Object Relational Mappers

If you do a lot of database work, you might want to consider checking out an Object Relational Mapper (ORM). An Object Relational Mapper allows you to work with the database without using SQL itself. Some developers call it more "Pythonic" since it's not a mix of Python code and SQL. The most popular ORM in Python is SQLAlchemy.

One of the major benefits to using SQLAlchemy is that you can usually write your database code once and then if the backend changes you won't have to change any of your queries. The only thing you would need to change is he connection string. I have used SQLAlchemy to transfer a tables from one backend to another and been able to use the same code for both ends.

There are other ORMs such as SQLObject and peewee. When I first started out, I tried SQLObject, but it didn't support composite keys at that time, so I had to switch to SQLAlchemy. I never regretted it though. The peewee package is a small, lightweight ORM, but it also isn't as flexible as SQLAlchemy is.

I highly recommend reading up on the various implementations and see which one works the best for you.

Wrapping Up

This chapter covered a lot of different topics. You learned the barebones basics of SQL. Then you learned about some of the different ways you can connect to databases using Python. This was not an exhaustive list by any means though. There are many other packages you can use to connect to these databases and others too. For example, we didn't even learn about connecting to MongoDb or other NoSQL databases even though they are well supported by Python too.

If the database is even moderately popular then there's probably a way to hook into it with Python. You should spend some time checking out some of

these packages for yourself. Have fun!