Tube Disruption Check API

1. Make sure that the following is downloaded on your system:
   - Python (v3.8.2)
   - Pip (v20.0.2)
   - Flask (v2.0.1)
   - Python libraries:
     i. requests
     ii. datetime
     iii. parsedatetime
     iv. sqlite3
2. To run the server, run: 'python3 api.py'
3. Examples of API calls:
   - Scheduling a new task:
     'curl -X POST -d "schedule_time=2021-10-06T16:00:00&lines=waterloo-city,central" http://localhost:5555/v1/tasks'
   - Get information about all tasks:
     'curl -X GET http://localhost:5555/v1/tasks'
   - Get information about a specific task:
     'curl -X GET http://localhost:5555/v1/tasks/task_id'
   - Get a task to run immediately:

     'curl -X POST -d "lines=waterloo-city,central" http://localhost:5555/v1/tasks'

   - Update/Edit a task:
   - 'curl -X PATCH -d "schedule_time=2022-06-05T17:00:00" http://localhost:5555/v1/tasks/task_id'

Limitations of the API:

- If one creates a new task with a schedule_time which has already passed, the task just gets added to the database, and the disruption data is never obtained (i.e. the task is never performed).
- If a task is deleted, its task_id can be assigned to a new task which is created.
- The API needs more thorough testing. (Testing of endpoints, and also usage of a unit testing framework so that the tests can all run automatically).
- No authentication, so if served publicly the API could be hit by anyone, and also no provisions for multiple users.

To run the unit tests:

Run 'python3 controller_tests.py'