How to Insert / Add Data to Your Tables

A database isn't very useful unless it has some data in it. In this section we'll show you how to connect to your database and add some data to the two tables. It's much easier to take a look at some code and then explain it, so let's do that!

```python
# add_data.py
import datetime
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()

# Create an artist
new_artist = Artist(name="Newsboys")

new_artist.albums = [Album(title="Read All About It",
                           release_date=datetime.date(1988,12,1),
                           publisher="Refuge", media_type="CD")]

# add more albums
more_albums = [Album(title="Hell Is for Wimps",
                     release_date=datetime.date(1990,7,31),
                     publisher="Star Song", media_type="CD"),
               Album(title="Love Liberty Disco",
                     release_date=datetime.date(1999,11,16),
                     publisher="Sparrow", media_type="CD"),
               Album(title="Thrive",
                     release_date=datetime.date(2002,3,26),
                     publisher="Sparrow", media_type="CD")]
new_artist.albums.extend(more_albums)

# Add the record to the session object
session.add(new_artist)
# commit the record the database
session.commit()

# Add several artists
session.add_all([
    Artist(name="MXPX"),
    Artist(name="Kutless"),
```

```
    Artist(name="Thousand Foot Krutch")
    ])
session.commit()
```

First we need to import our table definitions from the previous script. Then we connect to the database with our engine and create something new, the **Session** object. The **session** is our handle to the database and lets us interact with it. We use it to create, modify, and delete records and we also use sessions to query the database. Next we create an **Artist** object and add an album. You'll note that to add an album, you just create a list of **Album** objects and set the artist object's "albums" property to that list or you can extend it, as you see in the second part of the example. At the end of the script, we add three additional Artists using the **add_all**. As you have probably noticed by now, you need to use the session object's **commit** method to write the data to the database. Now it's time to turn our attention to modifying the data.