PEP 249 and Python Database Packages

lesson_3_1_1

PEP 249

- Pep 249 documentation can be found here.
- Provides a blueprint for developers to make database connection packages that are similar
- Since the packages are similar, it is easy to learn one for the database you are currently using and transfer that knowledge to any future database you may encounter

Connection Objects

- a connection object is usually generated with `<package_name>.connect(host, dbname, user, password, port, driver, character set, ...)`
- the connection object does not require all of the above parameters, but the connection to your db might

Common Connection Objects Methods

Method	Use
close( )	closes the connection to the database
commit( )	commits any pending transactions, should be used before calling close()
cursor( )	used to create a cursor object to the database

Cursor Objects

- a cursor object is used to manage a database operation
- all the cursor methods except `close` takes a SQL statement as the operation

Commonly Used Cursor Methods

Method	Use
close( )	closes the cursor
execute( )	prepares and executes a database operation
fetchone( )	gets the next row of a query result from the db
fetchmany( )	gets the next set of rows of a query result from the db
fetchall( )	gets all the (remaining) rows of a query result from the db

Database Packages

Python Drivers for Some Common Databases

- these can be pip installed as needed

Database	Python Driver
SQL Server	pyodbc
PostgreSQL	psycopg2
MySQL	mysql-connector
MongoDB	pymongo
Others	Search the web for `python drivers for <database>`