How to Modify Records with SQLAlchemy

What happens if you saved some bad data. For example, you typed your favorite album's title incorrectly or you got the release date wrong for that fan edition you own? Well you need to learn how to modify that record! This will actually be our jumping off point into learning SQLAlchemy queries as you need to find the record that you need to change and that means you need to write a query for it. Here's some code that shows us the way:

```
# modify_data.py
from sqlalchemy import create_engine
from sqlalchemy.orm import sessionmaker
# from table_def import Album, Artist

engine = create_engine('sqlite:///mymusic.db', echo=True)

# create a Session
Session = sessionmaker(bind=engine)
session = Session()

# querying for a record in the Artist table
res = session.query(Artist).filter(Artist.name=="Kutless").first()
print(res.name)

# changing the name
res.name = "Beach Boys"
session.commit()

# editing Album data
artist, album = session.query(Artist, Album).filter(
    Artist.id==Album.artist_id).filter(Album.title=="Thrive").first()
album.title = "Step Up to the Microphone"
session.commit()
```

Our first query goes out and looks up an Artist by name using the **filter** method. The **.first()** tells SQLAlchemy that we only want the first result. We could have used **.all()** if we thought there would be multiple results and we wanted all of them. Anyway, this query returns an Artist object that we can

manipulate. As you can see, we changed the **name** from **Kutless** to **Beach Boys** and then committed out changes.

Querying a joined table is a little bit more complicated. This time we wrote a query that queries both our tables. It filters using the Artist id AND the Album title. It returns two objects: an artist and an album. Once we have those, we can easily change the title for the album. Wasn't that easy? At this point, we should probably note that if we add stuff to the session erroneously, we can **rollback** our changes/adds/deletes by using **session.rollback()**. Speaking of deleting, let's tackle that subject!