**SQL COMMANDS**

*EXPORT/IMPORT:*

mysqldump –u root –p ProgrammingPal > ProgrammingPal.sql

mysql –u root –p ProgrammingPal < ProgrammingPal.sql

*CREATION/USAGE COMMANDS:*

CREATE DATABASE ProgrammingPal;

USE ProgrammingPal;

CREATE TABLE languages(languageID INT NOT NULL AUTO\_INCREMENT,language VARCHAR(15),PRIMARY KEY(languageID));

CREATE TABLE programmers(programmerID INT NOT NULL AUTO\_INCREMENT,name VARCHAR(20) NOT NULL, email VARCHAR(25) NOT NULL ,PRIMARY KEY(programmerID));

CREATE TABLE skills(programmerID INT NOT NULL,languageID INT NOT NULL,PRIMARY KEY(programmerID,languageID),FOREIGN KEY(languageID) REFERENCES languages(languageID));

CREATE TABLE users(userID INT NOT NULL AUTO\_INCREMENT,username VARCHAR(20) NOT NULL, email VARCHAR(25) NOT NULL ,PRIMARY KEY(userID));

CREATE TABLE lessons(lessonID INT NOT NULL AUTO\_INCREMENT,programmerID INT NOT NULL,languageID INT NOT NULL,userID INT NOT NULL,time TIME NOT NULL,date DATE NOT NULL,price DOUBLE NOT NULL,PRIMARY KEY(lessonID), FOREIGN KEY(programmerID) REFERENCES programmers(programmerID),FOREIGN KEY(languageID) REFERENCES languages(languageID),FOREIGN KEY(userID) REFERENCES users(userID));

*FILLING DATA COMMANDS:*

INSERT INTO languages(language) values(“Java”),(“C”),(“HTML & CSS”),(“SQL”),(“PHP”),(“Bash”),(“Python”);

INSERT INTO programmers(name, email) values(“Luke”, “luke@programmingpal.com”),(“Mitch”, “mitch@programmingpal.com”),(“Ryan”, “ryan@shmem.com”),(“Conall”, “conall@LIT.ie”),(“James”, “james@programmingpal.com”);

INSERT INTO skills(programmerID, languageID) values(1,1),(1,2),(1,3),(2,1),(2,4),(2,5),(3,3),(3,6),(4,3),(4,7),(4,6),(5,2),(5,7);

INSERT INTO users(username, email) values(“DonalOC”, ”donal@northcorkmuaythai.com”),(“DurujiH”, “durujih@yahoo.com”),(“Alice456”, “alice@wonderland.com”),(“Bob Browne”, “Bobcrypto@PKI.com”);

INSERT INTO lessons(programmerID, languageID, userID, time, date, price) VALUES(1, 1, 2, ‘14:00’, ‘2018-12-04’, 15.00),(2, 4, 3, ‘14:00’, ‘2018-12-05’, 15.00),(2, 5, 2, ‘15:00’, ‘2018-12-04’, 15.00), (4, 7, 1, ‘14:00’, ‘2018-12-04’, 15.00);

*DATA RETRIEVAL/REMOVAL:*

DROP TABLE languages;

DROP TABLE programmers;

DROP TABLE skills;

DROP TABLE users;

DROP TABLE lessons;

DELETE FROM programmers WHERE name=”abcde”;

SHOW TABLES;

SELECT \* FROM languages;

SELECT \* FROM programmers;

SELECT \* FROM skills;

SELECT \* FROM users;

SELECT \* FROM lessons;

SELECT p.name, l.language FROM skills pl RIGHT JOIN languages l ON pl.languageID = l.languageID LEFT JOIN Programmers p ON pl.programmerID = p.programmerID;

SELECT name FROM programmers WHERE programmerID IN(SELECT programmerID FROM skills WHERE languageID IN(SELECT languageID FROM languages where language = “Java”));