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Assignment 2

code:

Assignment 2.py

```python
#!/usr/bin/env python3
# -*- coding: utf-8 -*-
"""
Created on Thu Aug 10 14:28:55 2020

@author: prem
"""

import pandas as pd
import matplotlib.pyplot as plt

dataset = pd.read_csv('iris.csv')

dataset.head()

print(dataset.shape[1]-1)

print(dataset.dtypes)

dataset.describe()

dataset.hist()
plt.show()

dataset[['sepal-length', 'sepal-width', 'petal-length', 'petal-width']].plot.hist(bins = 10,
title='All features')
plt.show()


dataset[['sepal-length']].plot.hist(bins = 10, title='sepal-length')
plt.show()

dataset[['sepal-width']].plot.hist(bins = 10, title='sepal-width')
plt.show()

dataset[['petal-length']].plot.hist(bins = 10, title='petal-length')
plt.show()
```

```python
dataset[['petal-width']].plot.hist(bins = 10, title='petal-width')
plt.show()

dataset.plot.box(title = "All features")
plt.show()

dataset[['sepal-length']].plot.box(title = 'sepal-length')
plt.show()

dataset[['sepal-width']].plot.box(title = 'sepal-width')
plt.show()

dataset[['petal-length']].plot.box(title = 'petal-length')
plt.show()

dataset[['petal-width']].plot.box(title = 'petal-width')
plt.show()
```
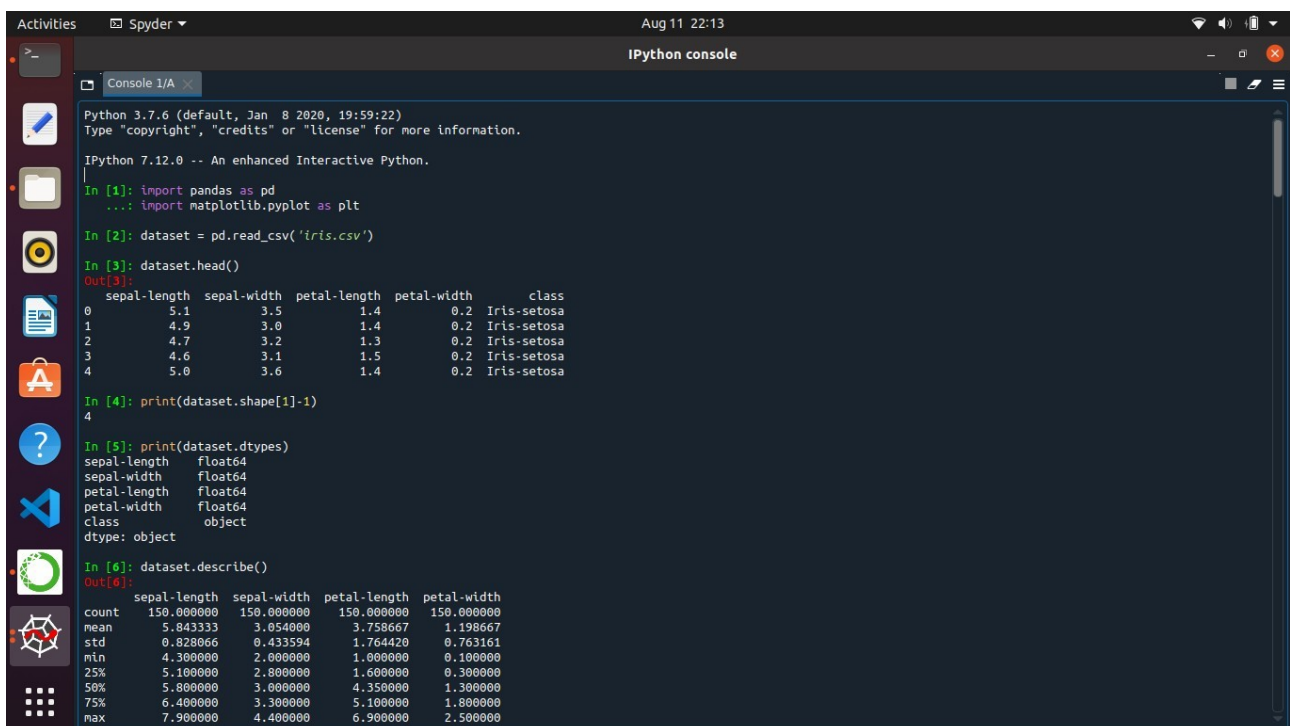
iris.csv

```
sepal-length,sepal-width,petal-length,petal-width,class
5.1,3.5,1.4,0.2,Iris-setosa
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6.7,3.1,5.6,2.4,Iris-virginica
6.9,3.1,5.1,2.3,Iris-virginica
5.8,2.7,5.1,1.9,Iris-virginica
6.8,3.2,5.9,2.3,Iris-virginica
6.7,3.3,5.7,2.5,Iris-virginica
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6.2,3.4,5.4,2.3,Iris-virginica
5.9,3,5.1,1.8,Iris-virginica

IPython console

Console 1/A

```
In [7]: dataset.hist()
   ...: plt.show()
```



```
In [8]: dataset[['sepal-length', 'sepal-width', 'petal-length', 'petal-width']].plot.hist(bins = 10, title='All features')
   ...: plt.show()
```

IPython console

Console 1/A

```
In [9]: dataset[['sepal-length']].plot.hist(bins = 10, title='sepal-length')
   ...: plt.show()
```



```
In [10]: dataset[['sepal-width']].plot.hist(bins = 10, title='sepal-width')
   ...: plt.show()
```

IPython console

Console 1/A ✕

```
In [11]: dataset[['petal-length']].plot.hist(bins = 10, title='petal-length')
    ...: plt.show()
```



```
In [12]: dataset[['petal-width']].plot.hist(bins = 10, title='petal-width')
    ...: plt.show()
```

IPython console

Console 1/A ✕

```
In [13]: dataset.plot.box(title = "All features")
    ...: plt.show()
```



```
In [14]: dataset[['sepal-length']].plot.box(title = 'sepal-length')
    ...: plt.show()
```

IPython console

Console 1/A

```
In [15]: dataset[['sepal-width']].plot.box(title = 'sepal-width')
    ...: plt.show()
```



```
In [16]: dataset[['petal-length']].plot.box(title = 'petal-length')
    ...: plt.show()
```



```
In [17]: dataset[['petal-width']].plot.box(title = 'petal-width')
```

IPython console

Console 1/A

```
In [16]: dataset[['petal-length']].plot.box(title = 'petal-length')
    ...: plt.show()
```



```
In [17]: dataset[['petal-width']].plot.box(title = 'petal-width')
    ...: plt.show()
```