Python for Data Analysis and Visualization

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Class 2: Dictionaries and JSON

In-Class Exercises

Exercise 1:

1. Create a dictionary called dict_roof_types with initial keys of type1 and type2 and give them values of 1 and 3.
2. Add a third key type3 with a value of 6.
3. Add code to check if a key of type4 exists. If it does not add it to the dictionary with a value of 1 if it does, increment its value by 1
4. Add code to check if a key of type2 exists. If it does not add it to the dictionary with a value of 1 if it does, increment its value by 1
5. Print out all of the keys and values from the dictionary

Exercise 2:

1. Add a dictionary 'Addresses' to the personDict dictionary that in turn contains two dictionaries, 'Home' and 'Work' that use key:value pairs to track addresses under the following values: 'Street', 'City', 'Postcode'. (You may make up the addresses!)
2. Print out the postcode for the work address.
3. Print out the names of the children on separate lines (i.e. not as a list)

Exercise 3:

Write the code to extract each crop ('D_curr_crop') grown by each farm ('id') in the JSON file and the plot number in which they grow it. The output should be in the following string format"

```
Farm no. 1 grows maize in plot 1.
```

Hint 1: You will need to create a counter to track plot number.

Hint 2: There will be several nested loops and conditional statements!