Python for Deep Learning ICP_1

Lesson 1: Basics of python

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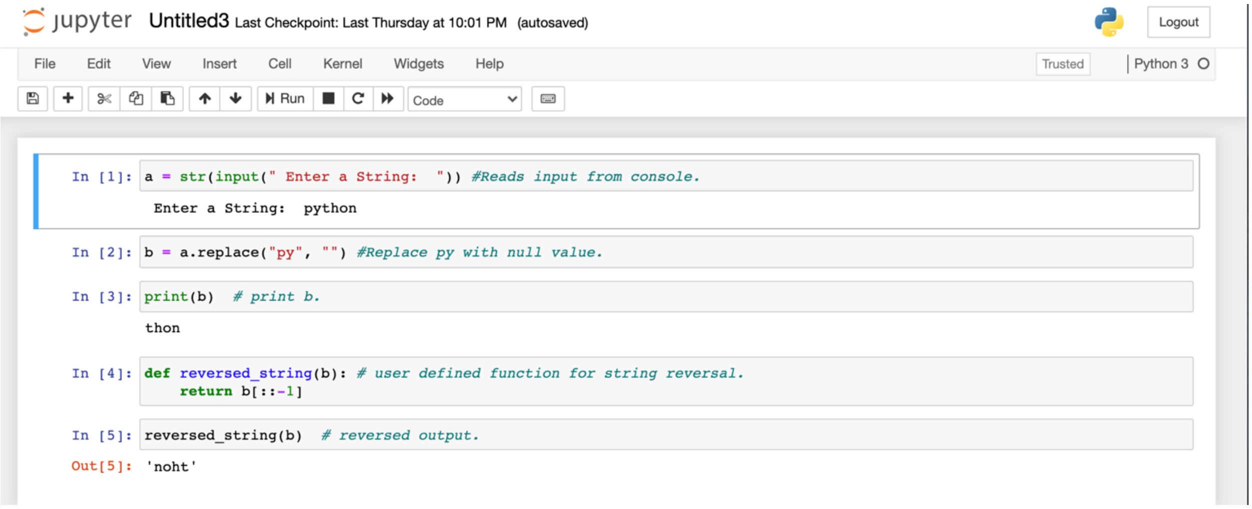
1. Differences between Python 2.x and 3.x

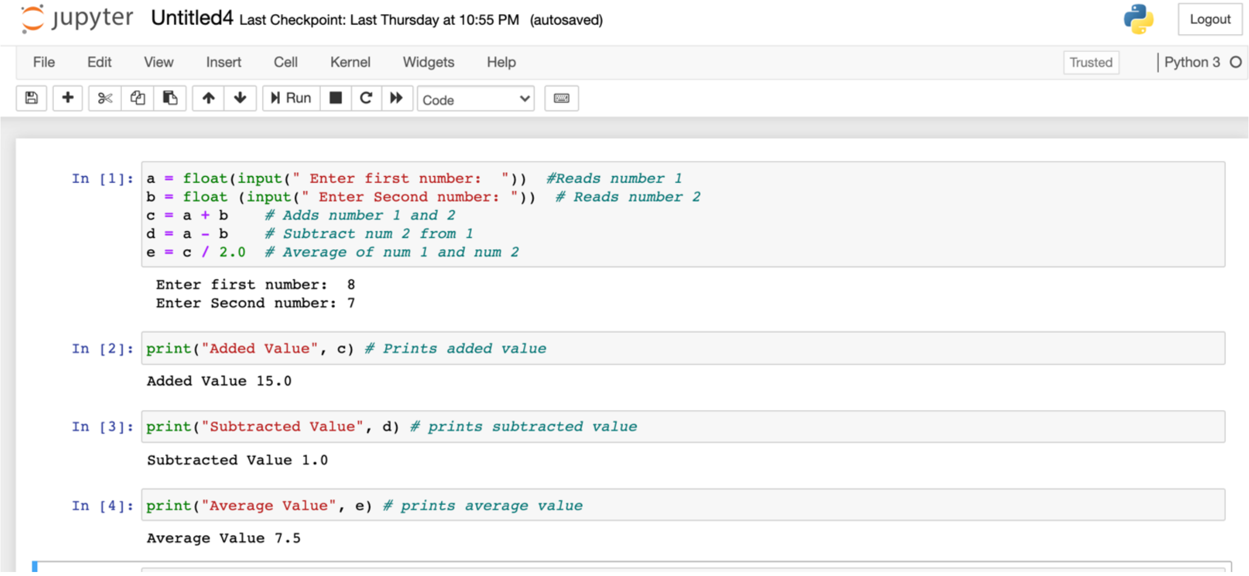
Python 2.x	Python 3.x
1. It doesn’t have improved integer division Eg : 5/2 = 2	It has improved integer division Eg : 5/2 = 2.5
2. It has print statement. Eg: Print “hello”	It has print function Eg : Print(“hello”)
3. Strings are stored as ASCII by default	Text Strings are Stored as Unicode by default
4. Xrange is used in 2.x	Xrange is not defined in 3.x instead we use Range
5. Error handling is not done	Error handling is doneaa

Q 2.1



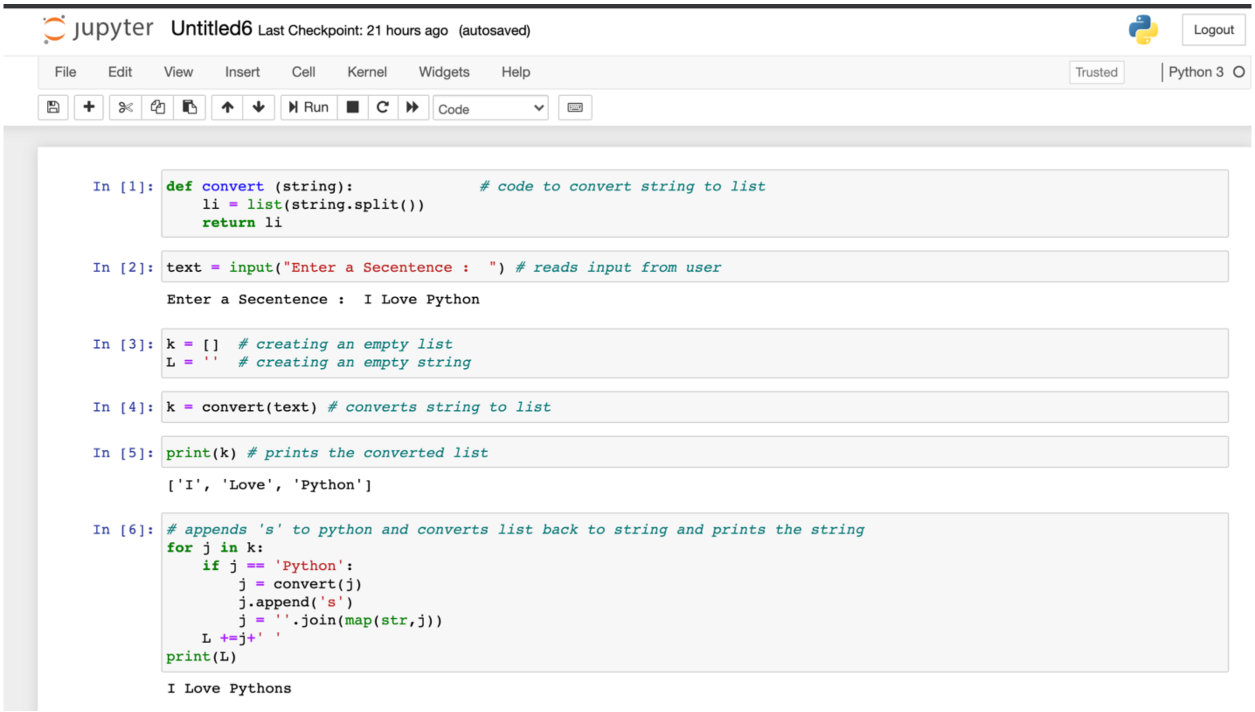
```
In [1]: a = str(input(" Enter a String:  ")) #Reads input from console.

         Enter a String:  python

In [2]: b = a.replace("py", "") #Replace py with null value.

In [3]: print(b)  # print b.

        thon

In [4]: def reversed_string(b): # user defined function for string reversal.
            return b[::-1]

In [5]: reversed_string(b)  # reversed output.

Out[5]: 'noht'
```

Q . 2.2



```
In [1]: a = float(input(" Enter first number:  "))  #Reads number 1
        b = float (input(" Enter Second number: "))  # Reads number 2
        c = a + b    # Adds number 1 and 2
        d = a - b    # Subtract num 2 from 1
        e = c / 2.0  # Average of num 1 and num 2

         Enter first number:  8
         Enter Second number: 7

In [2]: print("Added Value", c) # Prints added value

        Added Value 15.0

In [3]: print("Subtracted Value", d) # prints subtracted value

        Subtracted Value 1.0

In [4]: print("Average Value", e) # prints average value

        Average Value 7.5
```

Q. 3



```
In [1]: def convert (string):            # code to convert string to list
            li = list(string.split())
            return li

In [2]: text = input("Enter a Secentence :  ") # reads input from user

        Enter a Secentence :  I Love Python

In [3]: k = []  # creating an empty list
        L = ''  # creating an empty string

In [4]: k = convert(text) # converts string to list

In [5]: print(k) # prints the converted list

        ['I', 'Love', 'Python']

In [6]: # appends 's' to python and converts list back to string and prints the string
        for j in k:
            if j == 'Python':
                j = convert(j)
                j.append('s')
                j = ''.join(map(str,j))
            L +=j+' '
        print(L)

        I Love Pythons
```