# CodeLabs - PyTorch

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## Program

- 1. PyTorch introduction
- 2. PyTorch workflow

## **BASICS**

## PyTorch Basics

Tensors are the building blocks of Machine Learning

- Download the tutorial <a href="mailto:pytorch\_101">pytorch\_101</a>.
- Go through it, line-by-line, modify everything and observe the effects.

# WORKFLOWS

## A typical workflow

#### Note

This workflow is for general training of any machine learning algorithm.

- We present, in detail a PyTorch workflow for learning a straight line using a stochastic gradient algorithm.
- In later examples, we will code the optimization manually, since this will be needed for solving other optimization problems arising in inverse paroblems, data assimilation and scientific ML.

### References

1. Please consult the list provided on the website:

CODE REFERENCES