documentdb

March 28, 2021

[13]:
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from pathlib import Path
import json
import os

from tinydb import TinyDB

current_dir = Path(os.getcwd()).absolute()
results_dir = current_dir.joinpath('results')
kv_data_dir = results_dir.joinpath('kvdb')
kv_data_dir.mkdir(parents=True, exist_ok=True)


class DocumentDB(object):
    def __init__(self, db_path):
        ## You can use the code from the previous exmaple if you would like
        people_json = kv_data_dir.joinpath('people.json')
        visited_json = kv_data_dir.joinpath('visited.json')
        sites_json = kv_data_dir.joinpath('sites.json')
        measurements_json = kv_data_dir.joinpath('measurements.json')

        self._db_path = Path(db_path)
        self._db = None
        # Load in the jsons as dicts based on Teams thread feedback
        with open('/home/jovyan/dsc650/dsc650/assignments/assignment02/results/
↪kvdb/people.json', 'r') as file:
            people_dict = json.load(file)
        with open('/home/jovyan/dsc650/dsc650/assignments/assignment02/results/
↪kvdb/visited.json', 'r') as file:
            visited_dict = json.load(file)
        with open('/home/jovyan/dsc650/dsc650/assignments/assignment02/results/
↪kvdb/sites.json', 'r') as file:
            sites_dict = json.load(file)
        with open('/home/jovyan/dsc650/dsc650/assignments/assignment02/results/
↪kvdb/measurements.json', 'r') as file:
            measurements_dict = json.load(file)
        self._load_db()
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        # Create records by people dictionary
        for people_k, people_v in people_dict.items():

            #Create a list of visits
            people_v['visits'] = []
            for visited_k, visited_v in visited_dict.items():
                for sites_k, sites_v in sites_dict.items():
                    # Matching up site_id by sites and visits. Then storing in␣
↪visited_v as the site
                    if sites_v['site_id'] == visited_v['site_id']:
                        visited_v['site'] = sites_v

                        # Create measurements list
                        visited_v['measurements'] = []
                        for measurements_k, measurements_v in measurements_dict.
↪items():
                            # Matching visit_id and person_id with measurements␣
↪and adding to measurements_v
                            if measurements_v['visit_id'] ==␣
↪visited_v['visit_id'] and measurements_v['person_id'] ==␣
↪people_v['person_id']:
                                visited_v['measurements'].append(measurements_v)
                        # If there are measurements, add it to visit using␣
↪people_v visits list
                        if len(visited_v['measurements']) != 0:
                            people_v['visits'].append(visited_v)

            # Once person record is complete add it to the db
            self._db.insert(people_v)

    def _load_db(self):
        # Added the indent and separators based off of https://tinydb.
↪readthedocs.io/en/stable/usage.html#storage-middleware
        self._db = TinyDB(self._db_path, indent=4, separators=(',', ': '))
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[14]:
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db_path = results_dir.joinpath('patient-info.json')
if db_path.exists():
    os.remove(db_path)

db = DocumentDB(db_path)
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