

Exercise 1: Looking for clusters visually

From the course *Transition to Data Science*. [Buy the entire course for just \\$10](#) for many more exercises and helpful video lectures.

You are given an array `points` of size 300x2, where each row gives the (x, y) co-ordinates of a point on a map. Make a scatter plot of these points, and use the scatter plot to guess how many clusters there are.

Step 1: Load the dataset (*written for you*).

```
In [1]: import pandas as pd

        df = pd.read_csv('datasets/ch1ex1.csv')
        points = df.values
```

Step 2: Import PyPlot

```
In [2]: import matplotlib.pyplot as plt
```

Step 3: Create an array called `xs` that contains the values of `points[:, 0]` - that is, column 0 of `points`:

```
In [3]: xs = points[:, 0]
```

Step 3: Create an array called `ys` that contains the values of `points[:, 1]` - that is, column 1 of `points`

```
In [4]: ys = points[:, 1]
```

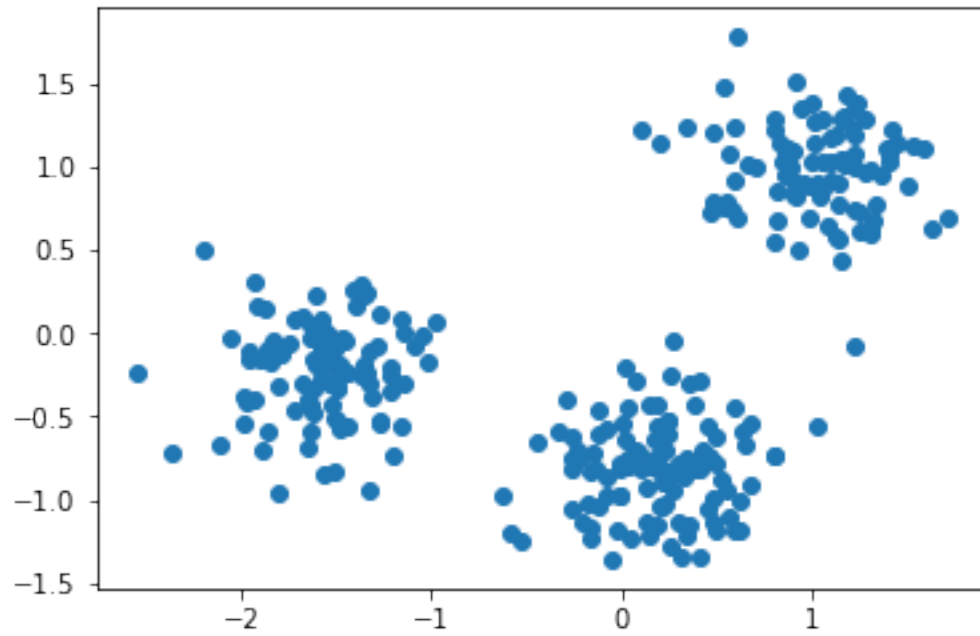
Step 4: Make a scatter plot by passing `xs` and `ys` to the `plt.scatter()` function.

```
In [5]: plt.scatter(xs, ys)
```

```
Out[5]: <matplotlib.collections.PathCollection at 0x110fc45c0>
```

Step 5: Call the `plt.show()` function to show your plot.

```
In [6]: plt.show()
```



In []: