

Using Jupyter notebooks

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Lecture Objectives

After this lecture, you should be able to:

- start using Jupyter notebooks for your Python code

Jupyter notebooks

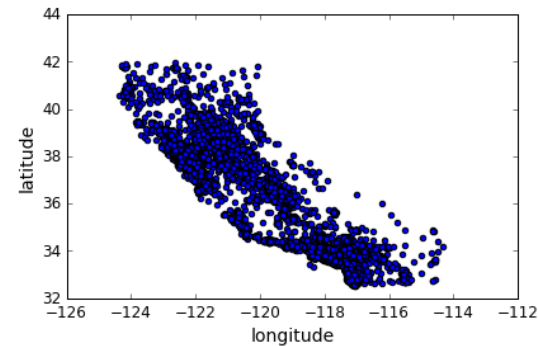
Jupyter notebooks, like R markdown files, let you combine text and Python code.

Discover and visualize the data to gain insights 🔍

```
In [29]: housing = strat_train_set.copy()
```

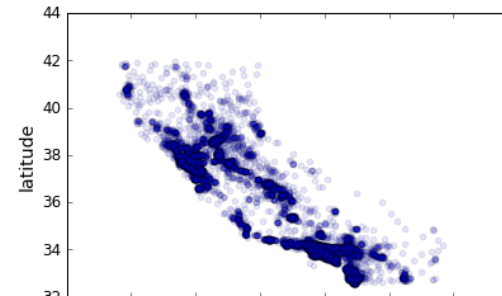
```
In [30]: housing.plot(kind="scatter", x="longitude", y="latitude")  
save_fig("bad_visualization_plot")
```

Saving figure bad_visualization_plot



```
In [31]: housing.plot(kind="scatter", x="longitude", y="latitude", alpha=0.1)  
save_fig("better_visualization_plot")
```

Saving figure better_visualization_plot



Structure of a notebook

A notebook is a sequence of "cells"

markdown cell

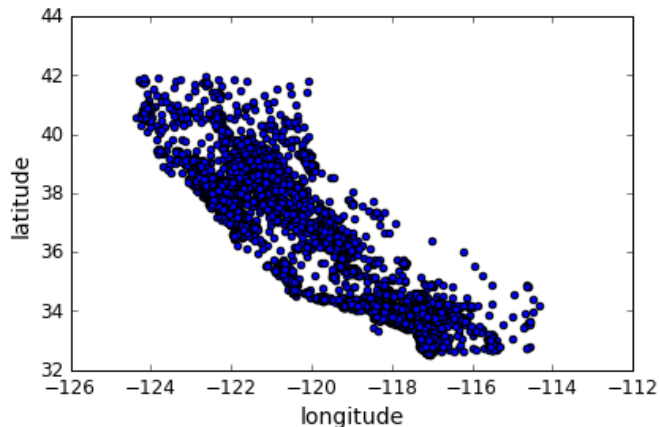
Discover and visualize the data to gain insights



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In [29]: housing = strat_train_set.copy()
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In [30]: housing.plot(kind="scatter", x="longitude", y="latitude")  
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Saving figure bad_visualization_plot



code cell

```
In [31]: housing.plot(kind="scatter", x="longitude", y="latitude", alpha=0.1)  
save_fig("better_visualization_plot")
```

What is markdown?

Markdown is a standardized text-based syntax for formatting.

raw text

examples of markdown:

Large heading

****bold text****

> quoted text

- list item 1

- list item 2

after processing:

examples of markdown:

Large heading

bold text

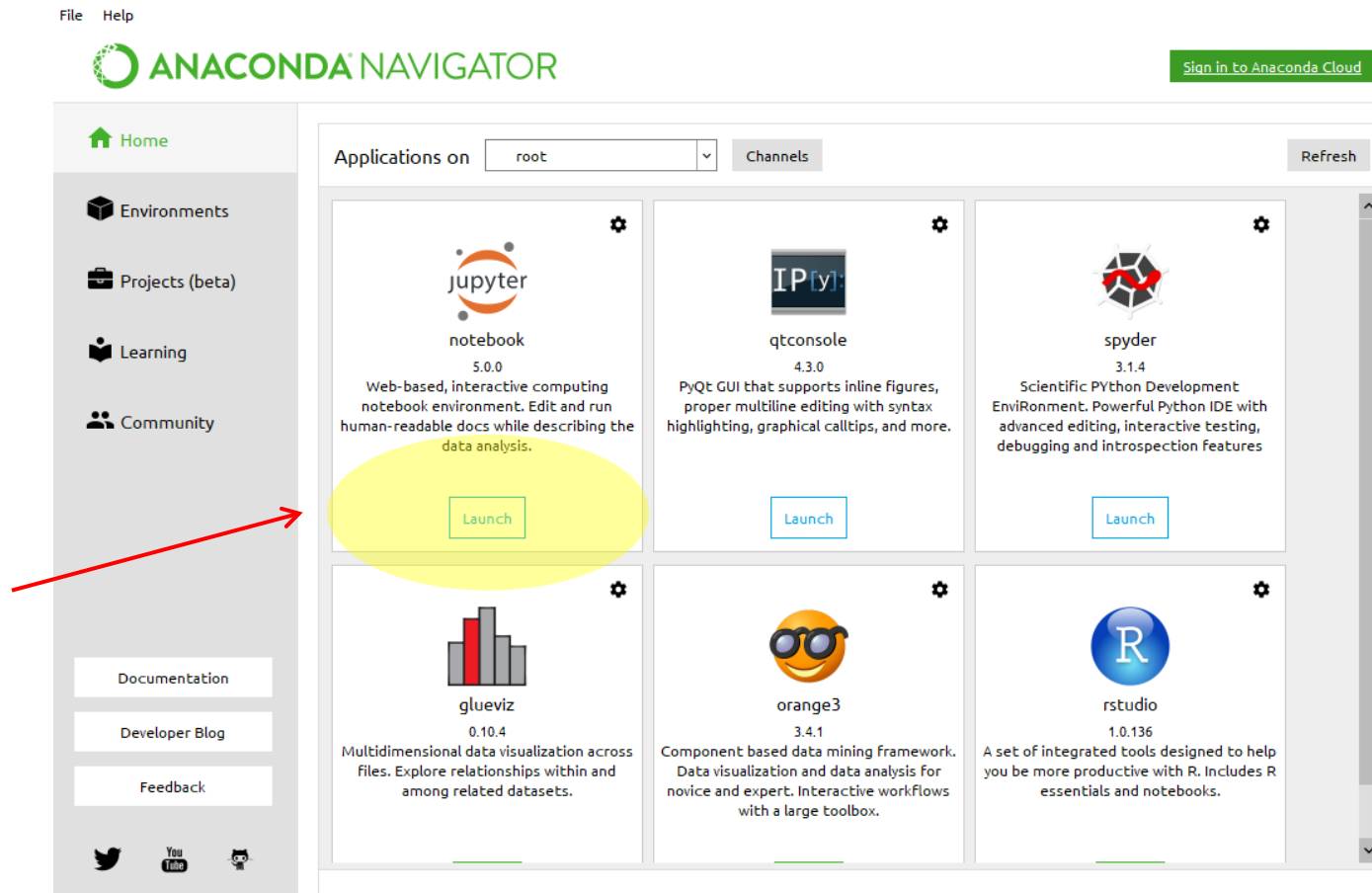
quoted text

• list item 1

• list item 2

Starting Jupyter notebook

Launch Jupyter notebook using the navigator, or type "jupyter notebook" at the Anaconda prompt



Summary

- ❑ With Jupyter notebooks code and text can be combined.
- ❑ Assignment for this class will often ask you to submit a Jupyter notebook.
- ❑ Some students like coding in the notebook environment; other prefer an IDE.