

## Spring 2024: CS5720

### Neural Networks & Deep Learning - ICP-1

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Git Hub Link: <https://github.com/Pavan7947/assignment1>

Video Recording Link: <https://github.com/Pavan7947/assignment1>

1. Write a Python program for the following:

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

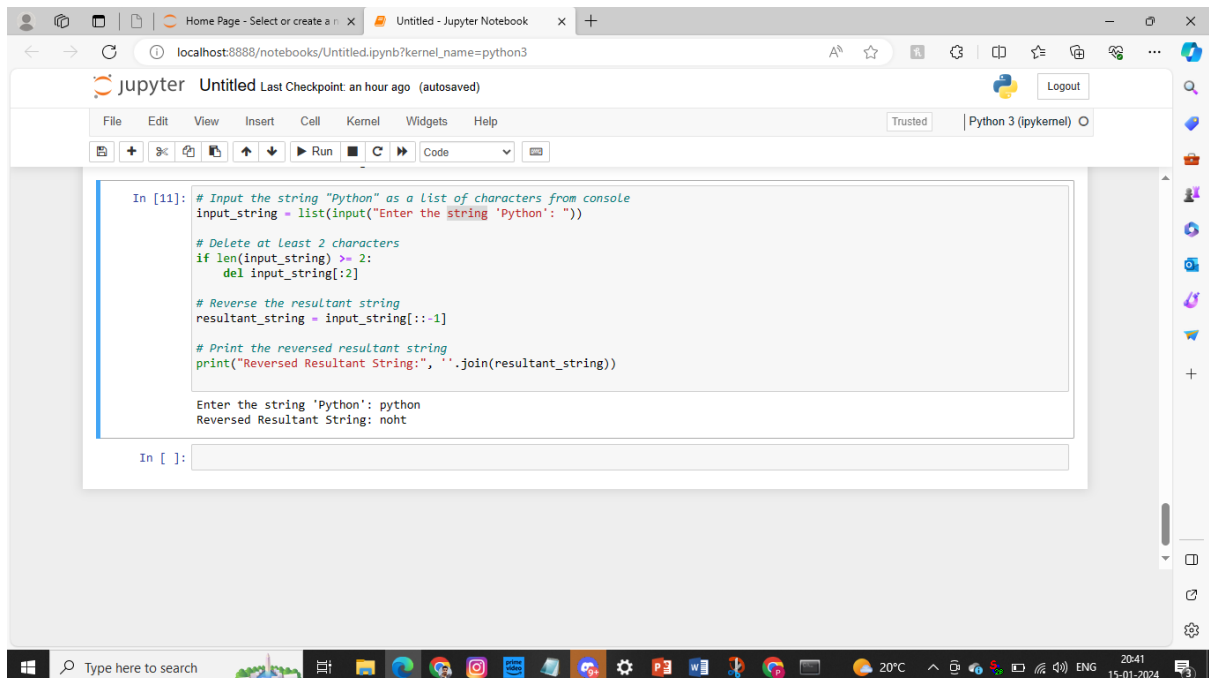
resultant string and print it.

Sample input:

- python

- Sample output:

- ntyp



```
In [11]: # Input the string "Python" as a list of characters from console
input_string = list(input("Enter the string 'Python': "))

# Delete at Least 2 characters
if len(input_string) >= 2:
    del input_string[:2]

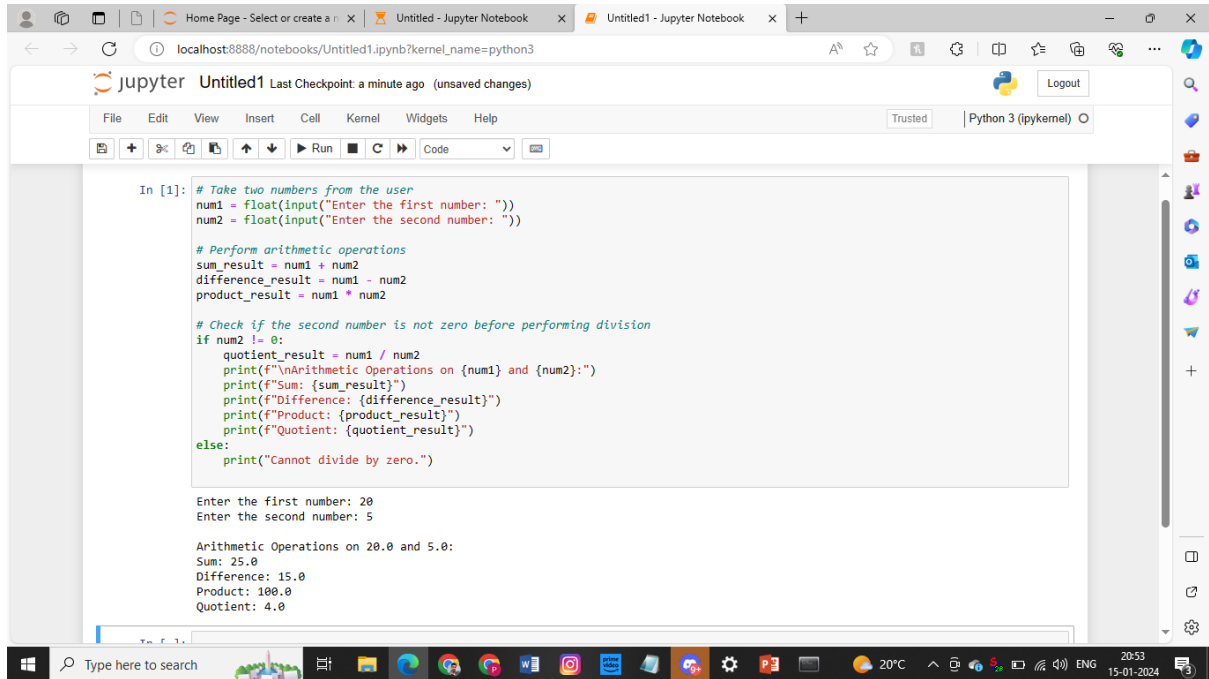
# Reverse the resultant string
resultant_string = input_string[::-1]

# Print the reversed resultant string
print("Reversed Resultant String:", ''.join(resultant_string))

Enter the string 'Python': python
Reversed Resultant String: noht

In [ ]:
```

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



The screenshot shows a Jupyter Notebook interface in a web browser. The browser's address bar displays `localhost:8888/notebooks/Untitled1.ipynb?kernel_name=python3`. The Jupyter interface includes a menu bar (File, Edit, View, Insert, Cell, Kernel, Widgets, Help) and a toolbar with icons for file operations, running, and saving. The notebook title is "Untitled1" with a status "Last Checkpoint: a minute ago (unsaved changes)". The kernel is identified as "Python 3 (ipykernel)".

The code cell contains the following Python code:

```
In [1]: # Take two numbers from the user
num1 = float(input("Enter the first number: "))
num2 = float(input("Enter the second number: "))

# Perform arithmetic operations
sum_result = num1 + num2
difference_result = num1 - num2
product_result = num1 * num2

# Check if the second number is not zero before performing division
if num2 != 0:
    quotient_result = num1 / num2
    print(f"\nArithmetic Operations on {num1} and {num2}:")
    print(f"Sum: {sum_result}")
    print(f"Difference: {difference_result}")
    print(f"Product: {product_result}")
    print(f"Quotient: {quotient_result}")
else:
    print("Cannot divide by zero.")
```

The output of the code execution is displayed below the code cell:

```
Enter the first number: 20
Enter the second number: 5

Arithmetic Operations on 20.0 and 5.0:
Sum: 25.0
Difference: 15.0
Product: 100.0
Quotient: 4.0
```

The Windows taskbar at the bottom shows the search bar, several application icons, and system information including the temperature (20°C), time (20:53), and date (15-01-2024).

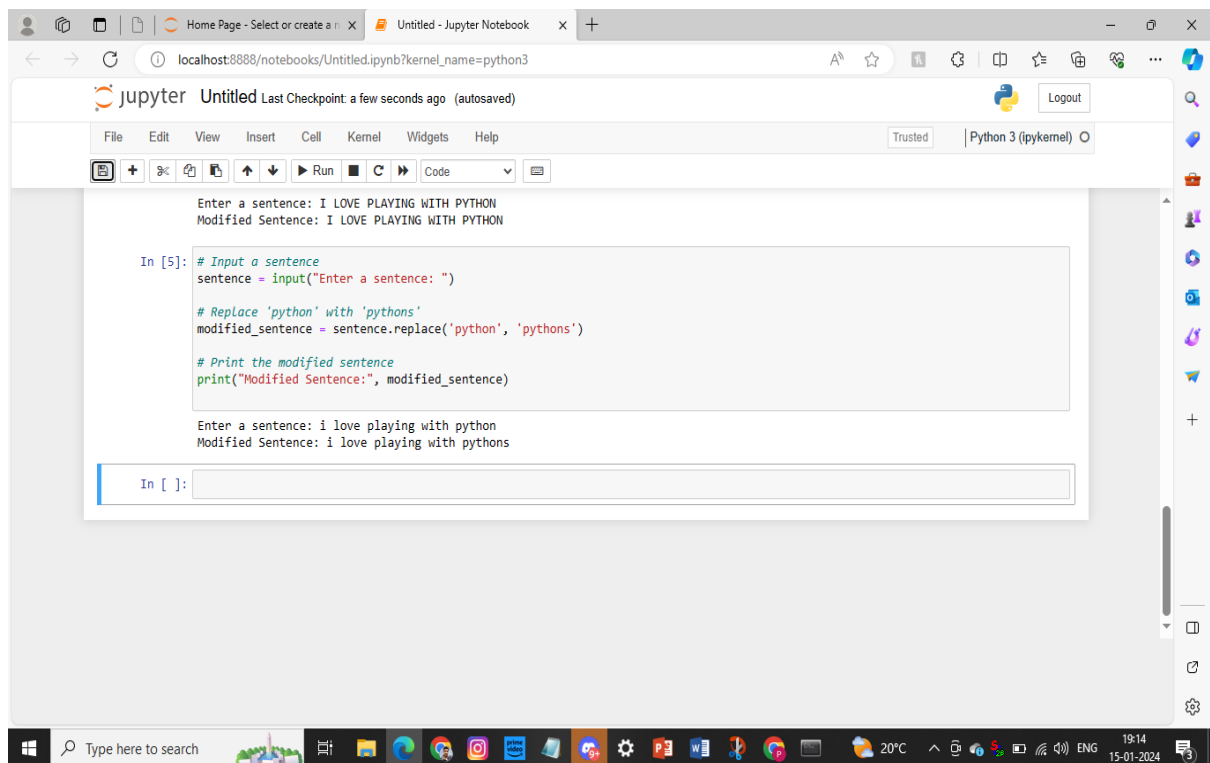
2. Write a program that accepts a sentence and replace each occurrence of 'python' with 'pythons'.

- Sample input:

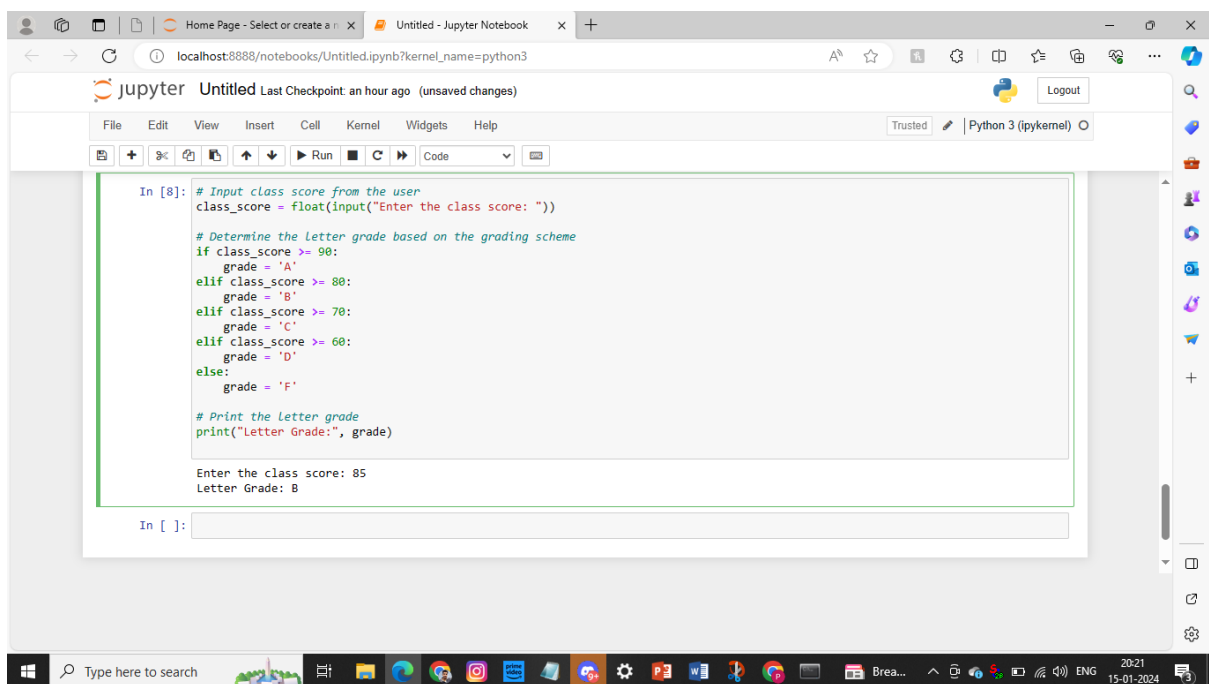
- I love playing with python

- Sample output:

- I love playing with pythons



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.



The screenshot shows a Jupyter Notebook running in a web browser. The notebook has a single code cell with the following Python code:

```
In [8]: # Input class score from the user
class_score = float(input("Enter the class score: "))

# Determine the Letter grade based on the grading scheme
if class_score >= 90:
    grade = 'A'
elif class_score >= 80:
    grade = 'B'
elif class_score >= 70:
    grade = 'C'
elif class_score >= 60:
    grade = 'D'
else:
    grade = 'F'

# Print the Letter grade
print("Letter Grade:", grade)
```

Below the code cell, the output of the program is displayed:

```
Enter the class score: 85
Letter Grade: B
```

The Jupyter Notebook interface includes a menu bar (File, Edit, View, Insert, Cell, Kernel, Widgets, Help) and a toolbar with various icons for file operations, running the code, and viewing the output. The browser's address bar shows the URL: `localhost:8888/notebooks/Untitled.ipynb?kernel_name=python3`. The Windows taskbar is visible at the bottom of the screen.