1)Differences between Python – 2.x and Python – 3.0:

| **Basis of comparison** | **Python 3** | **Python 2** |
| --- | --- | --- |
| Release Date | 2008 | 2000 |
| Function print | print "hello" | print("hello") |
| Division of Integers | Whenever two integers are divided, you get a float value | When two integers are divided, you always provide integer value. |
| Unicode | In Python 3, default storing of strings is Unicode. | To store Unicode string value, you require to define them with "u". |
| Syntax | The syntax is simpler and easily understandable. | The syntax of Python 2 was comparatively difficult to understand. |
|  |  |  |  |
|  |  |  |  |
| Exceptions | It should be enclosed in parenthesis. | It should be enclosed in notations. |
| Leak of variables | The value of variables never changes. | The value of the global variable will change while using it inside for-loop. |
| Backward compatibility | Not difficult to port python 2 to python 3 but it is never reliable. | Python version 3 is not backwardly compatible with Python 2. |
| Library | Many recent developers are creating libraries which you can only use with Python 3. | Many older libraries created for Python 2 is not forward-compatible. |

2)Python Editor’s and Tools used for different domain:

->Editors:

PyCharm

### Spyder

### Pydev

### Idle

### Wing

Python Tools for ML:

1.Tensorflow

2.Numpy

3.Keras

4.Pandas

Python Tools for Web Development:

1.Django

2.Flask

3.CherryPie

Python Tools for Gaming:

1.Pygame

2.Pykyra

3.Pyglet