh/computer-and-information-technology/database-administrators.htm>