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programmer analyst – fall 2023 FINAL EXAM

**Ícone

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**Summary**

[1. Data Base Administrator (DBA) 2](#_Toc153845789)

[2. Networking Administrator 3](#_Toc153845790)

[3. Web Developer 3](#_Toc153845791)

**IT Specialists**

# 1. Data Base Administrator (DBA)

A database administrator, or DBA[[1]](#footnote-1), is responsible for maintaining, securing, and operating databases and ensures that data is correctly stored and retrieved. In addition, DBAs often work with developers to design and implement new features and troubleshoot any issues. A DBA must have a strong understanding of both technical and business needs.

The role of DBA is becoming increasingly important in today’s information-driven business environment. Throughout the world, more and more organizations depend on data to discover analytical insights on market conditions, new business models, and cost-cutting measures. The global cloud computing market is also expected to expand as companies move their business operations to the cloud. Consequently, the need for qualified DBAs will only continue to grow.

The specific responsibilities of a database administrator vary depending on the size and needs of the organization they work for. However, most DBA duties will include developing and maintaining databases, ensuring data security, tuning performance, backing up data, and providing training and support to users. DBAs may also be responsible for designing databases and overseeing their construction in larger organizations.

**DBA evolved with cloud computing:** The role of a database administrator has evolved significantly with the advent of cloud computing. Rather than being responsible for managing on-premises hardware and software, DBAs now need to be able to work with cloud-based platforms. This requires a different set of skills and knowledge and a different approach to work.

DBAs need to be able to work with different types of databases, such as MySQL, MongoDB, and Cassandra. They also need to be familiar with cloud-based tools and platforms, such as Amazon Web Services (AWS) and Microsoft Azure.

One of the most significant changes is that DBAs are no longer responsible for managing the underlying infrastructure. With cloud computing, this is all managed by the provider. As a result, DBAs now perform more strategic tasks, such as data analytics, user experience design, and cybersecurity. DBAs often work directly with users and business leaders on developing new ways to use data and software to automate processes, reduce costs, and stay competitive.

This requires a new set of skills from DBAs. In the past, having strong technical skills was the most important requirement. There is less need for these skills with cloud computing. Instead, DBAs need to communicate and collaborate with users to understand their needs and business environment. They also need to work with other teams, such as DevOps, to help deliver software that will solve business problems.

Overall, the traditional role of a DBA is changing significantly thanks to cloud computing. DBAs need to be able to adapt to these changes to be successful in their roles.

# 2. Networking Administrator

Network Administrators are professionals responsible for the design, implementation, and maintenance of an organization's computer networks. They ensure that networks are efficient, secure, and accessible. Network Administrators manage hardware, software, and connectivity solutions, troubleshoot network issues, and implement security measures to protect against cyber threats. As businesses continue to expand their digital presence, the role of Network Administrators becomes increasingly critical. They work with technologies such as routers, switches, firewalls, and various networking protocols to create and maintain robust and secure communication infrastructures.

After extensive research, interviews, and analysis, Zippia's [[2]](#footnote-2)data science team found that:

* The projected network administrator job growth rate is 5% from 2018-2028.
* About 18,200 new jobs for network administrators are projected over the next decade.
* Network administrator salaries have increased 9% for network administrators in the last 5 years.
* There are over 503,319 network administrators currently employed in the United States.
* There are 106,886 active network administrator job openings in the US.
* The average network administrator salary is $71,357.

# 3. Web Developer

Web Developers [[3]](#footnote-3)usually specialize in either front-end development – to put it quite simply, everything a user sees when they use a website or web application – or back-end (server-side) development, while those versatile enough to do both are called Full-Stack Developers.

For those who don’t work in tech, the distinction between those roles and the other various roles relating to web and software development can be quite confusing. Here’s an overview of some of the job titles in web development:

* **Web Designer:** This might sound obvious, but if “designer” is in the title, the job involves designing for the web. Web Designers literally decide and implement how websites and web apps look, feel, and work. Specific skills necessary for Web Designers would include design tools, HTML, CSS, and some JavaScript.
* **Front-End Web Developer:** A Front-End Web Developer focuses on HTML, CSS, JavaScript, and light back-end work, not just design. In some cases, a Front End Developer might implement the creations of a Web Designer. In some Front End Developer roles, there will be some design included but deeper skill in the other technologies is also demanded.
* **Back-End Web Developer:** The work of a Back-End Web Developer is invisible to users but crucial to the functioning of a website. Back End Developers tend to work with a variety of programming languages such as Python, Ruby, and SQL. Other Back-End Developers are focused on developing mobile apps using coding languages like HTML5, C++, and Java.
* **Full-Stack Web Developer:** To put it simply, Full-Stack Developers are comfortable and skilled working on both the front end and the back end. It’s important to stress that to be a good Full-Stack Developer, you can’t be mostly strong on the front end and a little weak on the back end, or vice versa. You truly have to be a master of both to master full-stack development. If you can accomplish it, you will be handsomely rewarded – Full-Stack Web Developers are in high demand and tend to have high salaries to match.
* **UX Designer:** UX (User Experience) Designers specifically focus on studying and researching how people use a site, then completing changes for the better through the system and testing the results. Every web development professional on this list needs to consider user experience, but UX Designers live and breathe it.

1. www.oracle.com [↑](#footnote-ref-1)
2. www.zippia.com/network-administrator-jobs/trends/ [↑](#footnote-ref-2)
3. https://brainstation.io/career-guides/is-web-development-a-good-career [↑](#footnote-ref-3)