TASK

Your task for this discussion is to read [Chapter 5 - Machine Learning (Intro Pages 331-342)Links to an external site.](https://jakevdp.github.io/PythonDataScienceHandbook/05.00-machine-learning.html) . This can be found in the link provided or the [pdf version of the textbook](https://elearning.mines.edu/courses/52392/files/5459013/download?wrap=1)[Download pdf version of the textbook](https://elearning.mines.edu/courses/52392/files/5459013/download?download_frd=1)for the class that we have provided. You will then post a discussion and a reply below!

DISCUSSION REQUIREMENTS

Once you have completed this weeks reading, you are asked to complete the following tasks:

1. Post a 1-2 sentence response from the reading for 2 of the three below prompts:

a. Which of the two machine learning categories do you find more interesting?

b. Why do you think clustering is used on unlabeled data, can it be used on labeled data?

c. Freeform! For a response to this question, you must post anything such as clarification questions, something that piqued your interest, or maybe a personal experience you have with the topics discussed in the reading.

2. Post a meaningful reply to another student's question/post.

# Instructional Videos & Materials: Intro to Machine Learning

## WATCH

Watch this week's videos, download the working files so you can follow along and experiment with the platform we'll be using for the course.

**Machine Learning Beginnings Part 1 video**

**Machine Learning Beginnings Part 2 video**

WORKING FILES

You will need the following files to get set up for this week. They include the following:

* Jupyterhub notebooks (download to the personal device then upload to your Jupyterhub).
  + [Machine Learning Beginnings Part 1 Jupyter Notebook](https://elearning.mines.edu/courses/52392/files/5459164/download?wrap=1)[Download Machine Learning Beginnings Part 1 Jupyter Notebook](https://elearning.mines.edu/courses/52392/files/5459164/download?download_frd=1)
  + [Supporting Image](https://elearning.mines.edu/courses/52392/files/5459115/download)[Download Supporting Image](https://elearning.mines.edu/courses/52392/files/5459115/download?download_frd=1)
  + [Machine Learning Beginnings Part 2 Jupyter Notebook](https://elearning.mines.edu/courses/52392/files/5459051/download)[Download Machine Learning Beginnings Part 2 Jupyter Notebook](https://elearning.mines.edu/courses/52392/files/5459051/download?download_frd=1)
  + [Supporting Image](https://elearning.mines.edu/courses/52392/files/5459107/download?wrap=1)[Download Supporting Image](https://elearning.mines.edu/courses/52392/files/5459107/download?download_frd=1)
* PDF files that contains the same information as the Jupyterhub notebooks, in case your Juypterhub is not yet working.
  + [Machine Learning Beginnings Part 1 PDF](https://elearning.mines.edu/courses/52392/files/5459181/download?wrap=1)[Download Machine Learning Beginnings Part 1 PDF](https://elearning.mines.edu/courses/52392/files/5459181/download?download_frd=1)
  + [Machine Learning Beginnings Part 2 PDF](https://elearning.mines.edu/courses/52392/files/5459054?wrap=1)[Download Machine Learning Beginnings Part 2 PDF](https://elearning.mines.edu/courses/52392/files/5459054/download?download_frd=1)

ADDITIONAL RESOURCES

The links below are supplementary resources to help you review or strengthen the topics we have discussed:

* [Ordinary Least Squares ExplanationLinks to an external site.](https://www.khanacademy.org/math/linear-algebra/alternate-bases/orthogonal-projections/v/linear-algebra-least-squares-approximation)
* [MSE and RMSELinks to an external site.](https://www.vernier.com/til/1014)
* [Underfitting and OverfittingLinks to an external site.](https://www.geeksforgeeks.org/underfitting-and-overfitting-in-machine-learning/)