

New York University
School of Continuing and Professional Studies
Division of Programs in Information Technology

Introduction to Python
Session 4 Homework Solutions

4.1 Calculate the average Mkt-RF value for a given year using a compiled list.

```
while True:
    uinput = input('please enter a 4-digit year: ')
    if not uinput.isdigit() or len(uinput) != 4:
        print('ERROR: arg must be 4-digit year')
        continue
    break

values = []

fh = open('../python_data/F-F_Research_Data_Factors_daily.txt')

lines = fh.readlines()
wanted_lines = lines[5:-2]

for line in wanted_lines:
    year = line[0:4]
    if uinput == year:
        items = line.split()
        fmktrf = float(items[1])
        values.append(fmktrf)

if len(values) == 0:
    print('no values found')
    exit()

print('{} (Mkt-RF): {} values, max {}, min {}, avg {}'.format(uinput, len(values), max(values), min(values), sum(values) /
```

4.2 Spell checker

```
words = '../python_data/words.txt'
text = '../python_data/sawyer.txt'

word_set = set()

word_text = open(words).read()
spelling_words = word_text.splitlines()

for word in spelling_words:
    word = word.lower()
    word = word.rstrip('.,;!?')

    word_set.add(word)

fh = open(text)
line_count = 0
for line in fh:
    words = line.split()
    for word in words:
        word = word.lower()
        word = word.rstrip('.,;!?')

        if word not in word_set:
            print('misspelled word on line {}: {}'.format(line_count, word))
```
