Python Training.....

-- Jeetendra Bhattad

Agenda

- Opening file

- Reading, Writing & Seeking

- Path manipulation functions

FILE

- handle = open(<name of file>, <mode in which to open>)

    – Mode can be :

        - "r" – read
        - "w" – write
        - "a" – append
        - "b" - binary files
        - Add '+' to the mode to allow simultaneous reading & writing

- API's :- close, fileno, flush, isatty, next, read([size]), readline, readlines, seek(offset[,whence (1 – current, 2 – end, 0 – begining]), tell, truncate, write, writelines

- Data descriptors:- closed, mode, name

- In 3.x onwards open file in "b" mode as well for seeking from current position or end

Assignments

1. Write a function `input_stats` that accepts a file name as a parameter and that reports the longest line in the file.

2. Write code to read a file of petrol prices in Maharashtra, Goa & Karnataka:

```
Jan 2015 81 67 84

Feb 2015 79 66 82

Mar 2015 78 65 81

Apr 2015 77 64 80

...
```

Output the average petrol price for each state to an output file named petrol_avg_out`.txt`.

3. Read alternate 10-10 characters of file

4. Write a program to parse config file.

os.path – Path Manipulation

- os.path – for path manipulations
    - abspath – converts to absoluete path
    - basename – last component name
    - commonprefix
    - dirname
    - exists
    - expandvars
    - getatime, getctime, getmtime, getsize
    - isabs, isdir, isfile, islink - symbolic, ismount
    - join
    - normcase (for windows)
    - normpath (//)
    - realpath : canonical path of the specified filename, eliminating any symbolic links
    - samefile – Ture if 2 pathnames referene the same actual file
    - split – returns tuple (head, taile)
    - splitext
    - walk : directory tree walk with callback function

Other File Handling Modules

- fileinput

- stat

- filecmp

- shutil

- tempfile