

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: 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. Problem-Solving & Impact I am passionate about solving real-world problems through technology. Software engineering allows me to build solutions that address challenges like land fraud, civic engagement, and digital marketplaces.
- B. Scalability & Innovation I love creating scalable applications that can grow and impact millions of users. Platforms like CitizenConnect360 and my ecommerce startup prove how tech can transform industries.
- C. Equity & Ethical Tech I believe in using technology to promote fairness, transparency, and accessibility. By building ethical, user-centered solutions, I aim to create a more inclusive digital world.

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)

- A. Scaling Complex Applications As I work on building and optimizing large-scale platforms, ensuring efficiency, security, and seamless user experience will be a challenge that requires continuous learning and experimentation.
- B. Balancing Development & Business Strategy Since I co-founded a startup, juggling technical development with business strategy and market growth will require careful time management and prioritization.
- C. Advanced System Architecture As I dive deeper into high-performance backends and distributed systems, mastering scalability, microservices, and database optimization will take dedicated effort.

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 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. Continuous Learning & Mentorship I will actively engage in tech communities, mentorship programs, and advanced courses to refine my skills in scalability, system architecture, and business strategy. Learning from experienced professionals will accelerate my growth.
- B. Effective Time Management & Prioritization I will implement structured schedules, agile workflows, and goal-setting techniques to balance development, business operations, and personal learning, ensuring consistent progress without burnout.

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

Product Owner: Represents the stakeholders and customers, defining the product vision and prioritizing features to ensure the development team delivers value.

They bridge the gap between business needs and technical implementation.

Software Developer: Responsible for writing, testing, and maintaining code. They translate design specifications into functional software, ensuring performance and scalability

Quality Assurance (QA) Engineer: Focuses on identifying defects and ensuring the software meets quality standards. They develop and execute test plans, report issues, and collaborate with developers to resolve problems.

Source(s) of the above information:

<u>Brainhub – software engineering company</u>

https://decode.agency/article/software-development-team-roles/

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

1.News Letter

Dev.to (<u>dev.to</u>) – A community-driven platform where developers share insights, tutorials, and experiences

2. YouTube Channels:

- Traversy Media (<u>Traversy Media</u>) Offers high-quality tutorials on React,
 Node.js, databases, and full-stack development.
- The Primeagen (<u>The Primeagen</u>) Focuses on high-performance coding,
 system design, and advanced software engineering concepts.

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: A Week in the life of a Scrum Master *What Scrum Master do All 14 days

| Real Time Scenarios

#2: <u>Development Team - Roles and Responsibilities in Scrum | Agile & Scrum Full Course - Part 10</u>

#3: What is the role of a Software Development Manager? | Career Guide
Job Description - Skills

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 the names and URLs of their profiles below.

Step 7c: Industry Professionals

Name #1: John Brian NJuguna

URL #1: https://www.linkedin.com/in/njuguna-johnbrian-ngugi/

Name #2: Ndiwa Evans

URL #2: https://www.linkedin.com/in/ndiwa-evans-4a317b357/

Name #3: Denson Ngumo

URL #3: https://www.linkedin.com/in/denson-ngumo/

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 is vs. local work**, 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 2: Watch Expert Interviews

You can only choose I 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 <u>Interview Guide</u> (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

(OPTION 1 A - D)

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

The expert highlighted that the demand for skilled professionals in this field

is growing rapidly both globally and locally. With the rise of cloud computing, AI, cybersecurity, and blockchain technologies, companies are actively seeking skilled developers, DevOps engineers, and software architects. In Africa, particularly in Kenya, there's a rising demand for software engineers, backend developers, and cloud specialists, especially in fintech, e-commerce, and digital services. Remote work opportunities are expanding, making it possible for local talent to work for global companies.

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

The expert started with a strong foundation in computer science, focusing on algorithms, data structures, and software development. They emphasized the importance of continuous learning, earning certifications in cloud computing, DevOps, and security. The expert also actively contributed to open-source projects, attended tech meetups and hackathons, and networked with industry professionals, which opened doors to mentorship and job opportunities.

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

The expert advised: "Never stop learning. The tech industry evolves rapidly, so stay updated with new technologies, engage with communities, and build a strong portfolio. Contributing to open-source projects, networking, and gaining hands-on experience through real-world projects will set you apart."

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

Continuous learning and networking are key to career growth – Keeping up with emerging technologies, certifications, and industry trends is crucial for staying competitive.

Practical experience matters more than just theory – Building real-world

projects, contributing to open source, and collaborating with others significantly boost career opportunities.

Step 8 - Option 2: Watch Expert Videos

We have prepared a YouTube playlist for each specialization:

- <u>Data Analytics/ Science track</u>
- 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?

Lots of people are being laid off, juniors are competing with seniors, Ai is everywhere

- B. What kind of preparation must I make to become successful in this industry?
- Be ready to handle rejection.
- Do lots of leet codes
- Read and do more practicals

- C. What types of content do I need to consume regularly to keep up to speed with my industry?
- Read books like Soft skills.
- Keep up with community channels
- D. What are my 2 biggest takeaways from the videos?
 - Treat software engineering as a business.
 - Be attentive to detail

<u>Step 9:</u> 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:

Terry N. Ngugi

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

Terry emphasized the importance of building a strong personal brand in the tech industry. She shared how maintaining an active GitHub profile, contributing to

open-source projects, and engaging in developer communities can greatly enhance visibility and career opportunities.

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

After our discussion, I became more curious about how companies assess and prioritize open-source contributions when hiring developers. Specifically, I wonder what factors recruiters consider most when evaluating a candidate's GitHub profile or past contributions.



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

SECTION B: Personal Branding

Step 10: Personal Branding and Portfolio Website

In the box below, paste the link to your Portfolio Website.

URL Instructions

Make sure your webpage is live on the web (i.e. not simply a draft in your website builder). At a minimum, your website should contain:

- Your full name.
- o A tagline briefly stating your professional identity
- A photo and additional information/sections are welcome, but optional).

The URL should either be:

- A **custom domain name**, for example www.Kehindelbrahim.com.
- A **shortened URL**, for example https://Bit.ly/Kehindelbrahim.
- A free URL that is clean and short, like https://Kehindelbrahim.site.com.

Step 10: Personal Branding and Portfolio Website

https://sites.google.com/view/cliffordmbithuka

Once you have completed this worksheet:

- 1. Export/convert to .pdf.
- 2. Rename it per the instructions.
- 3. Upload to Savanna as your Milestone 11 Submission.
- 4. Celebrate a job well done!