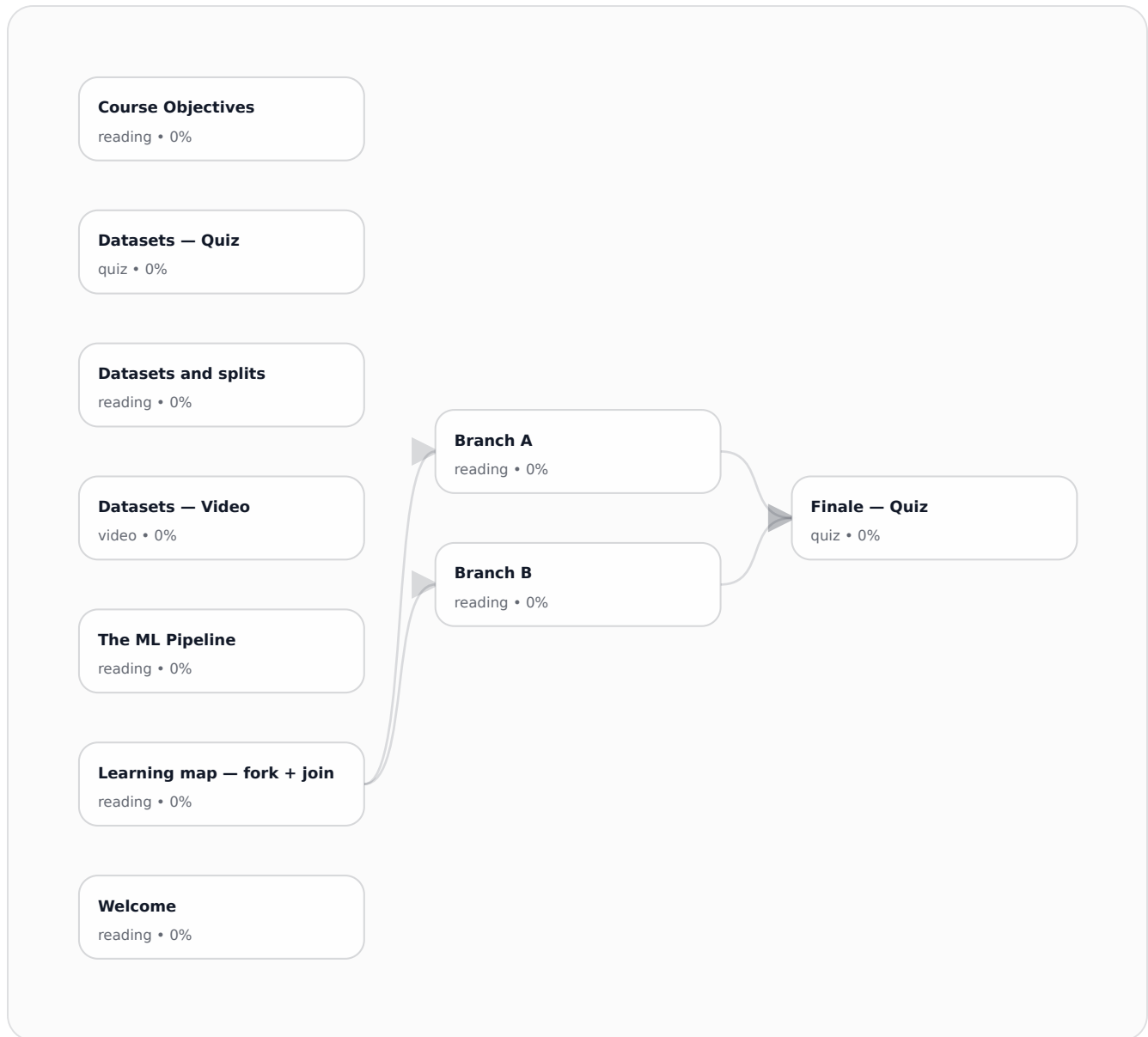


PRISMA MVP1 • STUDENT MANUAL

# qr-poc

Release mvp1-qr-poc-render • Generated 2026-01-29

# Learning map



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# Chapter 1 — Welcome

## Welcome

### Welcome to the QR POC Course

This short course demonstrates Prisma's manifest-driven learning pipeline.

For Day 1 we only need two things working:

- 1) build a schema-valid `manifest.json`
- 2) render a quiz page from the manifest + exercise JSON (server-side)

### Course Objectives

By the end of this module you will be able to:

- Explain what a dataset is and why it matters.
- Distinguish between training, validation, and test sets.
- Explain why the test set should be held out until the end.

# Chapter 2 — The ML Pipeline (with Datasets)

## The ML Pipeline

A machine-learning pipeline is the sequence of steps that transforms raw data into a model:

1. Data collection
2. Data preparation (including dataset splitting)
3. Training
4. Evaluation
5. Deployment

This demo focuses on the dataset split and why it matters.

## Datasets and splits

A **dataset** is a structured collection of examples used to train or evaluate a model.

## Common splits

| Split | Purpose |

|-----|-----|

| Training | Fit model parameters |

| Validation | Tune hyperparameters and decisions |

| Test | Final, unbiased performance estimate |

Using the test set to make repeated decisions leaks information and makes your reported performance too optimistic.

## Datasets — Video

## Video

Scan to watch on your phone.



### Watch video

<https://prisma.treetree2.org/v/datasets-video>

## Datasets — Quiz

### Quiz

*Answer the following question about datasets in machine learning.*

**Question 1.** Which dataset split should you use to report your final, unbiased estimate of generalization?

- ☐ **A.** Training set
- ☐ **B.** Validation set
- ☐ **C.** Test set



**Submit answers  
online**

<https://prisma.treetree2.org/quiz/datasets-quiz>

# Chapter 3 — Fork + Join (Non-linear)

## Learning map — fork + join

This is a deliberately **non-linear** learning path:

- Start here
- Then pick **either** Branch A or Branch B (any order)
- Finish in the final node once both branches are complete

In the demo UI, nodes turn **gold** when completed.

## Branch A

This branch can be completed before or after Branch B.

## Branch B

This branch can be completed before or after Branch A.

## Finale — Quiz

### Quiz

*Answer the question below.*

**Question 1.** In the fork + join path, when is the final node unlocked?

- ☐ **A.** After Branch A only
- ☐ **B.** After Branch B only
- ☐ **C.** After both Branch A and Branch B



**Submit answers  
online**

[https://prisma.treetree  
2.org/quiz/path-finale](https://prisma.treetree2.org/quiz/path-finale)