

Jython Cheat Sheet by azamaryk via cheatography.com/19851/cs/2797/

Top-Down Design

Breaking down of a system to gain insight to its compositional sub-systems.

Bottom-Down Design

Piecing together of systems to give rise to more complex systems, this making the original sub-systems of the emergent system.

Black-Box

Device, system or object which can be viewed in terms of its input, output and transfer characteristics without knowing what is inside.

Glass-Box

Opposite of Black-Box. Inner components or logic are available for inspection.

Triple Quotes

Use Triple quotes when a strings spans multiple lines.

String Methods (string.method)

capitalize

startwith

endswith

find, rfind

upper, lower

swapcase

title

isalpha, isdigit

Functions with Strings and Lists

len(aString),(aList) max, min(aString) max, min(aList)

List Methods (list.method)

append remove sort

reverse count

Strings are immutable; lists are mutable drt()

Reading into a Variable

file = open("p rac tic e.t " wt") wt is writing and rt is reading

makes a new line

file.c lose()

data = file.r ead() Now you can analog signal of a telephone

use string methods on data

data.m ethod()

Modules

The OS Module offers a number of powerful capabilities for dealing with files work. e.g., renaming files, finding out when a file ethernet was last modified, and so on.

typing:

import os

The function that knows about directories is listdir(), used as os.lis tdir()

listdir takes a path to a directory as input.

Random Module

import random

for i in range(1,10): print random.ra ndom()

math knows about sin() and

Opening Files for Reading and Writing and

Modem

file.w rit e("a string "\n) $\frac{1}{n}$. modulation and demodulation, for example, between the digital data of a computer and the

line.

Packet

formatted unit of data carried by a packet mode computer

Internet

a system for connecting a We start accessing the OS module by number of computer systems to form a local area network, with protocols to control the passing of information and to avoid simultaneous transmission by two or more systems.

The Internet is a global system of interconnected computer networks that use the standard Internet protocol suite (TCP/IP) to link several billion devices worldwide.

ISD

Internet Service Provider

IP Address

a unique string of numbers separated by periods that identifies each computer using the Internet Protocol to communicate over a network.

Domain Names

the part of a network address that identifies it as belonging to a particular domain.

POP

Post Office Protocol Used to retrieve email from a mail server

SMTP

Simple Mail Transfer Protocol Internet standard for electronic mail (e-mail) transmission

Big O Estimates

Array Access O(1)(Selecting a character from a string) Binary Search of a O(log Sorted Collection

Linear Search O(n)

ub2n)



By azamaryk

cheatography.com/azamaryk/

Published 4th November, 2014. Last updated 12th May, 2016. Page 1 of 2.

Sponsored by Readable.com

Measure your website readability!

https://readable.com



Jython Cheat Sheet by azamaryk via cheatography.com/19851/cs/2797/

Big O Estimates (cont) Better Sorts (Quick O(n Sort, Merge Sort) log n) Slower Sorts (Bubble, O(n^2) Insertion, Selection) Traveling Salesmen O(n!) (EX of NP-Complete problem) (Intractable

Halting Problem - Unsolvable (Proven by Alan Turing, 1936)

Problem)

FTP

The File Transfer Protocol standard network protocol used to transfer computer files from one host to another host over a TCP-based network, such as the Internet

URL(Web Address when used with HTTP)

Uniform Resource Locator Specific character string that constitutes a reference to a resource

HTTP

Hypertext Transfer Protocol Application protocol for distributed, collaborative, hypermedia information systems. HTTP is the foundation of data communication for the World Wide Web

HTML

Hypertext Markup Language Standard language in the making of a web page

Sound to Text def soundT oTe xt (sou nd, KIDOGTAMRE HTML>

file = open(f ile nam e, "w <html> for s in getSam ple s(s ound head>

First: Make sure that all red values are even.

file.w rit e(s tr(get Sam tile The Simplest Possible Web Page</title> file.c lose()

Steganography

100.0):

Second: For every pixel where the message picture is black. /h1> add one to the red value at the corresponding x,y. This is a paragraph in the for pxl in getPix els (or iginal): if (getRe d(pxl) % 2) == 1: <img src="mediasources/flowsetRed(pxl , getRed (pxl) for x in range(0, getWid th(ori ginal)): $\frac{1}{\text{html}}$ msgPxl = getPix el(msgPic $\texttt{origPxl} = \texttt{getPix} \ \texttt{el(} \ \texttt{ori} \ \ \texttt{ginal} \\ \textbf{computer,} \\ \textbf{especially one that is} \\$ if (dista nce (ge tCo lor

Simple WebPage

er1.jpg"/> </body>

'Axstructured set of data held in a (maccessible) in various wavs.

setRed (or igPxl , getRed (Arreignest for Information from a database.

SOL

Structured Query Language Special-purpose programming language designed for managing data held in a relational database management system.

Hexadecimal is base 16

0,1,2,3,4,5,6,7,8,9,A,B,-C,D,E,F,10 (16 base 10)

#FF0000 is Red

255 for red (FF), 0 for green, 0

for blue

#0000FF is Blue

0 for red, 0 for green, 255 for

blue

#000000 is black

0 for red, 0 for green, 0 for blue

#FFFFFF is white

255 for red, 255 for green, 255

for blue

Jython is first translated into Java, which is both compiled and interpreted, every time a program is run. Thus one reason Photoshop operations are so much faster than our picture functions is that Photoshop's code has already been compiled and is ready to run at the click of a button.

There are some practical issues that determine the relative speeds of different computers. Some are: the clock speed of the processor, the number of cores of the processor, the amount of cache memory on board the processor (or nearby), the amount and speed of RAM, the size and speed of the hard disk, the system bus width and speed.

