Spring 2024: CS5720

Neural Networks & Deep Learning - ICP-1

Assignment-1

NAME:NANDIMANDALAM VENKATA VINAY VARMA

STUDENT ID:700745193

Github Link: https://github.com/venkatavinayvarma/NeuralNetworks_ICP1.git

Video Link: https://drive.google.com/drive/folders/1B0X1eq38WGeVXGh2-kyPpdM1e71SFWM5?usp=sharing

1.Write a python program for the following:

– Input the string “Python” as a list of characters from console, delete at least 2 characters, reverse the

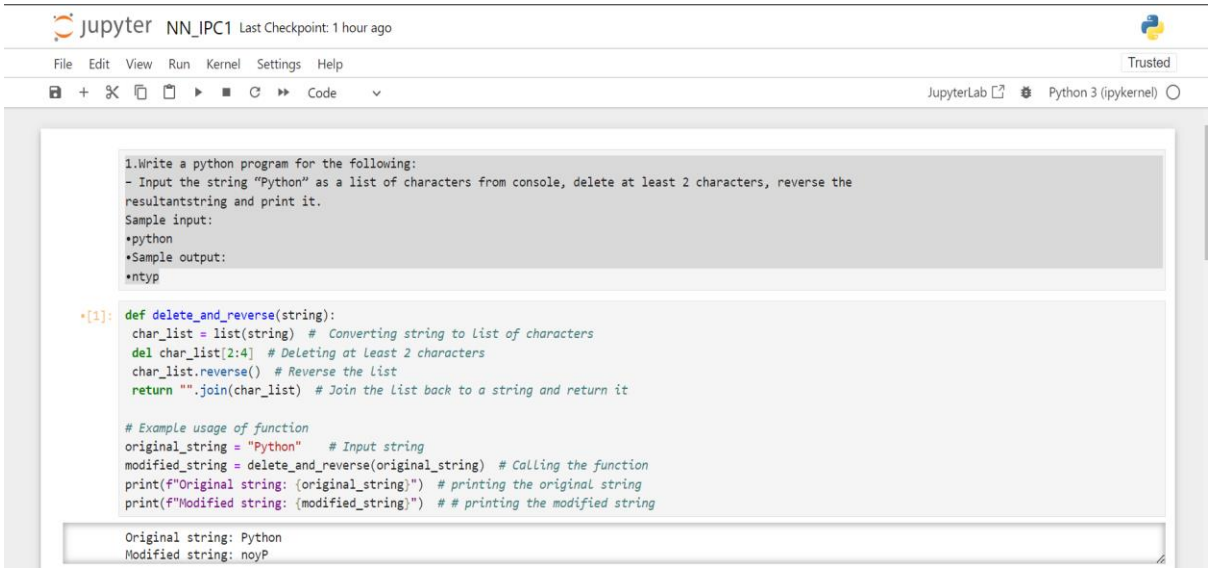
resultantstring and print it.

Sample input:

•python

•Sample output:

•ntyp



– Take two numbers from user and perform at least 4 arithmetic operations on them.

```
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```

```
[7]: def arithmetic_operations(a, b):
         # Performing and printing 4 arithmetic operations
         print("Addition of first and second: ",a+b) # Performing and Printing addition operation
         print("Multiplication of first and second: ",a*b) # Performing and Printing multiplication operation
         print("Modulus of first and second: ",a%b) # Performing and printing modulus operation
         print("Exponential of first and second: ",a**b)   # Performing and Printing exponential operation

     a = float(input("Enter the first number: "))   # Getting user input1 and typecasting it from string to float
     b = float(input("Enter the second number: "))  # Getting user input2 and typecasting it from string to float
     arithmetic_operations(a,b)                     # Calling the function
```

```
Enter the first number:  12
<class 'float'>
Enter the second number:  3
Addition of first and second:  15.0
Multiplication of first and second:  36.0
Modulus of first and second:  0.0
Exponential of first and second:  1728.0
```

2.Write a program that accepts a sentence and replace each occurrence of ‘python’ with ‘pythons’.

•Sample input:

•I love playing with python

•Sample output:

•I love playing with pythons

```
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•Sample input:
•I love playing with python
•Sample output:
•I love playing with pythons
```

```
[8]: def replace_each_occurence(word):
         new_word = word.replace('python','pythons') # replace word python with pythons
         return new_word  # return replaced word

     word = "python"   # input word
     modified_word = replace_each_occurence(word)  # calling function

     print(f"Original word: {word}") # printing original word
     print(f"Modified word: {modified_word}") # printing modified word
```

```
Original word: python
Modified word: pythons
```

3.Use the if statement conditions to write a program to print the letter grade based on an input class score. Use the

grading scheme we are using in this class.

[17]:
```python
def grade_card(score):
    if score >= 90:   # Check for scores in the A grade range
        return 'A grade' # returns grade
    elif score >= 80:    # Check for scores in the B grade range
        return 'B grade' # returns grade
    elif score >= 70:    # Check for scores in the C grade range
        return 'C grade' # returns grade
    elif score >= 60:    # Check for scores in the D grade range
        return 'D grade' # returns grade
    else:          # Check for scores in the  grade range
        return 'Fail'    # returns grade

score = int(input("Enter score of the student: "))  # taking input from user and converting into int
score_card = grade_card(score)  # calling function

print(f"Score of the student: {score}") # printing Score of the student
print(f"Grade of the student: {score_card}") # printing Grade of the student
```

```
Enter score of the student:  100
Score of the student: 100
Grade of the student: A grade
```