

Sean Chen

Tech Specifications:

Language: Python

Implementation and Compile:

Step 1: Set the right directory of data file. You can type `getcwd()` in Python to find your current directory. Then put the data set the same directory to run it.

```
17 def _init_main():  
18     my_data = pd.read_csv('css490data.csv')
```

Step 2:

Since `init main()` has been created, you can just hit run to compile the program.

```
191         print("%d.  
192     |  
193 _init_main()
```

Data Information

Attribute Information:

- 1) ID number
- 2) Diagnosis (M = malignant, B = benign)
- 3-32)

Ten real-valued features are computed for each cell nucleus:

- a) radius (mean of distances from center to points on the perimeter)
- b) texture (standard deviation of gray-scale values)
- c) perimeter
- d) area
- e) smoothness (local variation in radius lengths)
- f) compactness ($\text{perimeter}^2 / \text{area} - 1.0$)
- g) concavity (severity of concave portions of the contour)
- h) concave points (number of concave portions of the contour)
- i) symmetry
- j) fractal dimension ("coastline approximation" - 1)

Features are computed from a digitized image of a fine needle aspirate (FNA) of a breast mass. They describe characteristics of the cell nuclei present in the image.

Data Source:

Creators:

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