

# DebuggingBasicsClass2-Completed

February 9, 2022

```
[1]: import pandas as pd
import numpy as np
```

## 1 Examples

```
[2]: def squareMyNumber(n):
    square = n*n

    #####
    return(square)
    #####
    # if you don't have a return statement, your function will return NONE,
    ↪which causes issues

k = squareMyNumber(6)

# If I have 6 friends, and we all bring enough treats for everyone, we'll have
↪k treats!
# If each treat costs $1.50, how much did we spend?

spent = k * 1.5
```

```
[3]: mySentenceIsTheBestSentence = "You know, like a liar."

for letter in mySentenceIsTheBestSentence:#### careful of misspellings if the
↪error says a var is not defined!
    if letter == "l":
        print("It's an l!!!")
```

```
It's an l!!!
It's an l!!!
```

```
[4]: # 1. get raw URL
my_data_frame = "https://raw.githubusercontent.com/cmparlettpelleriti/
↳CPSC392ParlettPelleriti/master/Data/BreastCancer.csv"

# 2. read_csv
d = pd.read_csv(my_data_frame)

d.head()

#3. potential: if you didn't run the imports at the top of the notebook, you'd
↳need to do that here

# hint, look at line 1, and think about ALL the steps you need to do to open a
↳url from github in pandas
```

```
[4]:
```

|   | id       | diagnosis | radius_mean | texture_mean | perimeter_mean | area_mean | \ |
|---|----------|-----------|-------------|--------------|----------------|-----------|---|
| 0 | 842302   | M         | 17.99       | 10.38        | 122.80         | 1001.0    |   |
| 1 | 842517   | M         | 20.57       | 17.77        | 132.90         | 1326.0    |   |
| 2 | 84300903 | M         | 19.69       | 21.25        | 130.00         | 1203.0    |   |
| 3 | 84348301 | M         | 11.42       | 20.38        | 77.58          | 386.1     |   |
| 4 | 84358402 | M         | 20.29       | 14.34        | 135.10         | 1297.0    |   |

  

|   | smoothness_mean | compactness_mean | concavity_mean | concave | points_mean | \ |
|---|-----------------|------------------|----------------|---------|-------------|---|
| 0 | 0.11840         | 0.27760          | 0.3001         |         | 0.14710     |   |
| 1 | 0.08474         | 0.07864          | 0.0869         |         | 0.07017     |   |
| 2 | 0.10960         | 0.15990          | 0.1974         |         | 0.12790     |   |
| 3 | 0.14250         | 0.28390          | 0.2414         |         | 0.10520     |   |
| 4 | 0.10030         | 0.13280          | 0.1980         |         | 0.10430     |   |

  

| ... | texture_worst | perimeter_worst | area_worst | smoothness_worst | \      |
|-----|---------------|-----------------|------------|------------------|--------|
| 0   | ...           | 17.33           | 184.60     | 2019.0           | 0.1622 |
| 1   | ...           | 23.41           | 158.80     | 1956.0           | 0.1238 |
| 2   | ...           | 25.53           | 152.50     | 1709.0           | 0.1444 |
| 3   | ...           | 26.50           | 98.87      | 567.7            | 0.2098 |
| 4   | ...           | 16.67           | 152.20     | 1575.0           | 0.1374 |

  

|   | compactness_worst | concavity_worst | concave | points_worst | symmetry_worst | \ |
|---|-------------------|-----------------|---------|--------------|----------------|---|
| 0 | 0.6656            | 0.7119          |         | 0.2654       | 0.4601         |   |
| 1 | 0.1866            | 0.2416          |         | 0.1860       | 0.2750         |   |
| 2 | 0.4245            | 0.4504          |         | 0.2430       | 0.3613         |   |
| 3 | 0.8663            | 0.6869          |         | 0.2575       | 0.6638         |   |
| 4 | 0.2050            | 0.4000          |         | 0.1625       | 0.2364         |   |

  

|   | fractal_dimension_worst | Unnamed: 32 |
|---|-------------------------|-------------|
| 0 | 0.11890                 | NaN         |
| 1 | 0.08902                 | NaN         |

|   |         |     |
|---|---------|-----|
| 2 | 0.08758 | NaN |
| 3 | 0.17300 | NaN |
| 4 | 0.07678 | NaN |

[5 rows x 33 columns]

```
[5]: names = ["Chelsea", "Dan", "Craig", "Tony", "Blake", "Cynthia", "Julie"]

for name in names: #####
    print(name + " gets an A+!!!")
```

```
Chelsea gets an A+!!!
Dan gets an A+!!!
Craig gets an A+!!!
Tony gets an A+!!!
Blake gets an A+!!!
Cynthia gets an A+!!!
Julie gets an A+!!!
```

```
[6]: mySentence = "Can a bee be said to be or not to be an entire bee if half the_
    ↳bee is not a bee due to an ancient injury?"

words = mySentence.split(" ")
words
```

```
[6]: ['Can',
      'a',
      'bee',
      'be',
      'said',
      'to',
      'be',
      'or',
      'not',
      'to',
      'be',
      'an',
      'entire',
      'bee',
      'if',
      'half',
      'the',
      'bee',
      'is',
      'not',
      'a',
      'bee',
```

'due',  
'to',  
'an',  
'ancient',  
'injury?']