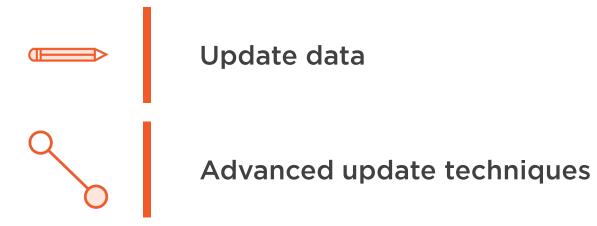
Manipulating Your Database



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Manipulating Your Database



Delete data

Delete tables



```
engine = db.create_engine('sqlite:///sqlalchemy_sqlite.db')
connection = engine.connect()
engine.execute('select * from post where Id=1').fetchone()
engine.execute('select ViewCount from post where Id=1').fetchone()
engine.execute('Update post set ViewCount = 0 where Id = 1')
```

Updating Data Using SQL

Use a SQL statement

Update the value from one column



Updating Data Using Update
Select table with update
Specify row with where
Specify values
And execute



Updating Multiple Records

Similar to one record update

- Can use a where to specify multiple records
 - But can also be missing
- Potentially dangerous if no where clause



```
my_post = my_session.query(Post).filter(Post.Id == 1).one()
my_post.Title
my_post.Title = 'Modified Question'
my_session.commit()
```

Updating an Object

Query to get an object

- Modify
- Commit
- Confirm



```
avg_views = db.select([db.func.avg(Post.ViewCount).\
    label('Average_Views')])
query = db.update(Post).values(ViewCount=avg_views)
connection_result = connection.execute(query)
```

Correlated Updates

Update uses the result of another query

- Create the query
- Update, specifying the query

Confirm



```
my_session.query(Post.Id).all()
first_post = my_session.query(Post).first()
first_post.Id
my_session.delete(me)
my_session.commit()
```

Deleting a Record

Use SQL

Use delete from session

Specify the object, and remember to commit



```
my_session.query(Post.Id).all()
my_session.query(Post).filter(Post.Id > 2).delete()
```

Deleting Multiple Records

Using query

- Specify which records

Call delete and commit

- Returns number of records affected



```
metadata = db.MetaData()
metadata.reflect(bind=engine)
metadata.tables
metadata.tables.keys()
```

Deleting a Table

Use reflect to load database information

Get table names

- Use metadata.tables



```
post_table = metadata.tables['post']
post_table.drop(bind=engine)
```

Deleting a Table

Create Table object

Use drop

- Remember to bind to your engine

Confirm



Takeaway



Update data

- SQL statements
- Using update, with where, and values
- Modify an object

Correlated updates



Takeaway



Delete data

- Use session.delete()
- Call delete() on a query

Delete tables

- Use drop() on Table object

