

**REPORT: IT SPECIALISTS AND THEIR MARKET JOB**

COURSE: COMPUTER TOOLS

April 24, 2024

Raul Francia

Student Code: 2415411

TEACHER: ZOHREH MOEINI

Table of Contents

[**IT SPECIALISTS AND THEIR MARKET JOB** 2](#_Toc164848093)

[**Front - End Developer** 2](#_Toc164848094)

[**Knowledge** 2](#_Toc164848095)

[**Salary** 2](#_Toc164848096)

[**Back - End Developer** 3](#_Toc164848097)

[**Skills** 3](#_Toc164848098)

[**Knowledge** 3](#_Toc164848099)

[**Salary** 3](#_Toc164848100)

[**QA Analyst** 4](#_Toc164848101)

[**Skills** 4](#_Toc164848102)

[**Knowledge** 4](#_Toc164848103)

[**Salary** 4](#_Toc164848104)

[**Salary Comparison Chart** 5](#_Toc164848105)

[**References** 6](#_Toc164848106)

# **IT SPECIALISTS AND THEIR MARKET JOB**

## **Front - End Developer**

A front - end developer has one general responsibility: to ensure that website visitors can easily interact with the page. They do this through the combination of design, technology and programming to code a website’s appearance, as well as taking care of debugging. Whenever you visit a website, anything that you see, click on or otherwise use is the work of a front - end developer.

**Skills**

* Proficiency in HTML, CSS, and JavaScript.
* Experience with front-end frameworks such as React, Angular, or Vue.js.
* Knowledge of responsive design principles.
* Understanding of web performance optimization techniques.
* Ability to collaborate effectively with designers and back-end developers.

# **Knowledge**

* Familiarity with version control systems like Git.
* Understanding of web accessibility standards.
* Knowledge of browser compatibility issues and workarounds.
* Basic understanding of UX/UI principles.

# **Salary**

The salary for Front-end Developers varies depending on location, experience, and company size. On average, they earn between $60,000 to $120,000 per year.

## **Back - End Developer**

A backend developer is a programmer who specializes in developing the server-side of web applications. The backend of a web application is responsible for handling data storage, processing, and retrieval. This is achieved through the use of programming languages and frameworks such as Python, Ruby, Node.js, and Django, among others. The backend developer works to ensure that the server-side of the application functions efficiently, securely, and reliably.

# **Skills**

* + Proficiency in server-side programming languages like Python, Ruby, Java, or Node.js.
  + Experience with database management systems such as MySQL, PostgreSQL, or MongoDB.
  + Knowledge of RESTful API design and implementation.
  + Understanding of security best practices for web development.
  + Ability to troubleshoot and debug server-side issues efficiently.

# **Knowledge**

* + Familiarity with cloud platforms like AWS, Azure, or Google Cloud.
  + Understanding of microservices architecture.
  + Knowledge of caching mechanisms and CDN integration.
  + Experience with Docker and containerization technologies.

# **Salary**

Back - end Developers typically earn between $70,000 to $140,000 per year, depending on experience and location.

## **QA Analyst**

A QA analyst’s duties include testing software, fixing bugs and reporting their findings. They must develop and manage databases of known bugs and use that tracking system to make recommendations for ways to avoid similar mistakes in future products.

# **Skills**

* + Proficiency in test automation tools like Selenium, Appium, or Cypress.
  + Strong analytical and problem-solving skills.
  + Knowledge of software testing methodologies such as manual testing, regression testing, and user acceptance testing.
  + Familiarity with bug tracking systems like Jira or Bugzilla.
  + Excellent communication and collaboration skills.

# **Knowledge**

* Understanding of software development lifecycle (SDLC) processes.
* Knowledge of Agile and Scrum methodologies.
* Experience with performance testing and load testing tools.
* Basic programming skills for writing test scripts.

# **Salary**

QA Analysts typically earn between $50,000 to $100,000 per year, depending on experience and location.

## **Salary Comparison Chart**

This chart provides a comparison of the salaries for the different IT job titles mentioned above. The exact salary ranges may vary depending on factors such as location, experience, and company size.

# **References**

1. Extension, B. (2024, January 15). *Berkeley Boot Camps*. Retrieved from Berkeley Boot Camps: https://bootcamp.berkeley.edu/resources/coding/learn-web-development/what-does-a-front-end-web-developer-do/
2. Hero, J. (2024, January 10). *Job Hero Career Guides*. Retrieved from What is a Database Developer?: https://www.jobhero.com/career-guides/interviews/prep/what-is-a-database-developer
3. In, B. (2024, March 20). *Built In*. Retrieved from QA Analyst: https://builtin.com/learn/careers/qa-analyst
4. Interactive, S. (2024, February 21). *Career Explorer*. Retrieved from https://www.careerexplorer.com/careers/back-end-developer/.
5. Staff, C. (2024, February 17). *Coursera Articles*. Retrieved from What Is a Network Administrator? A Career Guide: https://www.coursera.org/articles/what-is-a-network-administrator-a-career-guide