1)
SELECT count(*) FROM album WHERE start_date >="'first_date"'AND end_date <=”second_date”

לא ניתן לבצע אלגברת יחסים count בגלל שקיים

2) SELECT count(*) FROM track_musician LEFT JOIN musical_track ON musical_track.id = track_musician.track_id left join person on track_musician.musician_id = person.id WHERE recording_date between '" first_date + "' AND '" + second_date '" AND person.name = " name_of_musician "

לא ניתן לבצע אלגברת יחסים בגלל שקיים count

3) SELECT DISTINCT count(album.id), person.name FROM track_musician LEFT JOIN musical_track ON track_musician.track_id=musical_track.id LEFT JOIN person ON track_musician.musician_id=person.id LEFT JOIN tracks_album ON musical_track.id= tracks_album.track_id LEFT JOIN album ON album.id=tracks_album.album_id WHERE start_date >= first AND end_date <= second AND person.name = fname ;

לא ניתן לבצע אלגברת יחסים בגלל שקיים count

4)
SELECT instrument_type.description , instrument_id , count(instrument_id) AS ct FROM track_instruments LEFT JOIN instruments_stock ON track_instruments.instrument_id = instruments_stock.id LEFT JOIN instrument_type ON instruments_stock.instrumen_type_id = instrument_type.id GROUP BY instrument_id ORDER BY ct DESC LIMIT 1;"

לא ניתן לבצע אלגברת יחסים בגלל שקיים count

5)

```
select      tracks_album.album_id,
            tracks_album.album_name,
            tracks_album.track_id,
            track_instruments.instrument_id,
            instrument_type.description,
            manf.manufacturer_name
from    track_instruments
            left join tracks_album
on track_instruments.track_id=tracks_album.track_id
            left join instruments_stock as ins_stock
on ins_stock.id=track_instruments.instrument_id
            left join instrument_type
on ins_stock.instrumen_type_id = instrument_type.id

            left join manufacturers as manf              on ins_stock.manufacturer_id=manf.id
where tracks_album.album_name=?
```

π
a.album_id,a.album_name,a.album_id,a.track_id,i.instrument_id,it.description,m.manufacturer_name{
σ a.album_name=X { ((i)⋈i.track_id=a.track.id(a))⋈is.id = i.instrument_id(is)⋈is.instrument_type_id = it.id(it)⋈is.manufacturer=m.id(m)}}

ρ(a, tracks_album)
ρ(i, track_instruments)
ρ(it , instrument_type)
ρ(m, manufacturer)

6) SELECT person.name FROM album_producer LEFT JOIN album ON album_producer.album_id=album.id LEFT JOIN person ON person.id= album_producer.producer_id WHERE (start_date >= first_date AND end_date <= second_date) GROUP BY album_producer.producer_id LIMIT 1;

π person.name

7) SELECT manufacturer_name FROM(SELECT instruments_stock.manufacturer_id, count(instruments_stock.manufacturer_id) as ct FROM track_instruments LEFT JOIN instruments_stock ON track_instruments.instrument_id = instruments_stock.id GROUP BY instruments_stock.manufacturer_id ORDER BY ct DESC LIMIT 1) AS manf LEFT JOIN manufacturers on manf.manufacturer_id = manufacturers.id;

לא ניתן לבצע אלגברת יחסים בגלל שקיים count

8) SELECT count(DISTINCT (track_musician.musician_id)) AS ct FROM track_musician;

לא ניתן לבצע אלגברת יחסים בגלל שקיים count

9) SELECT musician.musician_name, COUNT(*) AS count FROM song_with INNER JOIN musician ON song_with.musician_id = musician.musician_id GROUP BY musician.musician_name ORDER BY count DESC LIMIT 1;
לא ניתן לבצע אלגברת יחסים בגלל שקיים count

10) SELECT genre FROM musical_track GROUP BY musical_track.genre LIMIT 1;

11) SELECT person.name FROM musical_track LEFT JOIN `person` ON musical_track.technician_id = person.Id WHERE (recording_date >= '" + first + "' AND recording_date <= '" + second + "') GROUP BY musical_track.technician_id LIMIT 1;
לא ניתן לבצע אלגברת יחסים בגלל שקיים count

12)
SELECT * FROM `album`
WHERE end_date = (SELECT MIN(end_date) FROM album);
π
$\rho_{a/a1}(\pi_{a1}((end\_date \times end\_date) - \sigma_{a1 < a2} (\rho_{a1/a}(end\_date) \times \rho_{a2/a}(end\_date))))$

13) SELECT track_name FROM tracks_album RIGHT JOIN musical_track ON tracks_album.track_id = musical_track.id GROUP BY tracks_album.track_id HAVING count(track_id) >1;
לא ניתן לבצע אלגברת יחסים בגלל שקיים count

14)
SELECT distinct(person.name) FROM (SELECT tb.album_id,tb.technician_id,count(tb.technician_id) AS ct FROM (SELECT track.id , track.track_name , tracks_album.album_id , track.technician_id ,count(technician_id) FROM musical_track AS track LEFT JOIN tracks_album ON track.id = tracks_album.track_id GROUP BY track.technician_id ,tracks_album.album_id ORDER BY tracks_album.album_id ASC) AS tb GROUP BY tb.album_id) AS tb1 LEFT JOIN person ON person.id=tb1.technician_id WHERE tb1.ct =1;
לא ניתן לבצע אלגברת יחסים בגלל שקיים count

15)
SELECT tb.name FROM (SELECT musician_id, genre ,person.name,count(*) AS ct FROM track_musician LEFT JOIN musical_track ON track_musician.track_id =musical_track.id LEFT JOIN person ON person.id = musician_id GROUP BY musician_id, genre) AS tb GROUP BY tb.name ORDER BY count(tb.musician_id) DESC LIMIT 1;

לא ניתן לבצע אלגברת יחסים בגלל שקיים count