Goals: Generate SQL to create tables and input data. Use SQL to query, modify, and delete data in your database.


1. Login to Hebrides and go to your home directory with the commands:
   
   ssh hebrides.wi.mit.edu –l YOURUSERNAME
   cd (cd = “change directory” in Unix)

   Since you’ll be in your home directory, any data or SQL files located there can be piped/imported/loaded into MySQL.

   Log in to your new MySQL database (named after your last name) on hebrides:
   
   mysql –u username –D lastname -p

2. Manually create a new table by typing the following at the mysql prompt:

   CREATE TABLE Targets
   (gbId VARCHAR(20) NOT NULL,
    affyId VARCHAR(20) NOT NULL,
    species VARCHAR(20),
    PRIMARY KEY (affyId))

   Notice the use of two attributes to represent the primary key.

3. Automatically create the rest of the db4bio tables by loading the create.sql script located in your home directory:

   mysql > SOURCE create.sql

4. Check that your tables were created as you wanted:

   show tables;
   describe table_name; (replacing table_name with each table in turn)
6. Load data into a table

    INSERT INTO Data VALUES("1000_at","my_experiment",156);

7. Use SELECT on this table to check that your data was entered properly. Then modify the data:

    UPDATE Data SET level=358;
    SELECT * FROM DATA;

What happened?

8. Remove a table

    SHOW TABLES;
    DROP TABLE Targets;
    SHOW TABLES;

Notice the difference?

9. Remove data from your Data table:

    DELETE FROM Data WHERE affyId="1000_at";
    SELECT * FROM Data WHERE affyId='1000_at';

10. On an iBook, open the application “SQL Manager”, click on Hebrides in the first box. Follow along with the demonstration.