Lecture 3

Loops, dictionaries

Programming in geoinformatics

Autumn 2017

Exercise 1

Create functions `calculateLength()` and `findCommonPoints()` using the code from Homework 2.

Homework

With the following dictionary:

```
cities = {
    "Prague": 1259079,
    "Brno": 377440,
    "Ostrava": 294200,
    "Plzeň": 169033,
    "Liberec": 102562
}
```

Create functions to:

1. add population to cities: `born(amount, city)`
2. subtract population from a city: `deceased(amount, city)`
3. move population from one city to another: `move(amount, from, to)`

Bonus Homework

1 point

Modify the functions `born()` and `deceased()` to add/subtract population from **all cities** if the `city` argument is not provided (e.g. `born(2000)` will add 2000 to all cities in the dictionary).

Hint

Use `None` as the default value.