CString manipulation – Understanding Terms:

1. Complete the table below:

|  |  |  |
| --- | --- | --- |
| Term | What does it mean? | Example |
| Concatenate | Joining string together | x = "Python is " y = "awesome" z = x + y  print(z)  ---------  Python is awesome |
| Casting | Changing data type | N = 24  Print(str(N))  ---------  “24” |
| Assigning String to a variable | Naming a variable | Age = “24”  Print(age)  ---------  24 |
| String Slicing | Selecting a group of characters in the string | N = “Goodmorning”  Print (N[0:4])  ---------  Good |
| String indexing | Assigning a number, the placement of the character in string | N = “Goodmorning”  Print(N[4])  ---------  m |
| String Length | The length of the string | N = “hello”  print (Len(N))  ---------  5 |

2. The following code is given to you:

**Var = “Abid”**

**print(Var)**

**print(“Var”)**

What is the difference between line 2 and line 3?

In line 2, Abid will be printed as it is printing the variable Var however in line 3 they are printing Var since they wrote it as a string and so isn’t a variable any more.

3. The following code is given to you:

**num1 = “3”**

**num2 = 3**

**if num1 == num2:**

**print(“they are equal”)**

**else:**

**print(“they are NOT equal”)**

(i) what is the output of the code above?

They are NOT equal

(ii) explain your answer by giving appropriate reason.

This is because num2 has a numerical value whereas num1 is a string and doesn’t have a numerical value.

4.

var = “Programming”

var = var.upper()

print(var)

print(len(var))

write down the outputs from the program above?

PROGRAMMING

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5.

Num = “3”

Num2 = 6

Num3 = float(Num) + Num2

print(Num3)

print(int(Num3))

write the outputs from the above code.

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Then explain the difference between the output from line 4 and line 5.

Line 4 prints the number as a float (decimals) always and then prints again as an integer (whole number)

6.

something = 1234

print(len(something))

The above code has an error. Find and explain the error.

The variable something is an int data type and the Len() command can only be used on strings

7. Write a program to take an input from a user as a number, then squares the number, then prints the number of digits of the squared number

Example:

The user inputs 11

The square of 11 is 121

The program will output 3 digits.

print("input a number to square")

num1 = float(input())  
num2 = num1\*\*2  
print(num2)