Sania Bibi

Task # 13

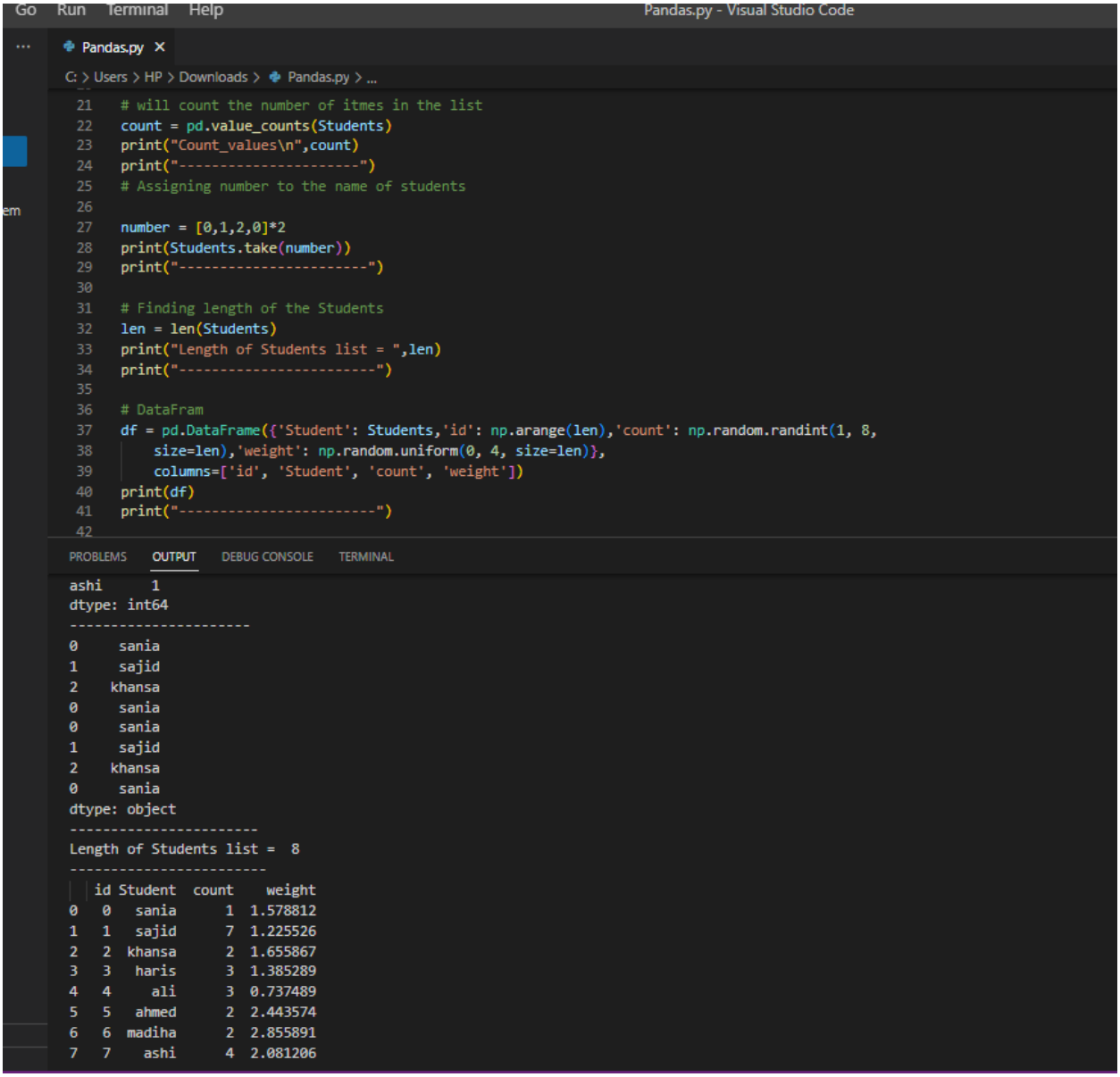
Pandas.py

C: > Users > HP > Downloads > Pandas.py > ...

```python
# Sania Bibi
import numpy as np
import pandas as pd
Students = pd.Series(["sania","sajid","khansa","haris","ali","ahmed","madiha","ashi"])
print(Students)
print("-----------------------")

# Indexing
print("At index zer = ",Students.loc[0])
print("-----------------------")

# List of indexing
print("List indexing = ",Students.loc[[0, 4]])
print("-----------------------")

# Unique repace the duplicate value ir make it unique
uniq = pd.unique(Students)
print("Unique values = ",uniq)
print("-----------------------")

# will count the number of itmes in the list
count = pd.value_counts(Students)
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL

```
[Running] python -u "c:\Users\HP\Downloads\Pandas.py"
0     sania
1     sajid
2    khansa
3     haris
4       ali
5     ahmed
6    madiha
7      ashi
dtype: object
-----------------------
At index zer =  sania
-----------------------
List indexing =  0    sania
4      ali
dtype: object
-----------------------
Unique values =  ['sania' 'sajid' 'khansa' 'haris' 'ali' 'ahmed' 'madiha' 'ashi']
-----------------------
Count_values
 sania     1
sajid     1
khansa    1
haris     1
```


Go Run Terminal Help
Pandas.py - Visual Studio Code
Pandas.py
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# will count the number of itmes in the list
count = pd.value_counts(Students)
print("Count_values\n",count)
print("----------------------")
# Assigning number to the name of students
number = [0,1,2,0]*2
print(Students.take(number))
print("-----------------------")
# Finding length of the Students
len = len(Students)
print("Length of Students list = ",len)
print("-----------------------")
# DataFram
df = pd.DataFrame({'Student': Students,'id': np.arange(len),'count': np.random.randint(1, 8,
size=len),'weight': np.random.uniform(0, 4, size=len)},
columns=['id', 'Student', 'count', 'weight'])
print(df)
print("-----------------------")
PROBLEMS
OUTPUT
DEBUG CONSOLE
TERMINAL
ashi 1
dtype: int64
----
0 sania
1 sajid
2 khansa
0 sania
0 sania
1 sajid
2 khansa
0 sania
dtype: object

Length of Students list = 8
----
id Student count weight
0 0 sania 1 1.578812
1 1 sajid 7 1.225526
2 2 khansa 2 1.655867
3 3 haris 3 1.385289
4 4 ali 3 0.737489
5 5 ahmed 2 2.443574
6 6 madiha 2 2.855891
7 7 ashi 4 2.081206

Pandas.py

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```python
df = pd.DataFrame({'Student': Students,'id': np.arange(len),'count': np.random.randint(1, 8,
    size=len),'weight': np.random.uniform(0, 4, size=len)},
    columns=['id', 'Student', 'count', 'weight'])
print(df)
print("------------------------")

# Convert into catgerical data
student_cat = df['Student'].astype('category')
print(student_cat)
c = student_cat.values
print(c)
print(c.codes)
print("------------------------")

# Checking memory usage
print(Students.memory_usage())
print("------------------------")

# dummy Variable
df= pd.Series(['a', 'b', 'c', 'd'] , dtype='category')
dum = pd.get_dummies(df)
print(dum)
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL

```
5   5   ahmed      2  2.443574
6   6  madiha      2  2.855891
7   7    ashi      4  2.081206
------------------------
0     sania
1     sajid
2    khansa
3     haris
4       ali
5     ahmed
6    madiha
7      ashi
Name: Student, dtype: category
Categories (8, object): ['ahmed', 'ali', 'ashi', 'haris', 'khansa', 'madiha', 'sajid', 'sania']
['sania', 'sajid', 'khansa', 'haris', 'ali', 'ahmed', 'madiha', 'ashi']
Categories (8, object): ['ahmed', 'ali', 'ashi', 'haris', 'khansa', 'madiha', 'sajid', 'sania']
[7 6 4 3 1 0 5 2]
------------------------
192
------------------------
   a  b  c  d
0  1  0  0  0
1  0  1  0  0
2  0  0  1  0
```