

-- Insert queries

```
USE `musical_system`;
```

```
INSERT INTO `compact_disks` VALUES('X01','BOY',1980);
INSERT INTO `compact_disks` VALUES('X02','TARZAN',2006);
```

```
INSERT INTO `pieces_of_music` VALUES(01,'I will follow');
INSERT INTO `pieces_of_music` VALUES(02,'Twilight');
INSERT INTO `pieces_of_music` VALUES(03,'An cat Bubh');
INSERT INTO `pieces_of_music` VALUES(04,'into the heart');
INSERT INTO `pieces_of_music` VALUES(05,'Out of control');
INSERT INTO `pieces_of_music` VALUES(06,'Youll be in my heart');
INSERT INTO `pieces_of_music` VALUES(07,'Who better than me');
```

```
INSERT INTO `persons` VALUES('PER_01','LAWRENCE MULLEN','BRITISH');
INSERT INTO `persons` VALUES('PER_02','DAVID HOWELL','BRITISH');
INSERT INTO `persons` VALUES('PER_03','ADAM CLAYTON','BRITISH');
INSERT INTO `persons` VALUES('PER_04','PAUL DAVIDSON','BRITISH');
INSERT INTO `persons` VALUES('PER_05','PHIL COLLINS','AMERICAN');
```

```
INSERT INTO `authorships` VALUES('AUT_01','COMPOSER');
INSERT INTO `authorships` VALUES('AUT_02','WRITER');
INSERT INTO `authorships` VALUES('AUT_03','ARRENGER');
```

```
INSERT INTO `instruments` VALUES('INST_01','GUITAR');
INSERT INTO `instruments` VALUES('INST_02','BASS');
INSERT INTO `instruments` VALUES('INST_03','KEYBOARD');
```

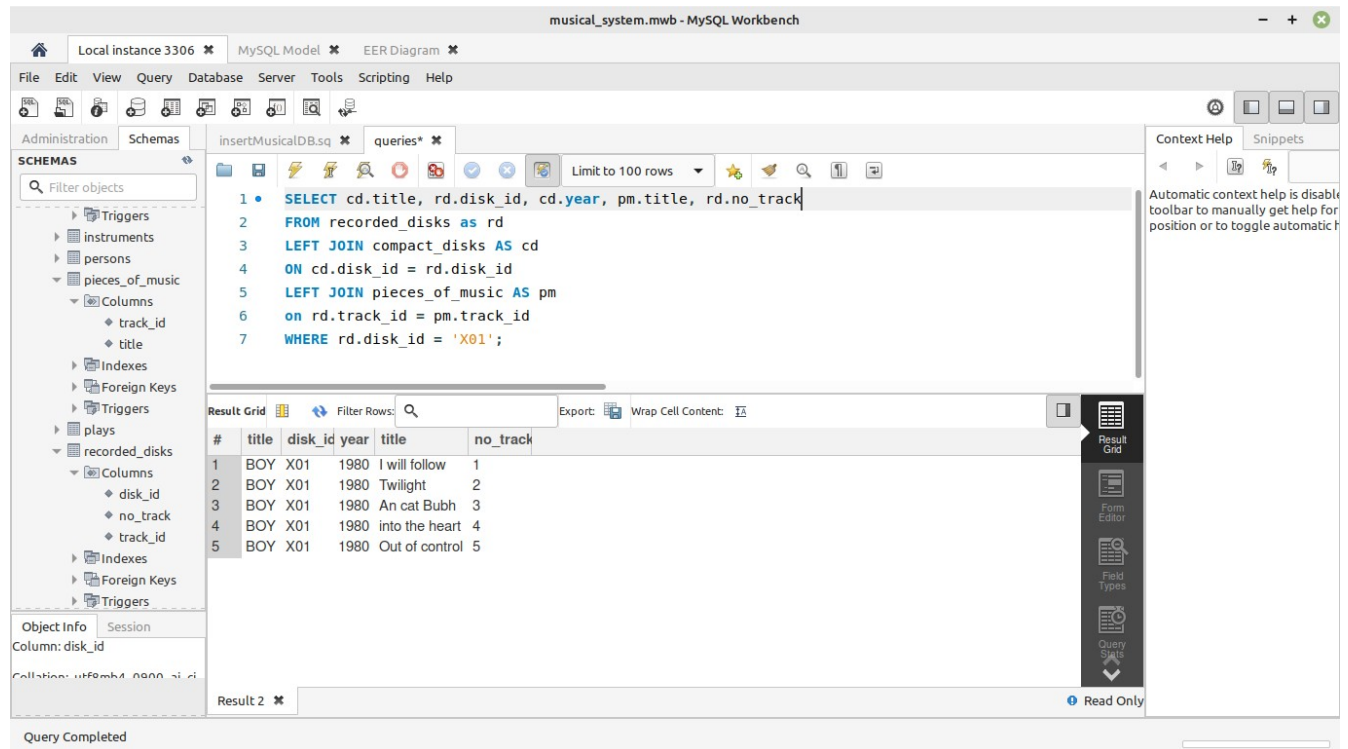
```
INSERT INTO `recorded_disks` VALUES('X01',01,01);
INSERT INTO `recorded_disks` VALUES('X01',02,02);
INSERT INTO `recorded_disks` VALUES('X01',03,03);
INSERT INTO `recorded_disks` VALUES('X01',04,04);
INSERT INTO `recorded_disks` VALUES('X01',05,05);
INSERT INTO `recorded_disks` VALUES('X02',01,06);
INSERT INTO `recorded_disks` VALUES('X02',02,07);
```

```
INSERT INTO `plays` VALUES('PER_02',01,'INST_01');
INSERT INTO `plays` VALUES('PER_02',02,'INST_02');
INSERT INTO `plays` VALUES('PER_03',03,'INST_03');
INSERT INTO `plays` VALUES('PER_04',04,'INST_01');
INSERT INTO `plays` VALUES('PER_05',05,'INST_01');
```

```
INSERT INTO `author_of` VALUES (01,'PER_01','AUT_01');
INSERT INTO `author_of` VALUES (02,'PER_01','AUT_01');
INSERT INTO `author_of` VALUES (03,'PER_01','AUT_02');
INSERT INTO `author_of` VALUES (04,'PER_03','AUT_03');
INSERT INTO `author_of` VALUES (05,'PER_02','AUT_02');
```

-- Query 1

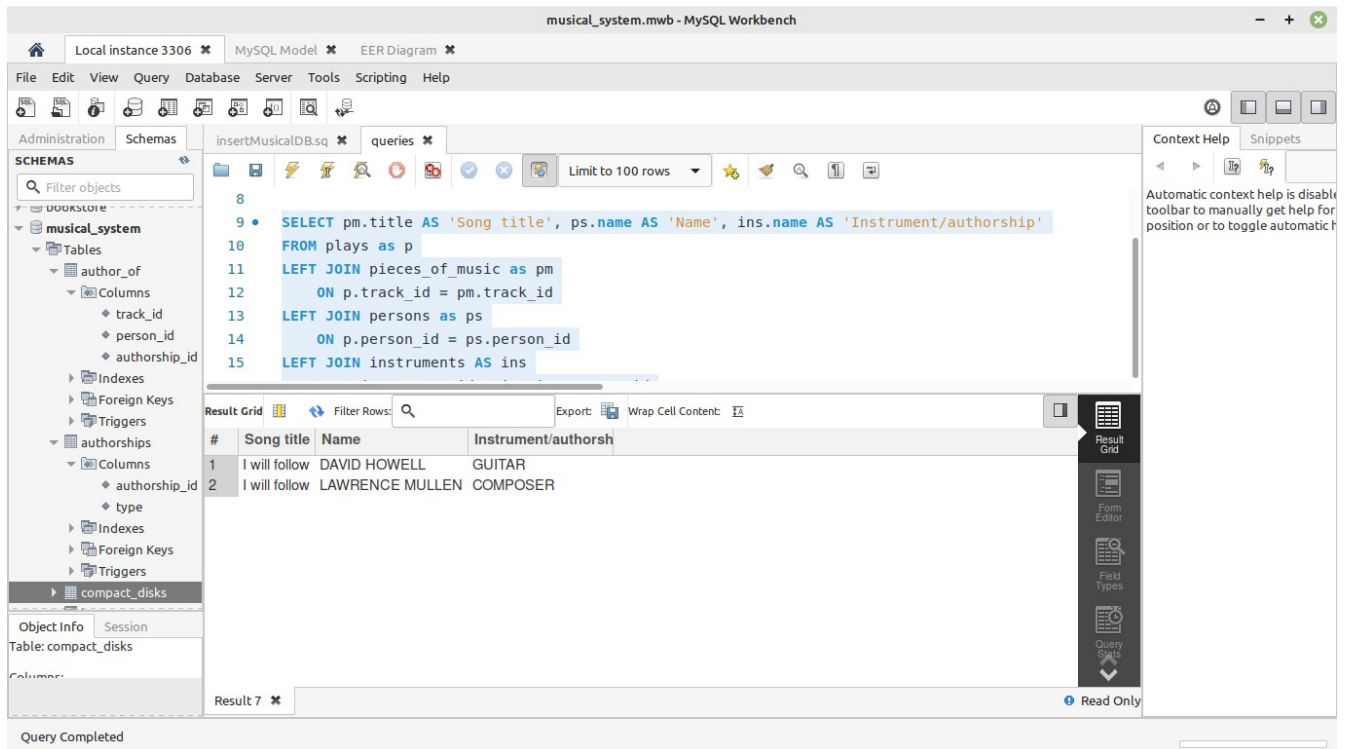
```
SELECT cd.title, rd.disk_id, cd.year, pm.title, rd.no_track
FROM recorded_disks as rd
LEFT JOIN compact_disks AS cd
ON cd.disk_id = rd.disk_id
LEFT JOIN pieces_of_music AS pm
on rd.track_id = pm.track_id
WHERE rd.disk_id = 'X01';
```



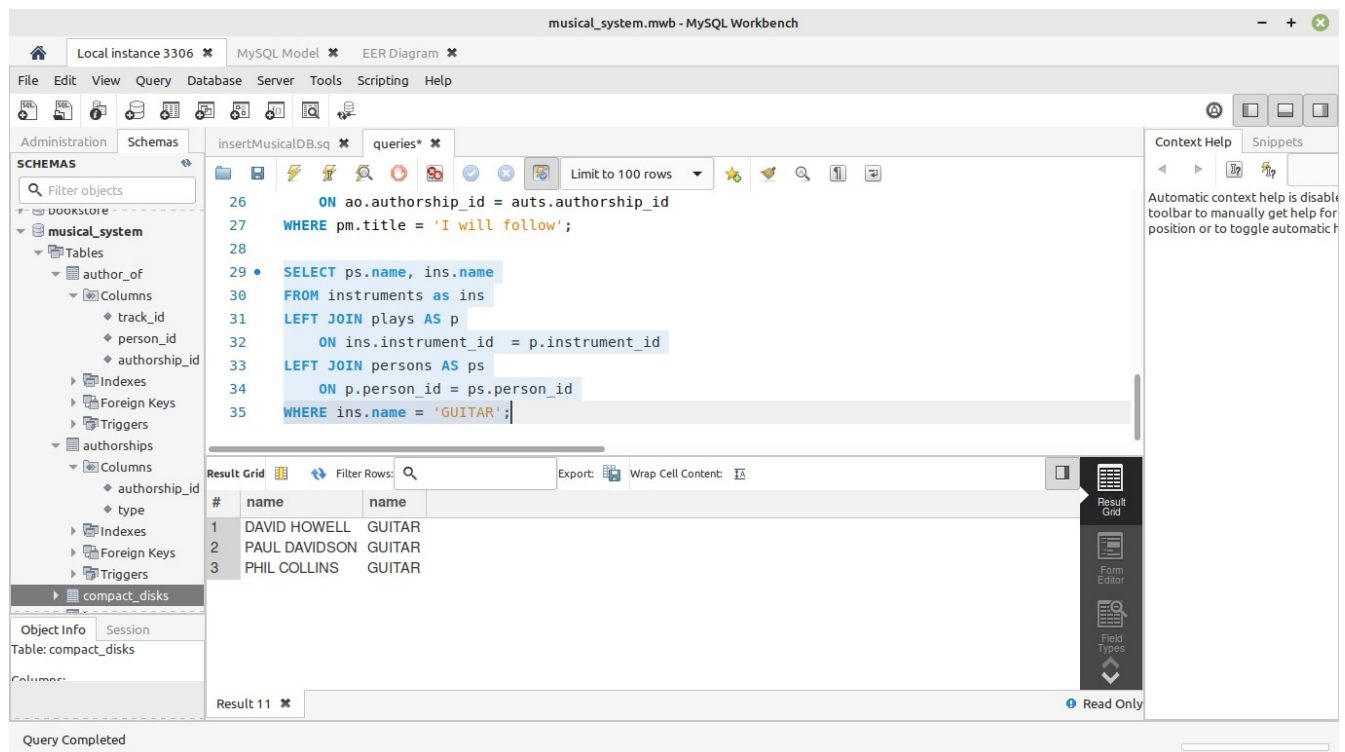
--Query 2

```
SELECT pm.title AS 'Song title', ps.name AS 'Name', ins.name AS 'Instrument/authorship'
FROM plays as p
LEFT JOIN pieces_of_music as pm
ON p.track_id = pm.track_id
LEFT JOIN persons as ps
ON p.person_id = ps.person_id
LEFT JOIN instruments AS ins
ON p.instrument_id = ins.instrument_id
WHERE pm.title = 'I will follow'
UNION
SELECT pm.title AS 'Song title', ps.name AS 'Name', auts.type AS 'Instrument/authorship'
FROM author_of as ao
LEFT JOIN pieces_of_music as pm
ON ao.track_id = pm.track_id
LEFT JOIN persons as ps
ON ao.person_id = ps.person_id
```

```
LEFT JOIN authorships AS auts
      ON ao.authorship_id = auts.authorship_id
WHERE pm.title = 'I will follow';
```



```
-- Query 3
SELECT ps.name, ins.name
FROM instruments as ins
LEFT JOIN plays AS p
    ON ins.instrument_id = p.instrument_id
LEFT JOIN persons AS ps
    ON p.person_id = ps.person_id
WHERE ins.name = 'GUITAR';
```



--Query 4

```

SELECT pm.title AS 'Song title',
       cd.year,
       rd.no_track,
       ps.name AS 'Name',
       ps.nationality,
       ins.name AS 'Instrument/authorship'
FROM pieces_of_music as pm
LEFT JOIN recorded_disks as rd
      ON pm.track_id = rd.track_id
LEFT JOIN compact_disks as cd
      ON rd.disk_id = cd.disk_id
LEFT JOIN plays as p
      ON p.track_id = pm.track_id
LEFT JOIN persons as ps
      ON p.person_id = ps.person_id
LEFT JOIN instruments AS ins
      ON p.instrument_id = ins.instrument_id
UNION
SELECT pm.title AS 'Song title',
       cd.year,
       rd.no_track,
       ps.name AS 'Name',
       ps.nationality,
       auts.type AS 'Instrument/authorship'
FROM pieces_of_music as pm

```

```

LEFT JOIN recorded_disks as rd
    ON pm.track_id = rd.track_id
LEFT JOIN compact_disks as cd
    ON rd.disk_id = cd.disk_id
LEFT JOIN author_of as ao
    ON ao.track_id = pm.track_id
LEFT JOIN persons as ps
    ON ao.person_id = ps.person_id
LEFT JOIN authorships AS auts
    ON ao.authorship_id = auts.authorship_id;

```

The screenshot shows the MySQL Workbench interface with the following components:

- Top Bar:** Local instance 3306, MySQL Model, EER Diagram.
- Menu Bar:** File, Edit, View, Query, Database, Server, Tools, Scripting, Help.
- Left Panel (SCHEMAS):** Filter objects, musical_system database, Tables (author_of, authorships, compact_disks, instruments, persons, pieces_of_music, plays, recorded_disks), Columns (disk_id, no_track, track_id), Indexes, Foreign Keys, Triggers, Views.
- Central Query Editor:**

```

65      ON rd.disk_id = cd.disk_id
66  LEFT JOIN author_of as ao
67      ON ao.track_id = pm.track_id
68  LEFT JOIN persons as ps
69      ON ao.person_id = ps.person_id
70  LEFT JOIN authorships AS auts
71      ON ao.authorship_id = auts.authorship_id;

```
- Right Panel (Context Help):** Automatic context help is disabled. You can manually get help for this position or to toggle automatic help.
- Bottom Panel (Result Grid):**

#	Song title	year	no_track	Name	nationality	Instrument/authorsh
1	I will follow	1980	1	DAVID HOWELL	BRITISH	GUITAR
2	Twilight	1980	2	DAVID HOWELL	BRITISH	BASS
3	An cat Bubh	1980	3	ADAM CLAYTON	BRITISH	KEYBOARD
4	into the heart	1980	4	PAUL DAVIDSON	BRITISH	GUITAR
5	Out of control	1980	5	PHIL COLLINS	AMERICAN	GUITAR
6	You'll be in my heart	2006	1	NULL	NULL	NULL
7	Who better than me	2006	2	NULL	NULL	NULL
8	I will follow	1980	1	LAWRENCE MULLEN	BRITISH	COMPOSER
9	Twilight	1980	2	LAWRENCE MULLEN	BRITISH	COMPOSER
10	An cat Bubh	1980	3	LAWRENCE MULLEN	BRITISH	WRITER
11	into the heart	1980	4	ADAM CLAYTON	BRITISH	ARRANGER
12	Out of control	1980	5	DAVID HOWELL	BRITISH	WRITER