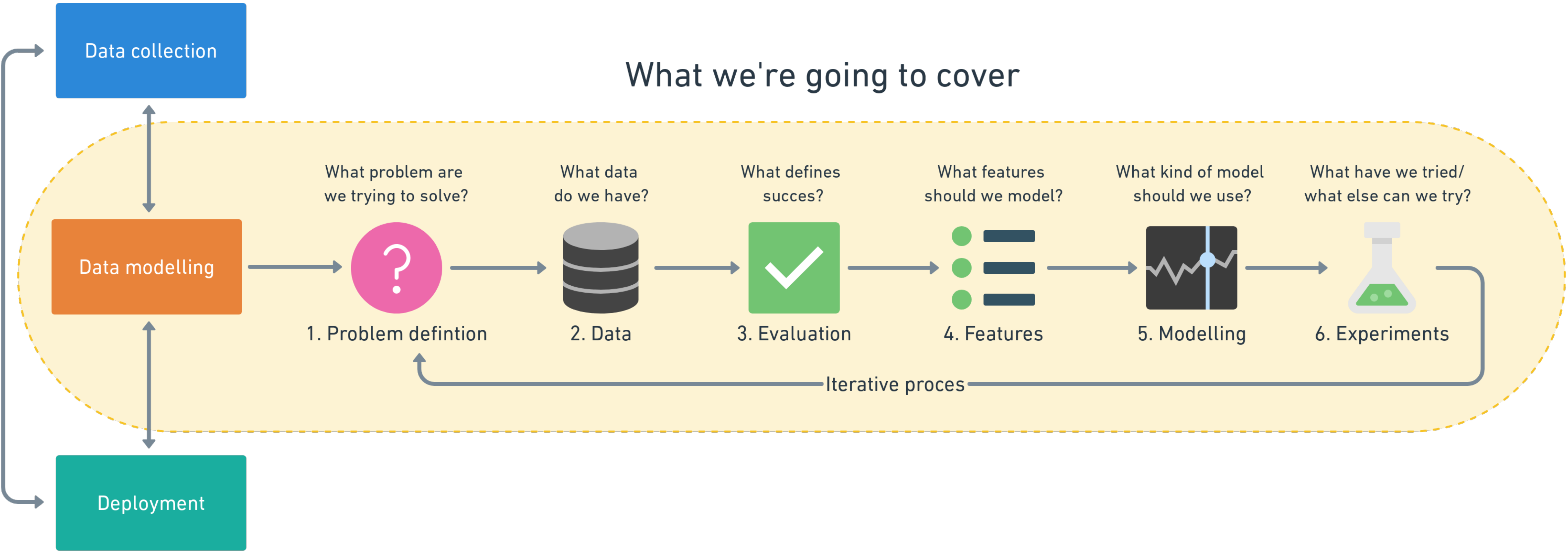Steps in a full machine learning project

5. Modelling Part 3 — Tuning
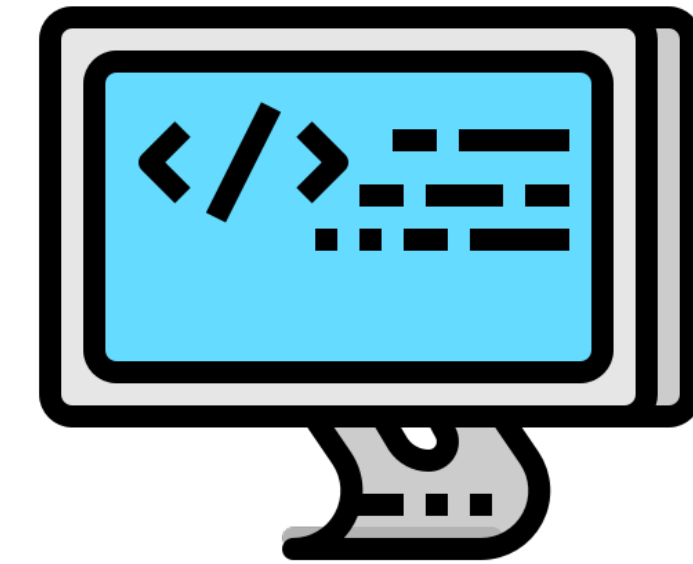
"Based on our problem and data, what model should we use?"

3 parts to modelling
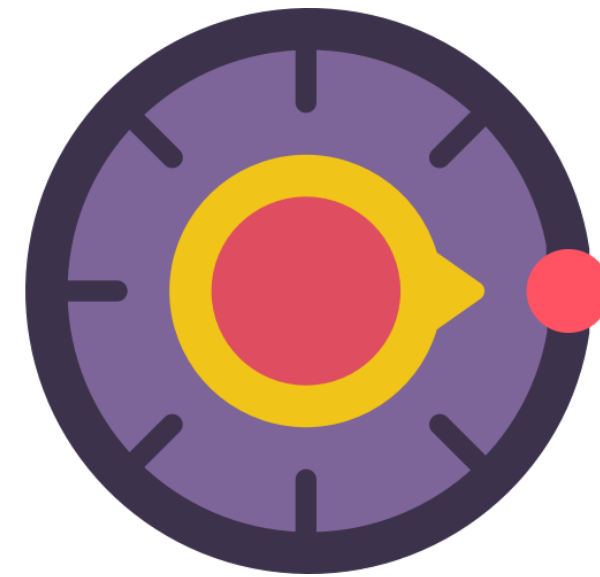
1. **Choosing and training a model**

Training Data
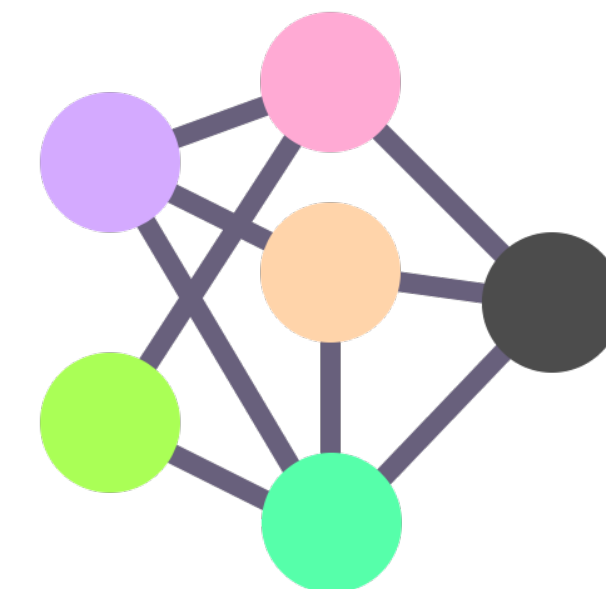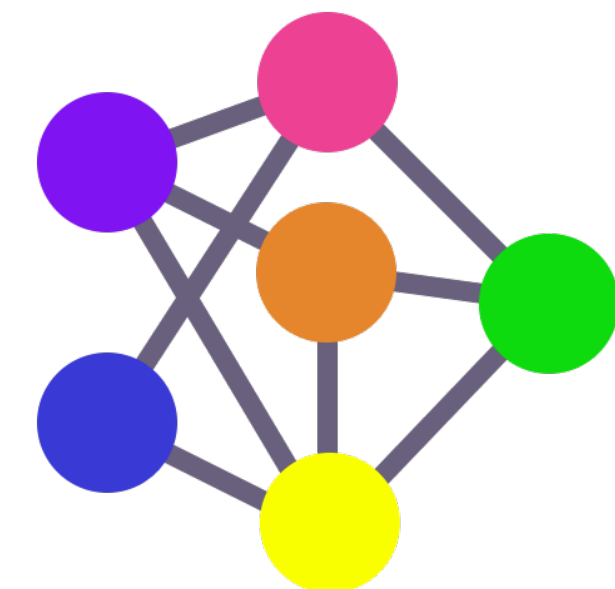
2. **Tuning a model**

Validation Data

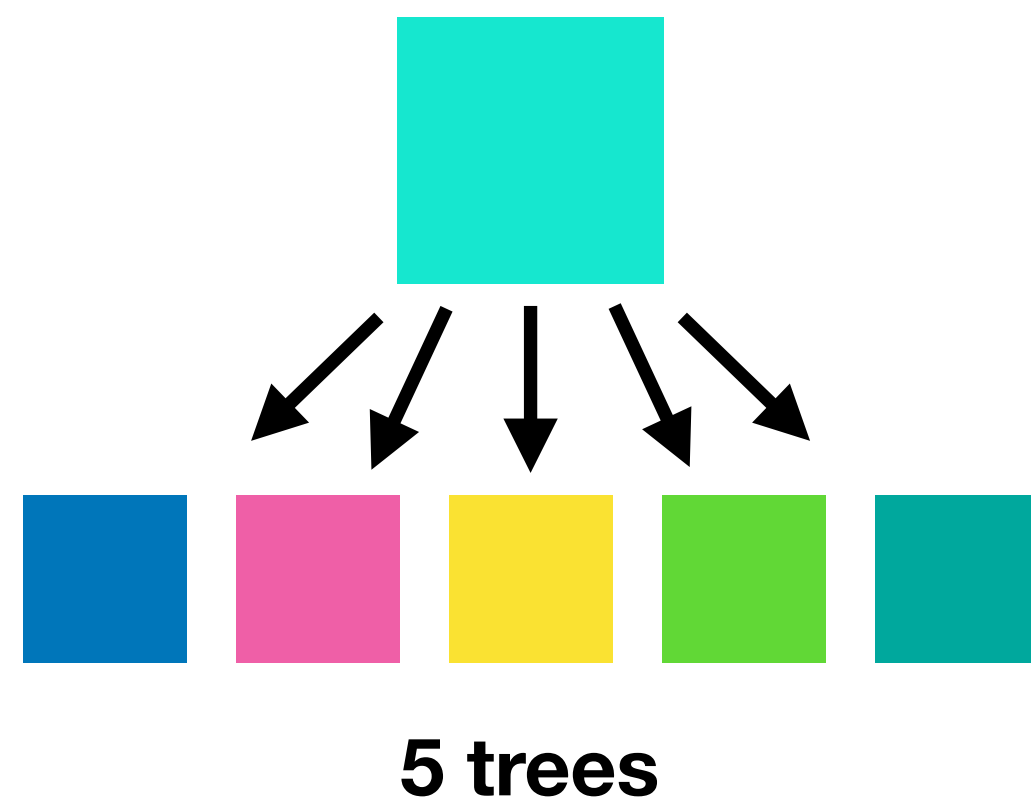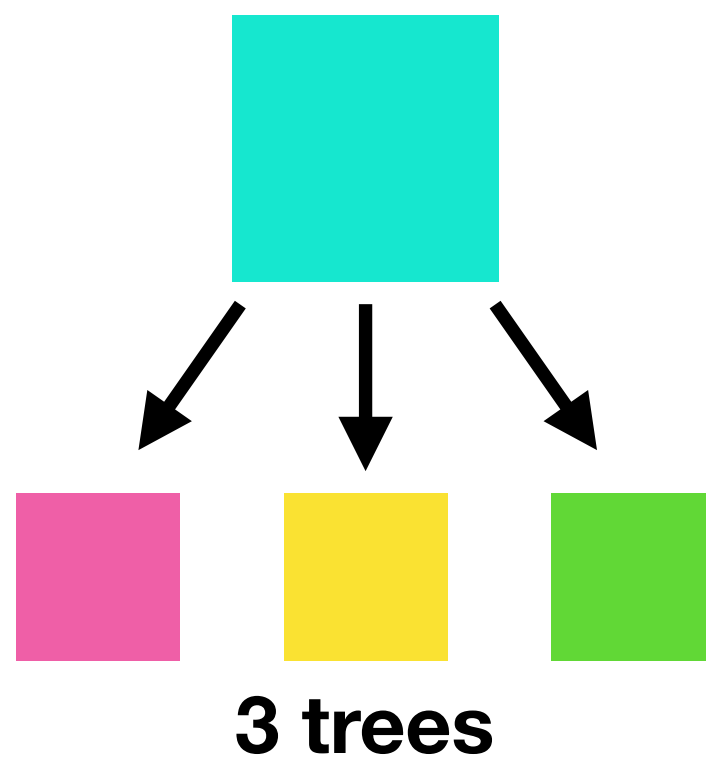3. **Model comparison**

vs.   vs.

Test Data

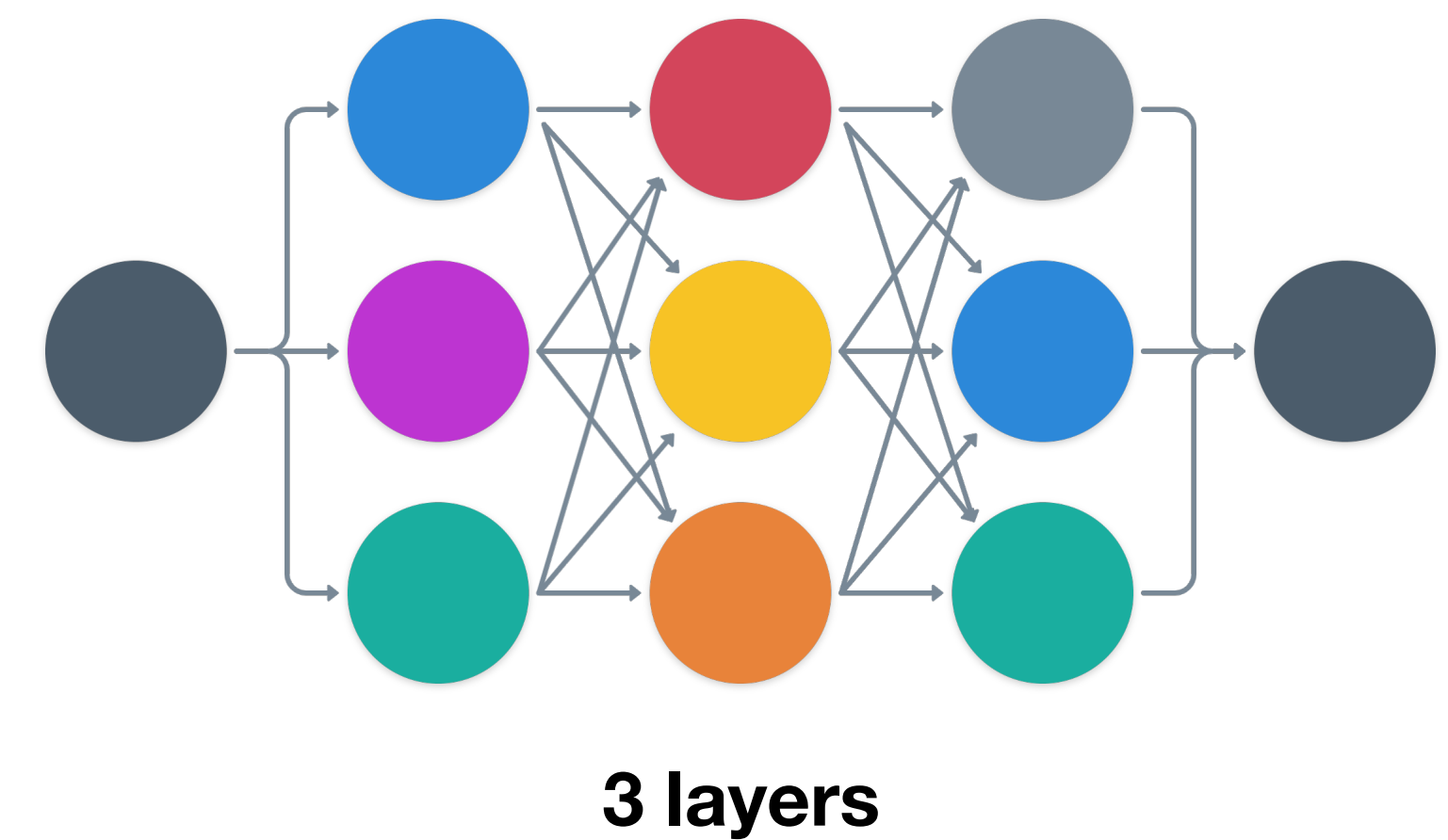# Tuning a model

Cooking time: 1 hour
Temperature: 180ºC

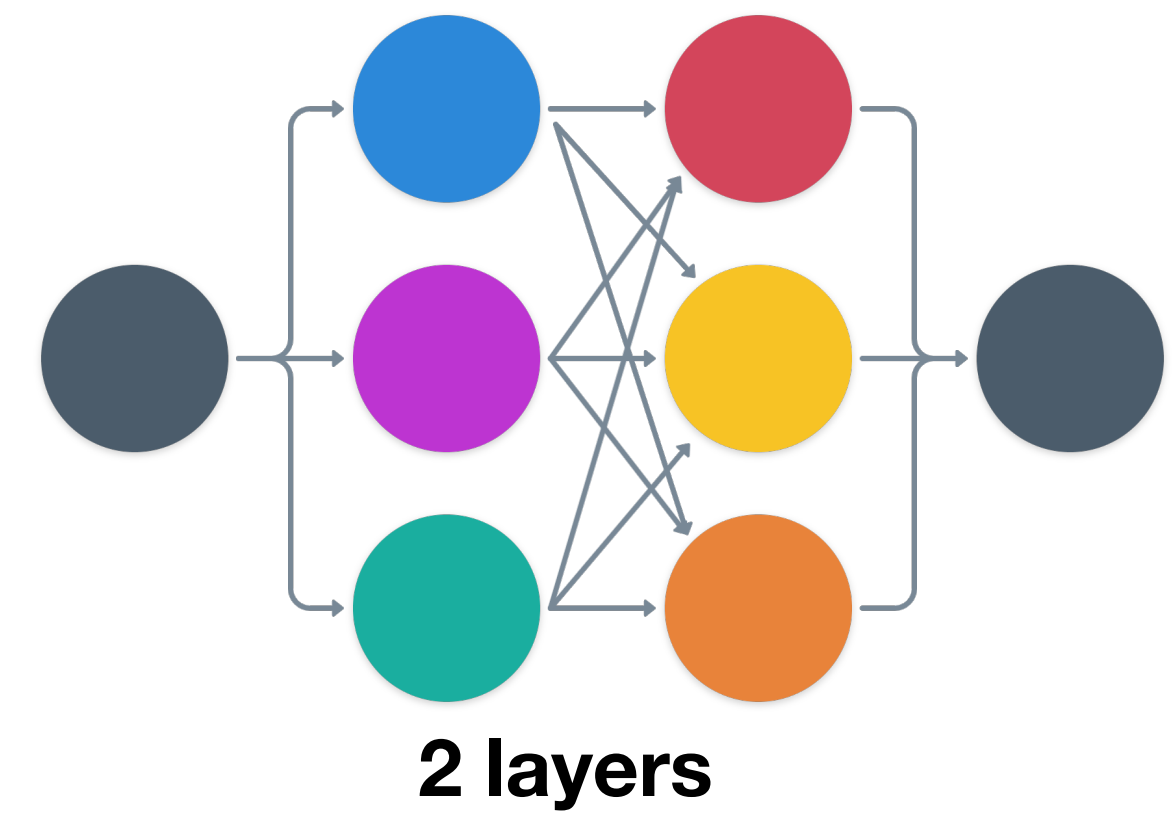Cooking time: 1 hour
Temperature: 200ºC

Tuning a model

Random Forest

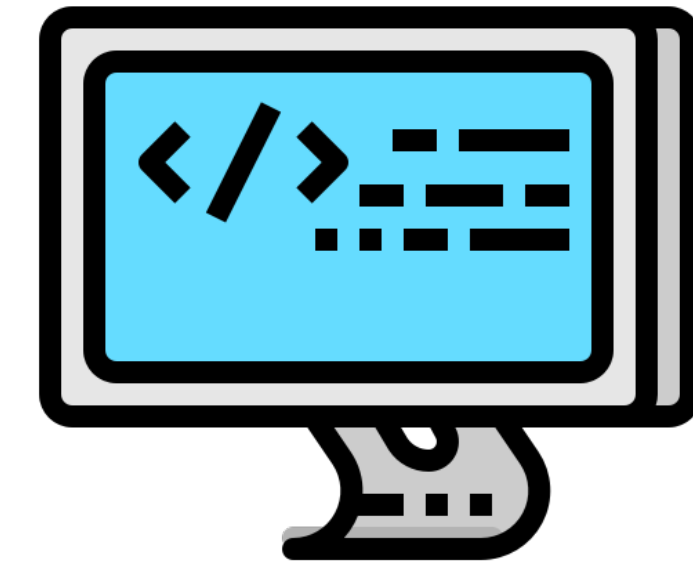

3 trees

5 trees

Neural Networks

2 layers

3 layers

Things to remember

- Machine learning models have hyperparameters you can adjust
- A models first results aren't its last
- Tuning can take place on training or validation data sets

Up next

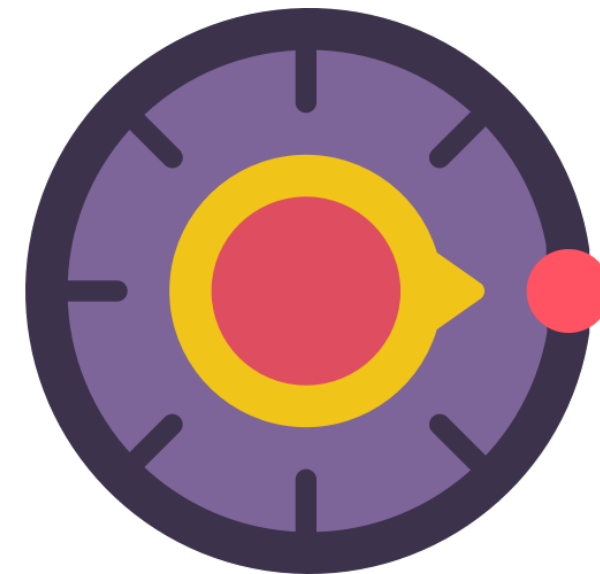1. **Choosing and training a model**

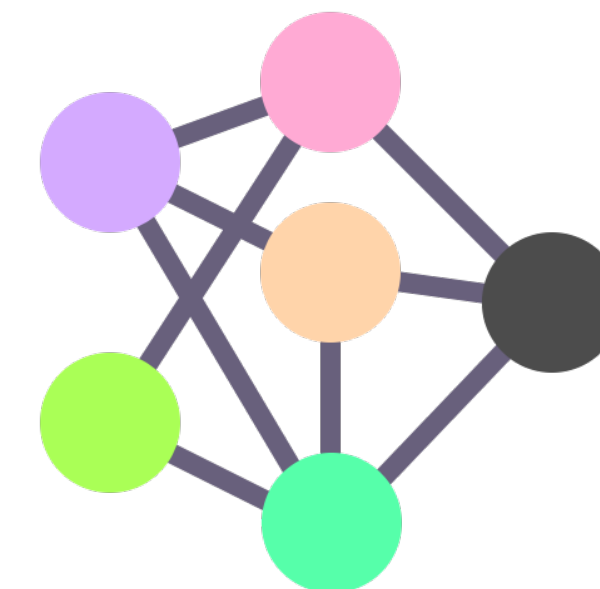**Training Data**

2. **Tuning a model**

Validation Data

3. **Model comparison**

Test Data

or

vs.   vs.