

Glossary

IT Automation with Python



Terms and definitions from Course 2

A

Absolute path: A full path to the resource in the file system

Alteration: RegEx that matches any one of the alternatives separated by the pipe symbol

Automatic testing: A process where software checks itself for errors and confirms that it works correctly

B

Backreference: This is applied when using `re.sub()` to substitute the value of a capture group into the output

Bash: The most commonly used shell on Linux

Bash script: A script that contains multiple commands

Black-box tests: A test where there is an awareness of what the program is supposed to do but not how it does it

C

Character classes: These are written inside square brackets and let us list the characters we want to match inside of those brackets

Character ranges: Ranges used to match a single character against a set of possibilities

Comma separated values (CSV): A very common data format used to store data as segment of text separated by commas

Command line arguments: Inputs provided to a program when running it from the command line

Compiled or compiled language: Supportable code that can be executed on different platforms

Cut: A command that can split and take only bits of each line using spaces

D

Dialects: Rules that define how a CSV file is structured

E

Edge cases: Inputs to code that produce unexpected results, found at the extreme ends of the ranges of input

Environment variables: Settings and data stored outside a program that can be accessed by it to alter how the program behaves in a particular environment

F

File systems: Methods and structures used to organize and control how data is stored and accessed

G

Globs: Characters that create list of files, like the star and question mark

grep: An especially easy to use yet extremely powerful tool for applying RegExes

I

Input / Output (I/O): These streams are the basic mechanism for performing input and output operations in your programs

Integrated Development Environment (IDE): A code editor with extra capabilities to simplify script writing

Interpreter or interpreted language: An intermediary program used to execute the instructions specified in the code

K

Kernel: The main core of an operating system that talks directly to hardware and manages the system's resource

L

Linux: An open source operating system where the software is free to share, modify, and distribute

Log files: Log files are records or text files that store a history of events, actions, or errors generated by a computer system, software, or application for diagnostic, troubleshooting, or auditing purposes

Lookahead: RegEx that matches a pattern only if it's followed by another pattern

M

Mac OS: Operating system developed by Apple

Mode: The format controlling what you can do with a recently opened file

O

Operating system (OS): Software that manages everything that goes on in the computer, composed of two main parts: the kernel and the user space

P

Pipes: A process of connecting the output of one program to the input of another

Piping: A process of connecting multiple scripts, commands, or other programs together into a data processing pipeline

Pytest: A powerful Python testing tool that assists programmers in writing more effective and stable programs

Q

Qwiklabs: An online learning environment or virtual machine to simulate real-world scenarios

R

Reader objects: Object that represents an element or entity within a scene that needs to be rendered to the screen

Redirection: A process of sending a stream to a different destination

Regular expression: A search query for text that's expressed by string pattern, also known as RegEx or RegExp

Relative path: A portion of a path to show where the resource is located in relation to the current working directory

S

Signals: Tokens delivered to running processes to indicate a desired action

Software testing: A process of evaluating computer code to determine whether or not it does what is expected

Standard input stream commonly (STDIN): A channel between a program and a source of input

Standard output stream (STDOUT): A pathway between a program and a target of output, like a display

Standard error (STDERR): This displays output like standard out, but is used specifically as a channel to show error messages and diagnostics from the program

Shell: The application that reads and executes all commands

Subprocesses: A process to call and run other applications from within Python, including other Python scripts

T

Test case: This is the individual unit of testing that looks for a specific response to a set of inputs

Test fixture: This prepared to perform one or more tests

Test suite: This is used to compile tests that should be executed together

Test runner: This runs the test and provides developers with the outcome's data

U

unittest: A set of Python tools to construct and run unit tests

Unit tests: A test to verify that small isolated parts of a program work correctly

User space: Everything outside of the kernel that users interact with directly

V

Virtual environment: A tool that allows you to create isolated environments for your Python projects

Virtual machine (VM): A computer simulated through software

W

White-box test: A test where test creator knows how the code works and can write test cases that use the understanding to make sure it performs as expected

Wildcard: A character that can match more than one character

Windows OS: Operating system developed by Microsoft

Writer objects: The capability to write data to a CSV file