GETTING STARTED WITH PYTHONLANGUAGE

Computing

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Section 1.1: Getting StartedPython is a widely used high-level programming language for general-purpose programming, created by Guido vanRossum and first released in 1991. Python features a dynamic type system and automatic memory managementand supports multiple programming paradigms, including object-oriented, imperative, functional programming,and procedural styles. It has a large and comprehensive standard library.Two major versions of Python are currently in active use:Python 3.x is the current version and is under active development.Python 2.x is the legacy version and will receive only security updates until 2020. No new features will beimplemented. Note that many projects still use Python 2, although migrating to Python 3 is getting easier.You can download and install either version of Python here. See Python 3 vs. Python 2 for a comparison betweenthem. In addition, some third-parties offer re-packaged versions of Python that add commonly used libraries andother features to ease setup for common use cases, such as math, data analysis or scientific use. See the list at theofficial site.Verify if Python is installedTo confirm that Python was installed correctly, you can verify that by running the following command in yourfavorite terminal (If you are using Windows OS, you need to add path of python to the environment variable beforeusing it in command prompt):$ python --version GoalKicker.com – Python® Notes for Professionals3Python 3.xVersion ? 3.0If you have Python 3 installed, and it is your default version (see Troubleshooting for more details) you should seesomething like this:$ python --versionPython 3.6.0Python 2.xVersion ? 2.7If you have Python 2 installed, and it is your default version (see Troubleshooting for more details) you should seesomething like this:$ python --versionPython 2.7.13If you have installed Python 3, but $ python --version outputs a Python 2 version, you also have Python 2installed. This is often the case on MacOS, and many Linux distributions. Use $ python3 instead to explicitly use thePython 3 interpreter.Hello, World in Python using IDLEIDLE is a simple editor for Python, that comes bundled with Python.How to create Hello, World program in

IDLEOpen IDLE on your system of choice.In older versions of Windows, it can be found at All Programs under the Windows menu.In Windows 8+, search for IDLE or find it in the apps that are present in your system.On Unix-based (including Mac) systems you can open it from the shell by typing $ idlepython_file.py.It will open a shell with options along the top.In the shell, there is a prompt of three right angle brackets:>>>Now write the following code in the prompt:>>>print("Hello, World")Hit Enter .>>>print("Hello, World")Hello, WorldHello World Python fileCreate a new file hello.py that contains the following line:Python 3.xVersion ? 3.0print('Hello, World')Python 2.xVersion ? 2.6You can use the Python 3 print function in Python 2 with the following import statement: GoalKicker.com – Python® Notes for Professionals4from__future__import print_functionPython 2 has a number of functionalities that can be optionally imported from Python 3 using the __future__module, as discussed here.Python 2.xVersion ? 2.7If using Python 2, you may also type the line below. Note that this is not valid in Python 3 and thus notrecommended because it reduces cross-version code compatibility.print'Hello, World'In your terminal, navigate to the directory containing the file hello.py.Type python hello.py, then hit the Enter key.$ python hello.pyHello, WorldYou should see Hello, World printed to the console.You can also substitute hello.py with the path to your file. For example, if you have the file in your home directoryand your user is "user" on Linux, you can type python /home/user/hello.py.Launch an interactive Python shell