documentdb

September 12, 2021

```python
[41]: 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)

      def _load_json(json_path):
          with open(json_path) as f:
              return json.load(f)
```

```python
[42]: class DocumentDB(object):
          def __init__(self, db_path):
              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
              self._person_lookup = _load_json(people_json)
              self._visit_lookup = _load_json(visited_json)
              self._site_lookup = _load_json(sites_json)

              self._measurements_lookup = _load_json(measurements_json)

              self._load_db()

          def _get_site(self, site_id):
              return self._site_lookup[str(site_id)]

          def _get_measurements(self, person_id):
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```python
        measurements = []
        for values in self._measurements_lookup.values():

            measurements.extend([value for value in values if
→str(values[0]['person_id']) == str(person_id)])

        return measurements

    def _get_visit(self, visit_id):
        #visit = self._visit_lookup.get(str(visit_id))
        #print("6")

        visit = [value for key, value in self._visit_lookup.items() if key.
→find(str(visit_id), 0, len(key)) > -1][0]

        #print (self._get_site(visit[0]['site_id']))

        site = self._get_site(visit[0]['site_id'])

        visit = site
        #print(visit)
        return visit

    def _load_db(self):
        self._db = TinyDB(self._db_path)
        persons = self._person_lookup.items()
        for person_id, record in persons:
            #print(person_id, record)
            measurements = self._get_measurements(person_id)

            #print (measurements) #[{'visit_id': 619, 'person_id': 'dyer',
→'quantity': 'rad', 'reading': 9.82}]

            visit_ids = set([measurement['visit_id'] for measurement in
→measurements if "visit_id" in measurement])
            #print ("3")
            #print (visit_ids)
            visits = []
            for visit_id in visit_ids:
                visit = self._get_visit(visit_id)
                visit['measurements'] = [measurement for measurement in
→measurements if visit_id == measurement['visit_id']]
                visits.append(visit)
            visits = visits[0] if len(visits) > 0 else {}
            record['visits'] = visits
            self._db.insert(record)
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[43]: db_path = results_dir.joinpath('patient-info.json')
      if db_path.exists():
          os.remove(db_path)

      db = DocumentDB(db_path)
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