

MEMO

To: Future husky student interested in web development
From: Ishaan Bhushan Shete
Date: October 8th, 2024
Subject: Choosing a job in web development

INTRODUCTION

As a future husky student wanting to pursue a job in web development, you may be having difficulty choosing a specific position. To help you decide, you can use this memo which compares front end, back end, and full stack development. These positions are compared in Table 1 based on their duties & responsibilities, job skills, project types, salary ranges, market size, and coworker interactions.

COMPARISON

Table 1: Comparison of front end, back end, and full stack development jobs

Criteria	Front End [1]	Back End [2]	Full Stack [3]
Duties & Responsibilities	Shape the user experience. Plan, design, implement, test, maintain, and improve the UI/UX.	Design, develop, test, deploy, and maintain software. Work on server-side logic, managing databases, and API integration.	Research, architect, develop, and deliver solutions. Work on design, multithreading, user interactions, and application security.
Job Skills	<ul style="list-style-type: none">• HTML, CSS, JScript & frameworks• UI/UX principles• Responsive design• Command line programming• Web optimization• Version control systems• Pre-processors• Testing & debugging• DOM manipulation• REST APIs• Technical problem solving• Communication	<ul style="list-style-type: none">• Programming languages & frameworks• HTML, CSS, & JScript• Version control systems• Database management• API integration• Server handling• Data structures & algorithms• Technical problem solving• Communication	<ul style="list-style-type: none">• Programming languages, web technologies, & frameworks• UI/UX principles• Responsive design• Version control systems• MERN or LAMP• Command line programming• Database management• Web architecture & optimization• API integration• Deployment platforms• Technical problem solving• Communication

Criteria	Front End [1]	Back End [2]	Full Stack [3]
Project Types	<ul style="list-style-type: none"> ▪ Generate design and improve the responsiveness of the web application ▪ Determine what is visible to the customer 	<ul style="list-style-type: none"> ▪ Determine processes, blueprint solutions, and develop software for the web application ▪ Determine functionality hidden from the customer 	<ul style="list-style-type: none"> ▪ Develop UI/UX, design software, manage databases, integrate APIs, and safely deploy applications ▪ Determine application specifications end-to-end
Salary range [4]	\$82,819 - \$111,919	\$82,641 - \$159,400	\$85,000 - \$183,000
Market Size	222,600 jobs in 2023. Projected 8% growth in jobs by 2033 [5]	1,897,100 jobs in 2023. Projected 17% growth in jobs by 2033 [6]	94,100 jobs in 2023. Projected 9% growth in jobs by 2033 [5]
Coworker Interactions	<ul style="list-style-type: none"> ▪ Collaborate with a small team on designs & UI/UX ▪ Communicate with software engineers and managers on API integration and web optimization 	<ul style="list-style-type: none"> ▪ Collaborate with a large team on technical solutions ▪ Communicate with web designers and managers on API integration and web optimization 	<ul style="list-style-type: none"> ▪ Generally, no team interaction ▪ If team-based, collaborate with web designers on UI/UX and with software engineers on databases & APIs
Sources: [1] C. Staff. "Front-End Developer Salary: Your 2024 Guide." <i>Coursera</i> . [Online]. 2024. [accessed Oct. 09, 2024]. [2] C. Staff. "Back-End Developer Salary: Your 2024 Guide." <i>Coursera</i> . [Online]. 2024. [accessed Oct. 09, 2024]. [3] "19 Essential Full Stack Developer Skills [2024 Guide]." <i>Springboard Blog</i> . [Online]. Nov. 2023. [accessed Oct. 09, 2024]. [4] "Full Stacks Developer Salaries." <i>Glassdoor</i> . [Online]. Jun. 06, 2024. [accessed Oct. 09, 2024]. [5] U.S. Bureau of Labor Statistics. "Web Developers : Occupational Outlook Handbook: : U.S. Bureau of Labor Statistics." <i>Bls.gov</i> . [Online]. Apr. 13, 2018. [accessed Nov. 12, 2024]. [6] U.S. Bureau of Labor Statistics. "Software Developers : Occupational Outlook Handbook: : U.S. Bureau of Labor Statistics." <i>Bls.gov</i> . [Online]. Apr. 13, 2018. [accessed Nov. 12, 2024].			

CONCLUSION

Front end, back end, and full stack development differ in the fields of their duties & responsibilities, job skills, project types, salary range, market size, and coworker interactions.

- If you like having few but critical responsibilities, then pick front end development
- If you are skilled in UI/UX principles and programming languages equally, then choose full stack development
- If you like working on the technical solutions and functionality only, then pick back end development
- If high income is your greatest motivation, then go for full stack development
- If simply getting a job is your priority, pick back end development, as it has the most opportunity
- If you like working with a small group of colleagues, choose front end development

RECOMMENDATION

I recommend going for back end development. With the largest job market, and more projected to open up soon, you are most likely to land a job in software engineering. It also offers a competitive salary range, making this path appealing both professionally and financially.

REFERENCES

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