IT TOOLS PRACTICAL 07

IMPLEMENTING CODING PRACTICES IN PYTHON USING PEP8

PEP8 is a style guide for python code. PEP stands for python Enhancement Proposal and they describe and document the way python language evolves. It is a document that describes new features proposed for python and document aspects of python like design and style. It promotes a very readable and eye-pleasing coding style.

Something to keep in mind are:

1. Use 4-Space indentation and no tabs.
   EXAMPLE:

```
# Aligned with opening delimiter.
grow = function_name(variable_one, variable_two,
                     variable_three, variable_four)
# First line contains no argument. Second line onwards
# more indentation included to distinguish this from
# the rest.
def function_name(
        variable_one, variable_two, variable_three,
        variable_four):
    print(variable_one)
```

2. Use docstrings: There are both single and multi-line docstrings that can be used In python. However, the single line comment fits in one line, triple quotes are used in both cases. These are used to define a particular program or define a particular function.
   EXAMPLE:

```
"""This is single line docstring"""
"""This is
a
multiline comment"""
```

3. Wrap lines so they don't exceed 79 characters: The python standard library is conservative and requires limiting to 79 characters. The lines can be wrapped using parenthesis, brackets, braces. They should be used in preference to backslashes
   EXAMPLE:

```
with open('/path/from/where/you/want/to/read/file') as file_one, \
    open('/path/where/you/want/the/file/to/be/written', 'w') as file_two:
    file_two.write(file_one.read())
```

4. While naming the function of methods always use self for the first argument.
   If the function argument name matches with reserved words then it can be written with a trailing comma.
   EXAMPLE:

```
# Python program to find the
# factorial of a number provided by the user.

# change the value for a different result
```

5. Factorial code using pep8
   EXAMPLE:

```
num = 7

# uncomment to take input from the user
#num = int(input("Enter a number: "))

factorial = 1

# check if the number is negative, positive or zero
if num < 0:
   print("Sorry, factorial does not exist for negative numbers")
elif num == 0:
   print("The factorial of 0 is 1")
else:
   for i in range(1,num + 1):
      factorial = factorial*i

print("The factorial of",num,"is",factorial)
```