**Mid Term – Practice**

1:

Output of the code:

Enter an integer value:500

The user has entered this value: 500

Description:

anIntValue will be assigned with value from user by providing in the output section with the help of input() of Python. Next, the user entered value will be stored in variable named anIntValue and printed in the output section. Here, I entered 500 as an input

2:

The code gives an error below,

Error:

NameError Traceback (most recent call last)

Cell In[1], line 3

1 x = 10.5

2 y = 5

----> 3 Print("Data type of x: ",type(x),'\n')

4 print("Data type of y: ",type(y),'\n')

NameError: name 'Print' is not defined

Error correction:

Correct code for this question is “Print” needs to be replaced with “print” at line 3

Correct Output:

Data type of x: <class 'float'>

Data type of y: <class 'int'>

Description:

In this code, variable x and y are declared with values 10.5 and 5. In the next line, data types of these variables are printed using type and print functions.

3:

The code gives an error below,

Error:

NameError Traceback (most recent call last)

Cell In[3], line 2

1 aDaystring="6/1/2021"

----> 2 aList=aDayString.split('/')

3 print(aList)

NameError: name 'aDayString' is not defined

Error Correction:

In this code, there is a misspell of the variable name, aDaystring. We need to correct the spelling of the variable in line 2.

Correct Output:

['6', '1', '2021']

Description of the code:

A variable aDaystring declared with value 6/1/2021. Next, aDaystring variable is splitted by ‘/’ separator and assigned to aList variable. Finally, we are printing the aList variable

4:

The code gives an error below,

Error:

Cell In[5], line 1

list(range(1,21)]

^

SyntaxError: closing parenthesis ']' does not match opening parenthesis '('

Error Correction:

In this code, ‘]’ is used in place of ‘)’. Therefore, that is the correction of code.

Correct Output:

[1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20]

Description of the code:

Serial numbers are created using range function of Python and casted to list by using list function. Data range is from 1 to 20.

5:

The code gives an error below,

Error:

NameError Traceback (most recent call last)

Cell In[7], line 1

----> 1 list(Range(0,-20,-3))

NameError: name 'Range' is not defined

Error Correction:

Range function with uppercase ‘R’ is used, which is incorrect in python. Hence replace it with range function with lowercase ‘r’ at line 1.

Correct Output:

[0, -3, -6, -9, -12, -15, -18]

Description of the code:

Serial numbers from 0 to -20 with steps of -3 are created using range function and casted to list by using list function.

6:

The code gives an error below,

Error:

Cell In[9], line 1

Import pandas as pd

^

SyntaxError: invalid syntax

Error Correction:

Import keyword with uppercase ‘I’ is used, which is incorrect in python. Hence replace it with import function with lowercase ‘i’ at line 1.

Correct Output:

0

0 5

1 10

2 33

3 14

4 245

Description of the code:

Importing pandas library. A list, aList is assigned with values [5,10,33,14,245]. Pandas dataframe is created using list and assigned to variable df and printing it in the output.

7:

The code gives an error below,

Error:

NameError Traceback (most recent call last)

Cell In[11], line 4

2 aDict= {"Name":["Sally", "Joe", "Jose", "Susan", "Saanvi"], 'Age':[20,30,40, 25,23], 'Time':[2.0,2.2,2.5,2.55,3]}

3 df=pd.DataFrame(aDict,index=['1st Place','2nd Place','3rd Place','4th Place', '5th Place'])

----> 4 print(DF)

NameError: name 'DF' is not defined

Error Correction:

Python is case-senitive language. Hence df and DF are not equal. We need to replace DF with df in line 4.

Correct Output:

Name Age Time

1st Place Sally 20 2.00

2nd Place Joe 30 2.20

3rd Place Jose 40 2.50

4th Place Susan 25 2.55

5th Place Saanvi 23 3.00

Description of the code:

Importing pandas library. A dictionary is created with 3 keys Name, Age and Time and certain values. Pandas dataframe ,df is created with data as above dictionary and index parameter is provided for indexing of data and printing the df at output.

8:

The code gives an error below,

Error:

KeyError Traceback (most recent call last)

File ~/anaconda3/lib/python3.10/site-packages/pandas/core/indexes/base.py:3802, in Index.get\_loc(self, key, method, tolerance)

3801 try:

-> 3802 return self.\_engine.get\_loc(casted\_key)

3803 except KeyError as err:

File ~/anaconda3/lib/python3.10/site-packages/pandas/\_libs/index.pyx:138, in pandas.\_libs.index.IndexEngine.get\_loc()

File ~/anaconda3/lib/python3.10/site-packages/pandas/\_libs/index.pyx:165, in pandas.\_libs.index.IndexEngine.get\_loc()

File pandas/\_libs/hashtable\_class\_helper.pxi:5745, in pandas.\_libs.hashtable.PyObjectHashTable.get\_item()

File pandas/\_libs/hashtable\_class\_helper.pxi:5753, in pandas.\_libs.hashtable.PyObjectHashTable.get\_item()

KeyError: 'five'

Error Correction:

Column name at line 7 is not correct. There is no column named five which is used in place of three. Hence replace df[‘five’] with df[‘three’].

Correct Output:

one two three

t NaN 10.0 NaN

v 5.0 NaN 20.0

w 4.0 5.0 NaN

x 3.0 NaN NaN

y 2.0 2.0 30.0

z 1.0 1.0 1.0

one two three four

t NaN 10.0 NaN NaN

v 5.0 NaN 20.0 25.0

w 4.0 5.0 NaN NaN

x 3.0 NaN NaN NaN

y 2.0 2.0 30.0 32.0

z 1.0 1.0 1.0 2.0

Description of the code:

Pandas library is imported into the code. A dictionary is created with columns ‘one’ and ‘two’. A dataframe, df is created with data as dictionary which created earlier. A new column ‘three’ is added into dataframe, df with some values and printing the df. Next, new column ‘four’ is added to dataframe with values summed up from columns ‘one’ and ‘three’.

9:

The code gives an error below,

Error:

AttributeError Traceback (most recent call last)

Cell In[15], line 3

1 import numpy as np

2 x= np.arange(15).reshape((3,5))

----> 3 y.sum(axis=0)

AttributeError: 'int' object has no attribute 'sum'

Error Correction:

Correct Output:

Description of the code:

10:

The code gives an error below,

Error:

Error Correction:

Correct Output:

Description of the code: