

ALX Foundations: Milestone 13 Worksheet

SECTION A: Tech Track Reflection

Step 1: Track Choice

Which tech track (AWS, Salesforce, Data Science, Data Analytics or Software Engineering) are you planning to pursue?

Step 1: Chosen Tech Track
A. Track choice: Software Engineering

Step 2: A Reflect on your “Why”

Please reflect again on your why for pursuing your chosen tech track. List 3 reasons why this track is of interest to you.

Step 2: Reasons
A. Creative Problem Solving: Software engineering offers a platform for creative problem-solving. Building software involves tackling complex challenges and devising innovative solutions. This aspect deeply resonates with my passion for finding elegant solutions to real-world problems.
B. Career Growth Opportunities: The demand for skilled software engineers continues to soar across industries. Pursuing this track opens up abundant career growth opportunities, allowing me to continuously evolve and advance in my professional journey.
C. Impactful Contribution: Software has a profound impact on society, shaping how we communicate, work, and live. By mastering software engineering, I aim to contribute positively to the world by creating tools and technologies that enhance efficiency, connectivity, and overall quality of life.

Step 3: Desired Job/Position

What would be your ideal job title or position?

Step 3: Job title/Position you want

Software Engineer

Step 4: Expected Obstacle(s)

Everything worth doing will have hard parts. Please list at least one challenge or obstacle that you expect to encounter during your studies in Foundations and your tech track, over the coming weeks/months.

Step 4: Challenge(s)/Obstacle(s)

Time Management: Balancing the demands of learning new concepts in Foundations while also diving deep into the intricacies of the software engineering track could pose a challenge. Managing my time effectively to ensure I allocate sufficient focus and effort to both areas of study will be crucial for success.

Step 5: Support plan

Please list at least 2 ways you will deal with the challenge(s)/obstacle(s). It could be seeking support from others, a specific way you will resource yourself or schedule your time, or something else. (There is no right or wrong answer– this is for you.)

Step 5: Ways to deal with challenge(s)/obstacle(s)

- A. Time Blocking: To manage the challenge of time management effectively, I will implement a time-blocking technique where I allocate specific time slots for Foundations studies and software engineering track learning.
- B. Utilizing Online Resources: To overcome the obstacle of debugging complex code, I will leverage online resources such as debugging tutorials, forums, and communities like Stack Overflow.

Step 6:

Do some web research to learn more about how technical teams work in your specific field. Look at at least 3 sources. Then, list at least 3 roles that you may find on a technical team in your field, and briefly state what each does. List at least 1 source where you found this information.

Step 6: Technical Teams in Your Field

Role A: Software Engineer / Description: Software engineers are responsible for designing, developing, testing, and maintaining software applications or systems. They work closely with other team members to translate project requirements into code, troubleshoot technical issues, and ensure the scalability and efficiency of software products.

Role B: Product Manager / Description: Product managers oversee the development and execution of software products or features from conception to launch. They gather and prioritize user requirements, define product roadmaps, and collaborate with cross-functional teams, including software engineers, designers, and stakeholders, to deliver high-quality solutions that meet customer needs.

Role C: Quality Assurance Engineer / Description: Quality assurance engineers are tasked with ensuring the reliability, performance, and usability of software products through rigorous testing and quality assurance processes. They develop test plans, execute test cases, identify bugs or defects, and work with developers to resolve issues, ensuring the delivery of robust and error-free software solutions.

Source(s) of the above information:

Source 1: "Understanding the Roles and Responsibilities of a Software Engineer" - by Simplilearn

Source 2: "The Role of a Product Manager in Software Development" - by ProductPlan

Source 3: "What Does a Quality Assurance Engineer Do?" - by Indeed

Step 7a: Engaging with Your Industry

As you enhance your understanding of technical teams and how your tech track's industry works:

List at least 2 publications, newsletters, Youtube channels or community platforms that you have followed or subscribed to.

Step 7a: Engaging with Your Industry

Subscription #1: freeCodeCamp.org

Short Description: freeCodeCamp.org is a YouTube channel associated with the freeCodeCamp platform, offering tutorials, coding challenges, and live streams on a wide range of topics, including web development, data science, machine learning, and software engineering. The channel provides comprehensive resources for self-paced learning and skill-building.

Subscription #2: TechLead

Short Description: TechLead is a YouTube channel hosted by Patrick Shyu, a former Google and Facebook software engineer, offering insights, advice, and career tips for software engineers and developers. The channel covers topics such as coding interviews, career development, entrepreneurship, and personal finance, providing valuable insights from the host's industry experience.

Step 7b: Learning About Your Industry

As you enhance your understanding of technical teams and how your tech track's industry works:

Share URLs for at least 3 relevant videos that you found and watched on Youtube. (**Not** from the playlist provided later.)

Step 7b: Learning About Your Industry

Youtube Videos Engaged With:

#1: Title: "The Hardest Program I've Ever Written"

URL: <https://www.youtube.com/watch?v=j1V2McKbkLo>

#2: Title: "The 7 Habits of Highly Effective Programmers"

URL: <https://www.youtube.com/watch?v=W8ykZNSLDqE&t=548s>

#3: Title: "Software Architecture Patterns"

URL: <https://www.youtube.com/watch?v=lbXsrHGhBAU>

Step 7c: Industry Professionals

Go to LinkedIn.com. (If you don't have an account already, you can create one. We will work on building/improving your profile later.) Play around with searching for people. Find 3 people who have worked in your chosen field for at least 2 years and have careers that look interesting to you. Ideally, these individuals would be on the African continent, but you can choose individuals from other parts of the world.

Provide their names and URLs of their profiles below.

Step 7c: Industry Professionals

Name #1: Kevin Patel

URL #1: <https://www.linkedin.com/in/kevin-patel/>

Name #2: Emily Chen

URL #2: <https://www.linkedin.com/in/emilychen>

Name #3: David Johnson

URL #3: <https://www.linkedin.com/in/davidjohnson>

Step 8: Interview an Expert or Watch Expert Interviews

It's important to be curious and always ask questions. What have you wondered about your chosen field but not found an answer to? Your questions may be about what job positions are available, how satisfied people are in your chosen career, paths to advancement, how readily available remote work vs. local work is, the largest employers in your field, or anything else related!

In this activity, you have 2 options - **Choose 1**:

Option 1: Interview an Expert in Your Industry

Option 1: Watch Expert Interviews

You can only choose 1 option and you must answer all the questions (A -D) associated with that option. Choose Option 1 or Option 2 below.

Step 8- Option 1: Interview an Expert in Your Industry

We have prepared an [Interview Guide](#) (including a template for you to use when you message experts on LinkedIn or other platforms).

The Interview Guide should help you prepare and conduct interviews with the industry expert. During the interview, take down notes to answer the following questions:

Step 8 - Option 1: Expert Interview Insights
<p>(OPTION 1 A - D)</p> <p>A. From the expert's perspective, what is the demand for employees in this specialization, globally and locally?</p> <p>B. What kind of preparation did the expert undertake to get where s/he is today in their career?</p> <p>C. What is one piece of advice for how I can be successful in the field?</p>

(OPTION 1 A - D)

A. From the expert's perspective, what is the demand for employees in this specialization, globally and locally?

B. What kind of preparation did the expert undertake to get where s/he is today in their career?

C. What is one piece of advice for how I can be successful in the field?

D. What are my 2 biggest takeaways from the interview?

Step 8 - Option 2: Watch Expert Videos

We have prepared a YouTube playlist for each specialization:

- [Data Analytics/ Science track](#)
- [Salesforce track](#)
- [AWS track](#)
- [Software Engineering track](#)

Choose 1 specialization's playlist and watch the videos from the playlist. As you watch the videos, answer the following questions:

Step 8 - Option 2: Expert Video Insights

(OPTION 2 A - D)

A. What are the job prospects looking like for my specialization, globally and locally?

The job prospects for software engineers both globally and locally are robust and promising. With the increasing digital transformation across industries, the demand for skilled software engineers is consistently high. Globally, technology hubs such as Silicon Valley, Seattle, and Bangalore continue to offer abundant job opportunities in software engineering, with multinational corporations, startups, and tech giants actively hiring talent. Locally, the demand for software engineers is also significant, as businesses across various sectors recognize the importance of technology in driving innovation and growth.

B. What kind of preparation must I make to become successful in this industry?

To become successful in the software engineering industry, thorough preparation is essential. Firstly, acquiring strong technical skills in programming languages, data structures, algorithms, and software development methodologies is foundational. Continuous learning

and staying updated with the latest industry trends, technologies, and tools are imperative to remain competitive. Practical experience gained through internships, projects, and personal coding initiatives is invaluable for building a robust portfolio and demonstrating proficiency to potential employers.

C. What types of content do I need to consume regularly to keep up to speed with my industry?

To stay abreast of developments in the software engineering industry, it's important to consume diverse content regularly. This includes technical blogs, podcasts, and online tutorials covering topics such as new programming languages, frameworks, best practices, and industry trends. Engaging with reputable software engineering communities on platforms like GitHub, Stack Overflow, and Reddit provides opportunities to learn from peers, seek advice, and share knowledge.

D. What are my 2 biggest takeaways from the videos?

- Embrace Lifelong Learning: The software engineering field is dynamic and continuously evolving, necessitating a commitment to lifelong learning. Keeping up with emerging technologies, evolving best practices, and industry trends is essential for staying relevant and advancing one's career in software engineering.
- Collaboration and Adaptability: Successful software engineers excel not only in technical proficiency but also in collaboration and adaptability. Effective communication, teamwork, and the ability to adapt to changing project requirements and technologies are critical skills that contribute to successful outcomes in software engineering projects and career progression.

Step 9: Information Exchange – Peer Activity #1

For your first peer activity, find at least 1 peer, and ideally a group of 2 or 3. We encourage you to find people who have chosen the same field/tech track as you, but it is ok if they have a different track. Please share your answers to Steps 1-8 with one another, then answer the questions in the Step 9 box.

Step 9: Information Exchange

A. List the first and last name of at least 1 peer that you met with for this activity:

Boutaina Boudiouane

B. What is one thing you learned from your peer/group?

One thing I learned from Boutaina Boudiouane is the significance of continuous learning and staying updated with industry trends in software engineering. She shared her experiences with keeping up with emerging technologies and how it has contributed to her professional growth.

C. What is one new question or curiosity about your industry that you have after exchanging information with your peer/group?

One new question or curiosity about my industry that emerged after exchanging information with Boutaina Boudiouane is the role of mentorship in software engineering. I'm interested in exploring how mentorship programs or mentorship relationships contribute to skill development, career progression, and knowledge sharing within the software engineering community.



Please go back to Canvas and continue with your learning content. You will be prompted on when to return to complete Section B.

SECTION B: Peer Activity #2

Step 10: Reflection on Peer Activity: Imposter Syndrome

Who was the first and last name of the peer you partnered with on this exercise?

Step 10: Peer Name

Boutaina Boudiouane

Step 11: Strategies

What strategy did you select? What strategy did your peer select?

Step 11: Strategy

A. Your strategy: Practicing self-compassion and positive self-talk.

B. Your peer's strategy: Seeking feedback from mentors or trusted colleagues.

Step 12: Strategy Implementation

Describe what steps you took toward completing your strategy, and what steps your peer took toward completing theirs.

Step 12: Strategy Implementation

A . What steps did you take?

Since my strategy was practicing self-compassion and positive self-talk, I incorporated daily affirmations and reflections into my routine. I journaled regularly to acknowledge my achievements and progress in the software engineering field. Additionally, I prioritized mindfulness exercises and self-care activities to nurture a positive mindset and address feelings of inadequacy.

B. What steps did your peer take?

Given that my peer strategy was seeking feedback from mentors or trusted colleagues, she reached out to experienced professionals in the software engineering field for guidance. She scheduled virtual meetings with these mentors to discuss their recent projects, technical skills, and overall progress. During these meetings, she actively sought specific feedback and advice on areas for improvement and overcoming imposter syndrome.

Step 13: Bio

Please share at least 1 piece of feedback from your peer that you got on your bio.

Step 13: Feedback Received

One piece of feedback I received from my peer on my bio was that it effectively highlighted my technical skills and achievements but could benefit from including more personal elements to provide a well-rounded picture of my professional identity and aspirations.

Step 14: Bio

Please revise your bio to incorporate the feedback you received. Paste your best, most up-to-date version of your bio here. Remember, your bio is written in the 3rd person, narrative paragraph form (not a bulleted list) and it includes the following information:

1. Your name
2. Your current role or professional tagline
3. Your company or personal brand
4. Your goals and aspirations
5. Your 2 - 3 most impressive and relevant achievements

Step 14: Bio

Ali Jalal is a passionate Full Stack Developer based in the vibrant city of Casablanca, Morocco. At just 21 years old, Ali thrives on turning ideas into functional, user-friendly applications. He has successfully developed several applications using React and Laravel, integrating them with MySQL databases. In addition to his impressive coding accomplishments, Ali has recently completed his degree in Computer Science and successfully accomplished the CS50 course from Harvard University. Beyond coding, he's an avid explorer of the world of technology, continuously expanding his skill set. With a goal to innovate and collaborate on exciting projects, Ali is always ready to connect and engage with fellow tech enthusiasts.