**In-Class Exercise**

1. **State differences between Python 2 and Python 3 version. Write a Python program to get the Python version you are using.**

**Differences are:**

|  |  |
| --- | --- |
| **Python 2** | **Python 3** |
| Syntax of print is print “Example” | Syntax of print is print(“Example”) |
| We can use 3rd party libraries in this version | We cannot use 3rd party libraries in this version. Limited support of modules |
| New features are not implemented | New features are implemented in this version |
| Better documentation available | Documentation is not great in this version |
| No byte type | 2 Byte type classes are available |
| xrange() is available to create an iterable object and is faster than python 3 | xrange() is not available anymore and replaced by range() which is slower than python 2 |
| No need to use “as” to handle exceptions | Need to use “as” to handle exceptions |
| For loop variables leak | For loop variable don’t leak anymore |
| It doesn’t always return float output during division with integers | It always returns float output during division with integers |

**Program:**

Import sys to get full details of python version. If we import platform then it will print just version number of python.

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**Output:**

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1. **Write a python program to**
2. **Take the user first name and last name and then print it in reverse order**

**Program:**

We take first name and last name from user and reverse the whole string and print it. we use loop to iterate through the whole string and then print it in reverse order

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**Output:**

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1. **To take two numbers from user and find their quotient and remainder. Print it**.

*Sample input:*

Enter First Number: 11

Enter Second Number : 2

*Sample output:*

Quotient is 5 and remainder is 1.

**Program:**

We take two numbers from user and covert them into integers to perform division to find quotient and remainder. We have to use math.floor() as division always return a float value.

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**Output:**

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1. **Write a python program to**

**This is a number guess exercise. First pick a random digit via program i.e 0,1,2,3,4,5,6,7,8,9**

**Ask the user to guess the digit randomly picked by your program. Then print whether the number guess by the user is perfect or below the random number or above the random number. Also your program should explain the rules of this number guess game to the user.**

\*\*\* *use random module. You need to use import statement here*.

Suppose the digit generated by program is 8

*Sample input:*

Guess the digit: 7

*Sample output:*

Your answer is low than required

*Sample input:*

Guess the digit: 8

*Sample output:*

Your answer is PERFECT!! Congratulations!!

*Sample input:*

Guess the digit: 9

*Sample output:*

Your answer is high than required

**Program:**

Used randint to return a random number between 0 and 9 including both.

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**Output:**

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