daylio-parser

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staticf0x

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CHAPTER

ONE

INSTALLATION

Via pip:

```
pip3 install --user daylio-parser
```

Via Pipenv:

```
pipenv install daylio-parser
```

Via Poetry:

```
poetry add daylio-parser
```

CHAPTER

TWO

CONFIG

daylio-parser comes with a default config that works for the default Daylio setup after installing the app. That is, there's just 5 moods, called `awful, bad, meh, good, rad`.

Each mood has its class:

class Mood

name: str

Name of the mood, must correspond with mood name in the exported CSV.

level: int

Assigned numeral level for the mood (higher = better mood). The allowed levels are 1 to 5.

color: str

Any hex color.

boundaries: Tuple[float, float]

A tuple with lower and upper bound for the mood. Any average mood that falls withing these boundaries will be colored using the *Mood.color*.

The whole mood config for your app will be constructed using the *MoodConfig* class.

class MoodConfig(*mood_list=None*, *color_palette=None*)

Creates a config with mood_list. If the mood list isn't provided, `DEFAULT_MOODS` will be used. All moods are automatically colored using `color_palette` and boundaries are also calculated. Each boundary is exactly 1 in size, with the first one and the last one being only 0.5 in size.

Parameters

- **mood_list** (*List[Tuple[int, str]]*) – A list of moods with (level, name)
- **color_palette** (*List[str]*) – A list of colors (hex values or common names)

from_list(*mood_list*, *color_palette=None*) → None

Updates the config with a new list of moods.

Parameters

- **mood_list** (*List[Tuple[str, str]]*) – A list of moods with (level, name)
- **color_palette** (*List[str]*) – A list of colors (hex values or common names)

static from_file(*path*) → *MoodConfig*

Loads the MoodConfig from a JSON file. The file structure is:

```
{
    "moods": [(level, name), ...],
    "colors": [value, ...],
}
```

get(*mood_name*) → *Mood*

Returns a *Mood* by its name.

Raises *MoodNotFound* if the mood_name doesn't exist.

Parameters **mood_name** (*str*) – Mood name

exception MoodNotFound

Raised in cases when attempting to retrieve a non-existing *Mood*.

CHAPTER

THREE

PARSER

class Entry

A class that holds data for an entry in the diary. One day can have multiple entries.

datetime: `datetime.datetime`

mood: *Mood*

activities: `List[str]`

notes: `str`

class Parser(*config=None*)

Parser for the CSV file. If config is not provided, a default one will be created.

Parameters **config** (`MoodConfig`) – MoodConfig for the parser

load_csv(*path*) → List[*Entry*]

Load entries from a CSV file.

Parameters **path** (*str*) – Path to the CSV file

load_from_buffer(*f*) → List[*Entry*]

Load entries from a file like object containing CSV data.

Parameters **f** – A file-like object

CHAPTER

FOUR

PLOTDATA

class PlotData(*entries*, *config=None*)

A class that provides some data for easier plotting.

Parameters

- **entries** (*List[Entry]*) – A list of parsed entries
- **config** (MoodConfig) – MoodConfig for the parser (if none is provided, a default one will be created)

split_into_bands(*moods*) → numpy.ma.MaskedArray

Parameters **moods** (*numpy.ndarray*) – An array of mood values

Return type numpy.ma.MaskedArray

Splits input moods into bands, given their boundaries. See *Mood.boundaries*.

interpolate(*avg_moods=None*, *interpolate_steps=360*)

Interpolates moods to make a smooth chart. Returns an array of dates and an array of moods.

Parameters

- **avg_moods** – Average moods to iterate over. If not provided, these are generated by *Stats.average_moods()*
- **interpolate_steps** (*int*) – Number of steps for one day (midnight to midnight)

Return type Tuple[numpy.ndarray, numpy.ndarray]

CHAPTER

FIVE

STATS

class MoodPeriod

This class represents a period of moods.

start_date: datetime.date

end_date: datetime.date

duration: int

Length of the period as a number of days.

avg_mood: float

Average mood for the whole period.

class Stats(*entries*, *config=None*)

A class for computing various stats from the entries.

Parameters

- **entries** (*List[Entry]*) – A list of parsed entries
- **config** (MoodConfig) – MoodConfig for the parser (if none is provided, a default one will be created)

average_moods() → List[Tuple[datetime.date, float]]

Computes average mood for each day.

activity_moods() → Dict[str, Tuple[float, float]]

Computes average mood and standard deviation for each activity. The returned dict has mood name as a key and (mean, std) as value.

mean() → Tuple[float, float]

Returns (mean, std) for all entries.

rolling_mean(*N=5*)

Computes a rolling mean for the entries.

Parameters **N** (*int*) – Window size

find_high_periods(*threshold=4*, *min_duration=4*) → List[*MoodPeriod*]

Find all periods of high moods.

Parameters

- **threshold** (*float*) – Find moods higher than this
- **min_duration** (*int*) – Find periods longer than this

find_low_periods(*threshold=3*, *min_duration=5*) → List[*MoodPeriod*]

Find all periods of low moods.

Parameters

- **threshold** (*float*) – Find moods higher than this
- **min_duration** (*int*) – Find periods longer than this

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