Institute of Data

Software Engineering

Module 0 | Learn to Learn

Agenda

◎ **Strategies for Learning Software Engineering**

Challenges in Learning Software Engineering

❖ The aim of the program is to make you an **effective** Software Engineer in **industry**.

❖ Information about software development is readily available for anyone to learn but **few** are able to develop their learning and achieve a level where they can **effectively perform** the role of a Software Engineer.
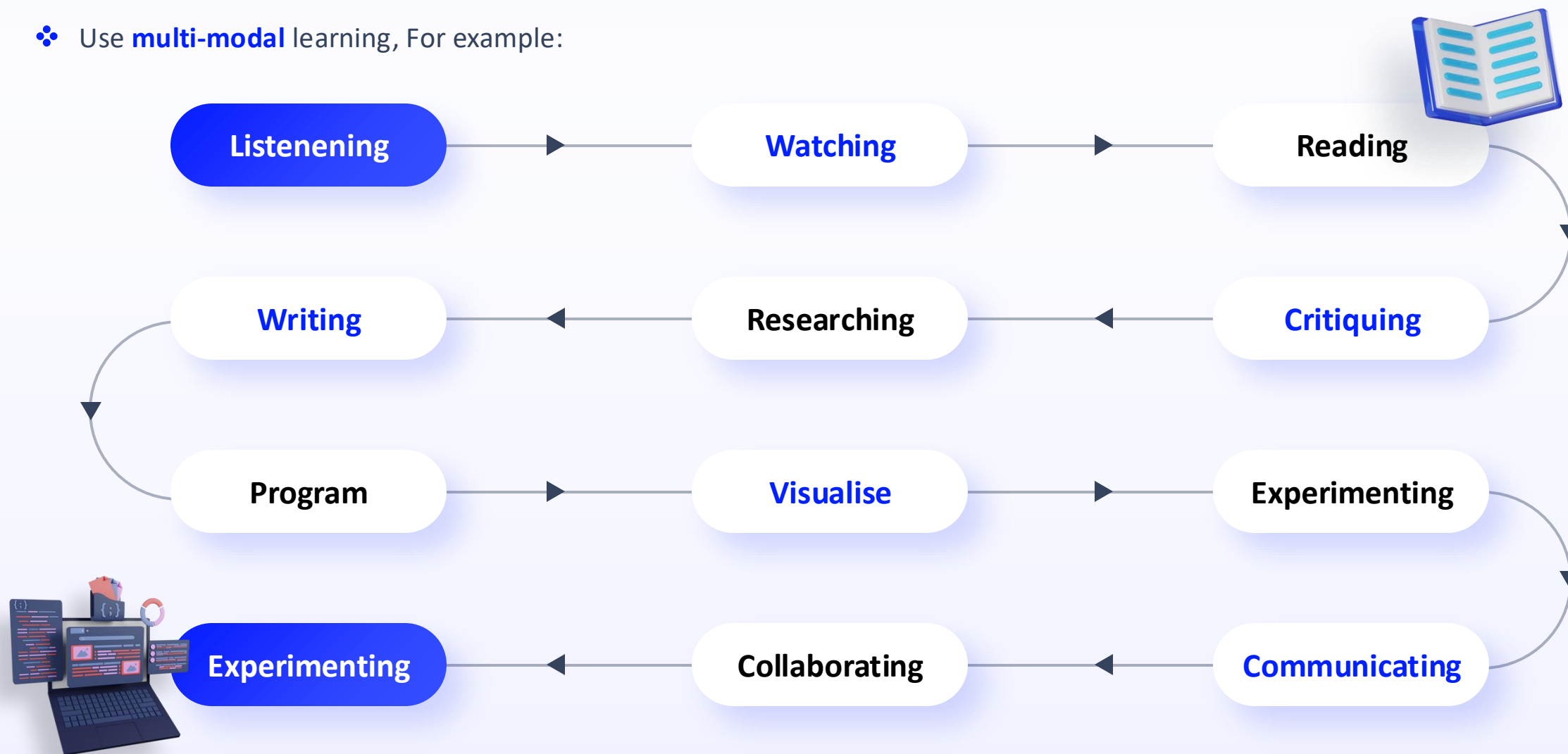
- **Learn how to learn**

Strategies for Learning Software Engineering

❖ Using the following **strategies**, you can do it:

- Accumulate your learnings by creating cheat sheets

- Understand **your strengths** (including your previous experiences). Be flexible but avoid a **generalist** stance.

- Build your own **portfolio**

- **Learn how to learn**

Learning how to learn

❖ Use **multi-modal** learning, For example:

Listenening → Watching → Reading

Critiquing ← Researching ← Writing

Program → Visualise → Experimenting

Experimenting ← Collaborating ← Communicating

Learning how to learn

More Effective

Less Effective

This is not the **sequence** of how you learn.
It is an iterative process.

You should cycle through all these learning modes to produce an effective outcome.

Experimenting
Why are doing this?

Collaborating

Communicating

Experimenting
What if?

Visualise

Program
Make the process reproducible

Writing

Researching

Critiquing

Once you identify your questions, go back and collect the data to answer the questions

Reading

Watching

Listening

Passive

Active

The Minimal Viable Learning (MVL) concept helps you move quickly from learning to creating.

As you create you identify possible gaps in your skills and go back to learning to fill these gaps.

What is the minimum I need to learn to start creating?

Learn

Create

What are the gaps in my skills that are hindering me from creating?