EPAM Python Software Engineer Training

Lesson 2: Files in Python

Contents

1 Course

1.1 String types

In python files are opened as simple as using a builtin *open* function. Inside an *os* module there are many useful routines to work with files, in particular, a *path* class which contains functions to operate on file paths.

A *sys* module contains useful attributes pointing to standard input/output file objects, application arguments, imported modules, environment variables.

2 Tasks

2.1 Hello World

Write a simple application that writes a string `Hello world` into a file specified as a command-line argument.

2.2 Hello John

Write a program that reads a user name from standard input and prints `Hello <name>` input a standard output.

2.3 Pipe

Write a program that redirects its standard input into a standard output line by line (like a shell pipe operator).

2.4 List directory

Write a program that lists all file names, their permissions, ownership, last modified date in a specified directory (like an `ls -l` shell command). If no directory is specified as the first (and only) command-line argument than a current directory shall be listed. If more than one argument is passed or the specified directory does not exist and application shall report to standard error and return an error status code.

2.5 Statistics

Write a program that prints some statistics about itself to standard output: a path to executable, command line arguments, imported module names and corresponding file paths, environment variables.

2.6 Seek

Write a program that updates a current date and time in a file's first line (stored in the first 50 characters). A file shall be specified as a first argument. Other file content than first 50 characters shall not be modified.