Machine Learning

January 15, 2022

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```
import numpy as np
import matplotlib.pyplot as plt
import pandas as pd
from sklearn.model_selection import train_test_split
```

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```
# Importing the dataset
ds = pd.read_csv('mldata.csv')
ds.head()
```

[ ]:

	age	weight	gender	likeness	height
0	27	76.0	Male	Biryani	170.688
1	41	70.0	Male	Biryani	165.000
2	29	80.0	Male	Biryani	171.000
3	27	102.0	Male	Biryani	173.000
4	29	67.0	Male	Biryani	164.000

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```
X = ds.iloc[:, :-4].values #get a copy of dataset exclude last column
y = ds.iloc[:, [1]].values #get array of dataset in column 1st
```

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```
# Splitting the dataset into the Training set and Test set
X_train, X_test, y_train, y_test = train_test_split(X, y, test_size=1/3,␣
 ↪random_state=0)
```

[ ]:
```
# Scaling
from sklearn.preprocessing import StandardScaler
sc_X = StandardScaler()
X_train = sc_X.fit_transform(X_train)
X_test = sc_X.transform(X_test)
```

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```
# Fitting Simple Linear Regression to the Training set
from sklearn.linear_model import LinearRegression
regressor = LinearRegression()
regressor.fit(X_train, y_train)
```

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```
LinearRegression()
```

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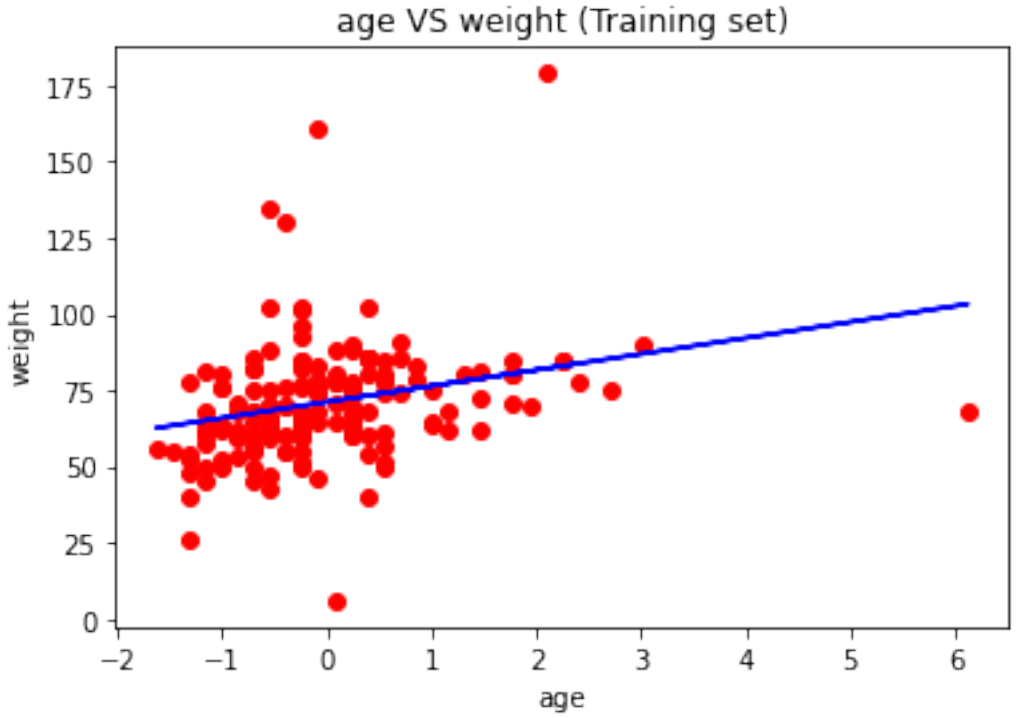
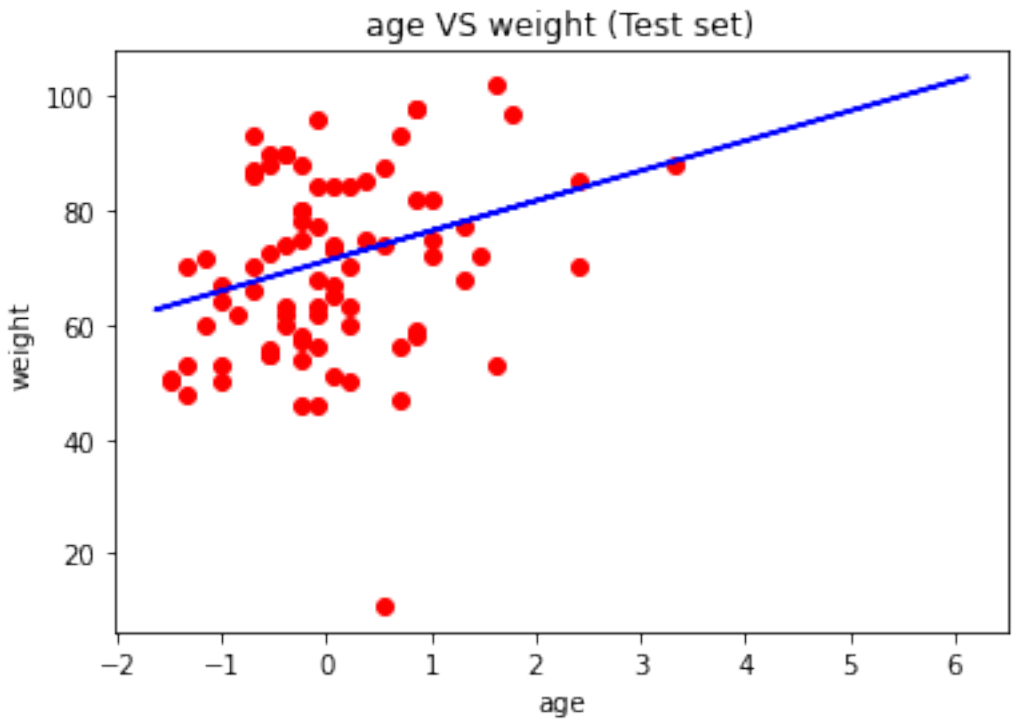
```
# Visualizing the Training set results
viz_train = plt
```

```
viz_train.scatter(X_train, y_train, color='red')
viz_train.plot(X_train, regressor.predict(X_train), color='blue')
viz_train.title('age VS weight (Training set)')
viz_train.xlabel('age')
viz_train.ylabel('weight')
viz_train.show()
```



[ ]:
```
# Visualizing the Test set results
viz_test = plt
viz_test.scatter(X_test, y_test, color='red')
viz_test.plot(X_train, regressor.predict(X_train), color='blue')
viz_test.title('age VS weight (Test set)')
viz_test.xlabel('age')
viz_test.ylabel('weight')
viz_test.show()
```


age VS weight (Test set)
weight
age
100
80
60
40
20
−2
−1
0
1
2
3
4
5
6