Behaviour Risk Model Algorithm (BRMA) Api
Design Doc

Input: (string)

URL: http://brma.herokuapp.com/api/v1
GET/POST parameter: gps_data
desc: set of lines where each line have exactly three fields latitude, longitude and minutes spent at that location.
sample:

{"location": [{"duration": 120, "latitude": 50.73858, "longitude": 7.07873},
{"duration": 120, "latitude": 50.737204, "longitude": 7.102983},
{"duration": 120, "latitude": 26.13, "longitude": -80.32}]}

Output: (json)

desc: JSON consisting of:

a. brma_score: the BRMA score ranging from 0 to 150
b. nimby_score: ranging from 0 to 50
c. yimby_score: ranging from 0 to 50
d. env_score: JSON consisting of:
* aqi: air quality score ranging from 0 to 12.5
* crime_score: ranging from 0 to 12.5

sample: {"brma_score": 69.25, "nimby_score": 0, "yimby_score": 50,
"environment_score": {"normalized_environment_score": 19.25,
"crime_rate": 6.375, "air_quality_index": 3.25}}

ProjectVision Error Codes:

100: `'invalid json'`
101: `'invalid value'`
102: `'missing value'`

Code Description:

repository: https://github.com/projectvision/healthapp-api2
command to run the api: *python web_api.py*
modules:

web_api: handler for get/post requests
scorer: computes nimby and yimby scores
env_scores: computes both the environment scores (aqi and crime)
crime_rate_api: interface for provide crime rates for a given lat/long

config: the yaml format file of yimby and nimby locations
requirements: list of required python libraries
templates/: containing the html
Procfile: heroku specific file for running the app
crime_rate.cc: utility script for parsing the crime date (not production relevant)
test_api: simple python script for demoing api usage.