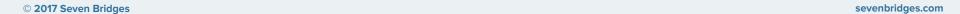


Content

- PSQL and PEP 249
- pg8000
- SevenTweets cont.

PostgreSQL and PEP 249

database



PostgreSQL

- Open source object-relational database system
- Similar to others when it comes to simple use
- https://www.postgresql.org/
- We suggest using pgAdmin GUI tool for managing postgresql database
- pgcli command line tool
- https://www.postgresql.org/download/

PEP 249

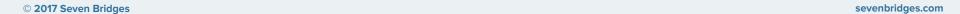
- Python Database API Specification v2.0
- defined to encourage similarity between the Python modules that are used to access databases
- https://www.python.org/dev/peps/pep-0249/
- Connection to db is made available through connection objects
 - connect (params) -> connection
 - connection Methods:
 - cursor() -> cursor
 - commit()
 - rollback()
 - close()
 - cursor Methods
 - execute()
 - fetchone()-> sequence
 - fetchall()-> sequence of sequences
 - close()
 - __iter__(), next() *** these are optional

Content

- PSQL and PEP 249
- pg8000
- SevenTweets cont.

pg8000

Python interface to the PostgreSQL database engine



pg8000

- A DB-API 2.0 compatible
- pip/conda install pg8000
- Starting point: connection = pg8000.connect(...)

pg8000

```
connection = pg8000.connect(
    user='username',
    password='pass',
    host='localhost',
    port=5432,
    database='database_name'
)
cursor = connection.cursor()

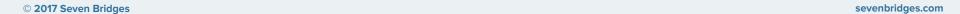
cursor.execute(
    id integer NOT NULL,
    name text NOT NULL,
    tweet text
);
    """
)
```

Content

- PSQL
- PEP 249 -- Python Database API Specification v2.0
- pg8000
- SevenTweets cont.

SevenTweets

Project specification - continuation



SevenTweets

SevenTweets is a network of mini services that should resemble twitter. Each service that will be part of SevenTweets can have different implementation but will be built to support a standardised API so that the communication between services can be possible. Every node in SevenTweets would:

- Be a separate service
- Be able to work with tweets (published message)
- Have its own identificator (username)
- Have its own local storage for tweets originating from that node
- Have to know addresses of all other nodes
- Perform notifications to other nodes when starting/shutting down

SevenTweets - homework

- Existing endpoints:
 - GET /tweets
 - GET /tweets/<id>
 - POST /tweets
 - DELETE /tweets/<id>
- New tasks:
 - Add database for storage
 - Implement handlers to use the database storage
 - Add tests

Thank you!

