



Assignment 2

For this assignment you'll be looking at 2017 data on immunizations from the CDC. Your datafile for this assignment is in [assets/NISPUF17.csv \(assets/NISPUF17.csv\)](#). A data users guide for this, which you'll need to map the variables in the data to the questions being asked, is available at [assets/NIS-PUF17-DUG.pdf \(assets/NIS-PUF17-DUG.pdf\)](#).

Note: you may have to go to your Jupyter tree (click on the Coursera image) and navigate to the assignment 2 assets folder to see this PDF file).

Question 1

Write a function called `proportion_of_education` which returns the proportion of children in the dataset who had a mother with the education levels equal to less than high school (<12), high school (12), more than high school but not a college graduate (>12) and college degree.

This function should return a dictionary in the form of (use the correct numbers, do not round numbers):

```
{"less than high school":0.2,
 "high school":0.4,
 "more than high school but not college":0.2,
 "college":0.2}
```

```
In [3]: import pandas as pd
def proportion_of_education():
    df = pd.read_csv('assets/NISPUF17.csv', index_col=0)

    EDUC1 = df['EDUC1'].value_counts(normalize=True)
    EDUC1_dict = {"less than high school": EDUC1.iloc[3],
                  "high school": EDUC1.iloc[2],
                  "more than high school but not college": EDUC1.iloc[1],
                  "college": EDUC1.iloc[0]}

    return EDUC1_dict

print(proportion_of_education())
```

```
{'less than high school': 0.10202002459160373, 'high school': 0.1723520112
41876, 'more than high school but not college': 0.24588090637625154, 'coll
ege': 0.47974705779026877}
```

```
In [2]: assert type(proportion_of_education())==type({}), "You must return a dictio
assert len(proportion_of_education()) == 4, "You have not returned a dictio
assert "less than high school" in proportion_of_education().keys(), "You ha
assert "high school" in proportion_of_education().keys(), "You have not ret
assert "more than high school but not college" in proportion_of_education()
assert "college" in proportion_of_education().keys(), "You have not returne
```