

Random forests and applying our knowledge – Lesson overview

We have previously looked at ensemble learning where we **combine multiple models** to improve overall performance. In this lesson, we look at an application of this concept, the random forest, which leverages the **collective strength of multiple decision trees** to produce more accurate results. We will examine how random forests work and how to apply them in Python.

In this lesson, we also apply the knowledge we have acquired in the earlier weeks by going through the process of evaluating a dataset from scratch and testing various modeling methods to **solve a regression problem**.



Video



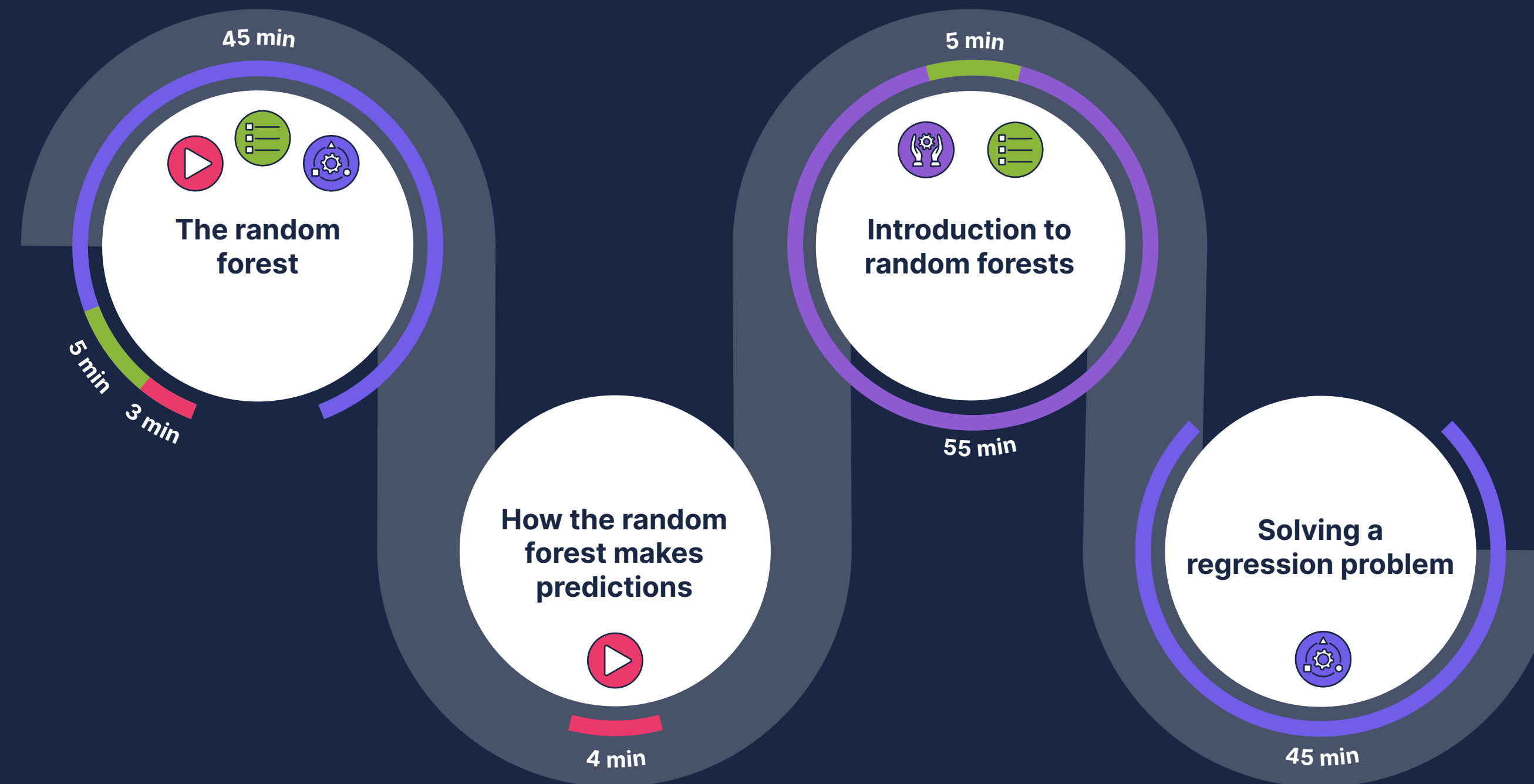
Knowledge questions



Examples



Exercise



Learning objectives

- Apply the data science workflow and regression techniques to solve a regression problem.
- Understand how random forests mitigate the overfitting problem in single decision trees.
- Know how to build, evaluate, and apply a random forest model in Python.
- Understand the fundamentals and mechanisms underlying random forests.

