Exercise: Predicting Election Results

In this exercise, you will predict election results from a sample of randomly chosen people.

WE'LL COVER THE FOLLOWING

Task

Consider an election where one million (**1,000,000**) people will vote.

- **490,000** people will vote for Mr. Arthur
- **510,000** people will vote for Mr. Ben.

One day before the election, a private company, Octavius, conducts a poll among 1000 randomly chosen voters.

Problem statement 1

Compute whether Octavius will predict the winner correctly using the approach explained above and print the answer. Voters of Arthur are identified by 0 and those of Ben are identified by 1.

Use the `choice` function to extract random values from the voter sample.

> 💡 Set the value of `seed` to 2.

```
import numpy as np
import numpy.random as rnd

rnd.seed(2)
```

```
# write your code here
```




Problem statement 2

Perform the poll **1000** times. Count how many times Arthur wins and how many times Ben wins.

Also, find the probability that Octavius will predict the correct winner based on these **1000** polls of **1000** people.

> 💡 Set the value of `seed` to 2.

```
import numpy as np
import numpy.random as rnd

rnd.seed(2)

# write your code here
```




The solution to this exercise will be discussed in the next lesson.