

## EXPERIMENT NO. - 03

**AIM:** Edit/compile/run a program to initialize the string “hello world!” to a variable Str1 and convert the string into uppercase.

### THEORY:

#### Python String upper() method

The Python string **upper()** method is used to convert all the lowercase characters present in a string into uppercase. However, if there are elements in the string that are already uppercased, the method will skip through those elements.

The upper() method can be used in applications where case-sensitivity is not considered. It works cohesively with the lower() method; where the string is converted into lowercased letters.

**Note** – This method will not show affect any non-casebased characters like digits and symbols.

#### Syntax

Following is the syntax for Python String **upper()** method –

str.upper()

#### Parameters

This method does not accept any parameters.

#### Return Value

This method returns a copy of the string in which all case-based characters have been uppercased.

#### Example

If the given string contains all lowercased letters, the method will return the string with all uppercased letters.

The following example shows the usage of Python String upper() method. We will create a string containing all lowercase letters, say "this is string example". The upper() method is called on this string and the return value obtained will be the uppercased string of the input.

```
str = "this is string example";  
print(str.upper())
```

When we run above program, it produces following result –

THIS IS STRING EXAMPLE

#### Example

If the given string contains all uppercased letters, the method will return the original string.

In this example, we will create a string containing all uppercase letters, "THIS IS STRING EXAMPLE". The upper() method is called on this string and the return value will be the original string.

```
str = "THIS IS STRING EXAMPLE";  
print(str.upper())
```

When we run above program, it produces following result –

## THIS IS STRING EXAMPLE

### Example

Suppose the given string contains digits or symbols, the upper() method will not throw an error but returns the original string.

In the following example, a string "This is a digit/symbol string: 781261&\*(\*&&", containing digits and symbols is created. The upper() method is invoked on this input string as follows –

```
str = "This is a digit/symbol string: 781261&*(*&&";  
print(str.upper())
```

On executing the above program, the output will be displayed as given below –

THIS IS A DIGIT/SYMBOL STRING: 781261&\*(\*&&

### Example

In a non case sensitive environment, two strings are compared to see if they are equal using the upper() method. The return value will be either true or false.

In this example program, we take two input strings, "string example", "STRING example". Then, we call the upper() method on both these strings. Using the conditional statements, we check if both strings are equal after they are uppercased. The result is printed for either case.

```
str1 = "string example"  
str2 = "STRING example"  
if(str1.lower() == str2.lower()):  
    print("Both strings are equal")  
else:  
    print("Both strings are not equal")
```

The output for the program above is displayed as –

Both strings are equal

### PROGRAM:

The `upper()` method converts all lowercase characters in a string into uppercase characters and returns it.

### Example

```
message = 'python is fun'  
  
# convert message to uppercase  
print(message.upper())  
  
# Output: PYTHON IS FUN
```

### upper() Return Value

`upper()` method returns the uppercase string from the given string. It converts all lowercase characters to uppercase.

If no lowercase characters exist, it returns the original string.

### Example 1: Convert a string to uppercase

```
# example string
string = "this should be uppercase!"
print(string.upper())

# string with numbers
# all alphabets should be lowercase
string = "Th!s Sh0uLd B3 uPp3rCas3!"
print(string.upper())
```

#### Output

```
THIS SHOULD BE UPPERCASE!
TH!S SH0ULD B3 UPP3RCAS3!
```

### Example 2: How upper() is used in a program?

```
# first string
firstString = "python is awesome!"

# second string
secondString = "PyThOn Is AwEsOmE!"

if(firstString.upper() == secondString.upper()):

    print("The strings are same.")
else:
    print("The strings are not same.")
```

#### Output

```
The strings are same.
```

**Note:** If you want to convert to lowercase string, use [lower\(\)](#). You can also use [swapcase\(\)](#) to swap between lowercase to uppercase.

**Conclusion:** Hence, we have successfully studied about initializing the string “hello world!” to a variable Str1 (or any String) and Converted the string into uppercase.