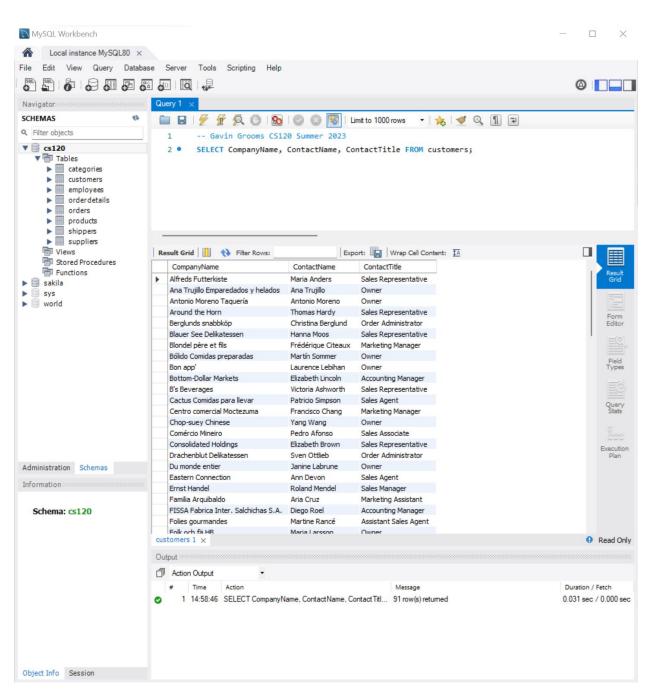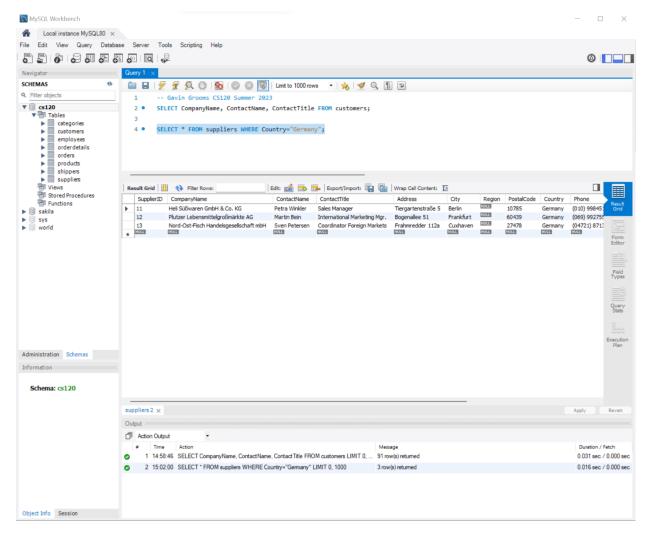Unit 3 PS1: SQL

Gavin Grooms

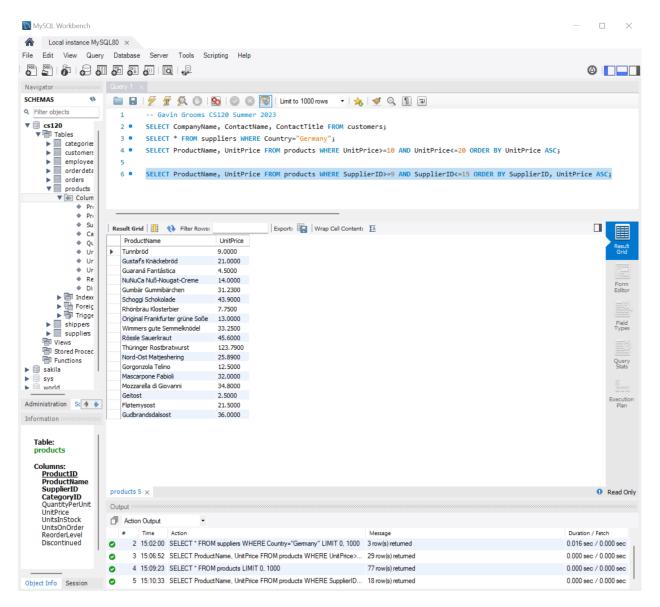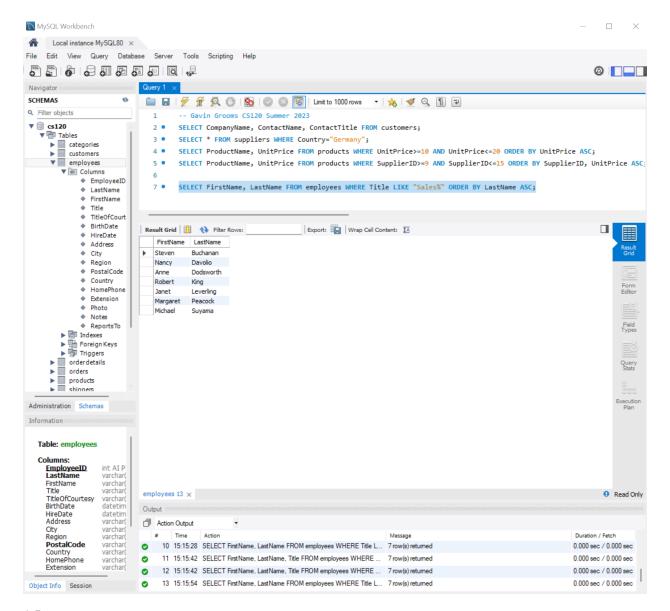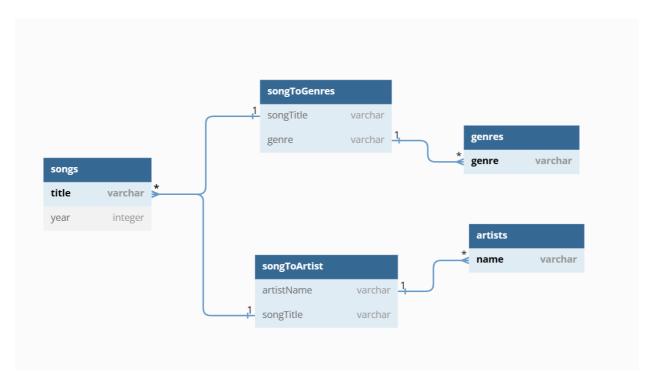CS120 Summer 2023

1.1

1.2
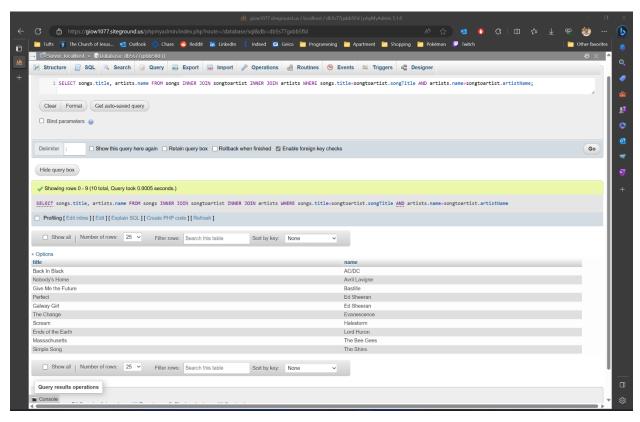
1.3

1.4

1.5

2.1

2.2

```sql
CREATE TABLE `artists` (
  `name` varchar(50) NOT NULL,
  PRIMARY KEY (`name`)
);

CREATE TABLE `genres` (
  `genre` varchar(50) NOT NULL,
  PRIMARY KEY (`genre`)
);

CREATE TABLE `songs` (
  `title` varchar(50) NOT NULL,
  `year` varchar(10) NOT NULL,
  PRIMARY KEY (`title`)
);

CREATE TABLE `songtoartist` (
  `songTitle` varchar(50) NOT NULL,
  `artistName` varchar(50) NOT NULL,
  CONSTRAINT `artist2` FOREIGN KEY (`artistName`) REFERENCES `artists` (`name`) ON DELETE CASCADE
ON UPDATE CASCADE,
  CONSTRAINT `songTitle2` FOREIGN KEY (`songTitle`) REFERENCES `songs` (`title`) ON DELETE CASCADE
ON UPDATE CASCADE
);

CREATE TABLE `songtogenres` (
  `songTitle` varchar(50) NOT NULL,
  `genre` varchar(50) NOT NULL,
  CONSTRAINT `genre` FOREIGN KEY (`genre`) REFERENCES `genres` (`genre`) ON DELETE CASCADE ON
UPDATE CASCADE,
  CONSTRAINT `songTitle` FOREIGN KEY (`songTitle`) REFERENCES `songs` (`title`) ON DELETE CASCADE
ON UPDATE CASCADE
);

INSERT INTO songs VALUES
        ("Perfect", "2017"),
        ("Ends of the Earth", "2012"),
        ("The Change", "2011"),
        ("Galway Girl", 2017),
        ("Massachusetts", "1967"),
        ("Back In Black", "1980"),
        ("Give Me the Future", "2022"),
        ("Nobody's Home", "2004"),
        ("Simple Song", "2012"),
        ("Scream", "2015");
```

```
INSERT INTO artists VALUES
        ("Ed Sheeran"),
        ("Lord Huron"),
        ("Evanescence"),
        ("The Bee Gees"),
        ("AC/DC"),
        ("Bastille"),
        ("Avril Lavigne"),
        ("The Shins"),
        ("Halestorm");

INSERT INTO genres VALUES
        ("Hard Rock"),
        ("Alternative"),
        ("Pop"),
        ("Dance Pop"),
        ("Heavy Metal"),
        ("Rock");

INSERT INTO songtoartist VALUES
        ("Perfect", "Ed Sheeran"),
        ("Ends of the Earth", "Lord Huron"),
        ("The Change", "Evanescence"),
        ("Galway Girl", "Ed Sheeran"),
        ("Massachusetts", "The Bee Gees"),
        ("Back In Black", "AC/DC"),
        ("Give Me the Future", "Bastille"),
        ("Nobody's Home", "Avril Lavigne"),
        ("Simple Song", "The Shins"),
        ("Scream", "Halestorm");

INSERT INTO songtogenres VALUES
        ("Perfect", "Pop"),
        ("Ends of the Earth", "Rock"),
        ("The Change", "Rock"),
        ("Galway Girl", "Pop"),
        ("Massachusetts", "Pop"),
        ("Back In Black", "Hard Rock"),
        ("Back In Black", "Heavy Metal"),
        ("Give Me the Future", "Alternative"),
        ("Give Me the Future", "Dance Pop"),
        ("Nobody's Home", "Pop"),
        ("Simple Song", "Alternative"),
        ("Scream", "Hard Rock");
```

2.3

Run SQL query/queries on database db5s77gxbb5fld:

```
1  SELECT * FROM artists;
2  SELECT * FROM genres;
3  SELECT * FROM songs;
4  SELECT * FROM songtoartist;
5  SELECT * FROM songtogenres;
```

Clear   Format   Get auto-saved query

☐ Bind parameters

Delimiter ;   ☐ Show this query here again ☐ Retain query box ☐ Rollback when finished ☑ Enable foreign key checks   Go

Hide query box

Showing rows 0 - 8 (9 total, Query took 0.0004 seconds.)

SELECT * FROM artists

name
AC/DC
Avril Lavigne
Bastille
Ed Sheeran
Evanescence
Halestorm
Lord Huron
The Bee Gees
The Shins

Showing rows 0 - 5 (6 total, Query took 0.0002 seconds.)

SELECT * FROM genres

genre
Alternative
Dance Pop
Hard Rock
Heavy Metal
Pop
Rock

Showing rows 0 - 9 (10 total, Query took 0.0003 seconds.)

SELECT * FROM songs

title	year
Back In Black	1980
Ends of the Earth	2012
Galway Girl	2017
Give Me the Future	2022
Massachusetts	1967
Nobody's Home	2004
Perfect	2017
Scream	2015
Simple Song	2012
The Change	2011

Current selection does not contain a unique column. Grid edit, checkbox, Edit, Copy and Delete features are not available.

Showing rows 0 - 9 (10 total, Query took 0.0003 seconds.)

SELECT * FROM songtoartist

songTitle	artistName
Perfect	Ed Sheeran
Ends of the Earth	Lord Huron
The Change	Evanescence
Galway Girl	Ed Sheeran
Massachusetts	The Bee Gees
Back In Black	AC/DC
Give Me the Future	Bastille
Nobody's Home	Avril Lavigne
Simple Song	The Shins
Scream	Halestorm

Current selection does not contain a unique column. Grid edit, checkbox, Edit, Copy and Delete features are not available.

Showing rows 0 - 11 (12 total, Query took 0.0003 seconds.)

`SELECT * FROM songtogenres`

songTitle	genre
Perfect	Pop
Ends of the Earth	Rock
The Change	Rock
Galway Girl	Pop
Massachusetts	Pop
Back In Black	Hard Rock
Back In Black	Heavy Metal
Give Me the Future	Alternative
Give Me the Future	Dance Pop
Nobody's Home	Pop
Simple Song	Alternative
Scream	Hard Rock

songTitle	genre
Perfect	Pop
Ends of the Earth	Rock
The Change	Rock
Galway Girl	Pop
Massachusetts	Pop
Back In Black	Hard Rock
Back In Black	Heavy Metal
Give Me the Future	Alternative
Give Me the Future	Dance Pop
Nobody's Home	Pop
Simple Song	Alternative
Scream	Hard Rock

2.4.1

2.4.2