

Structure of Lab 2:

1. Decision Tree

Fill out all **16** placeholders in the code, and answer **3 questions**

Part 1: ID3 (from scratch) — placeholders 1–13

Use the **Baseball** train and test datasets (uploaded to Canvas → Lab section).

Notes

- Print the information gain (IG) for **all** features and compare them.
- Build and visualize the decision tree.
- Compute predictions on the test set.

Part 2: Decision Tree (scikit-learn) — Regression

Use the **Energy** train and test datasets.

- Visualize the tree at **four different depths**.
- Compare their final errors.
- State which depth performs best for this dataset.

2. SVM

Proceed through the code, answering **6 questions** one by one in separate cells, each inserted after its corresponding question.