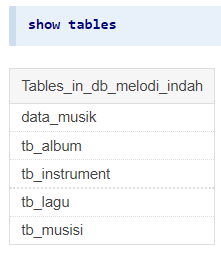
**Requirement 1**

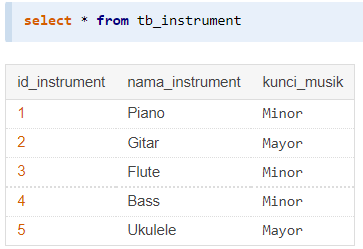
**Nomor 1 - db\_melodi\_indah**

* List Tabel



Terdapat 4 tabel dan 1 view yang tersimpan di database db\_elodi\_indah. 4 tabel dengan awalan tb adalah data yang diinsertkan, sedangkan data\_musik adalah view tampilan dari data agar terstruktur.

* Data dari tb\_instrument



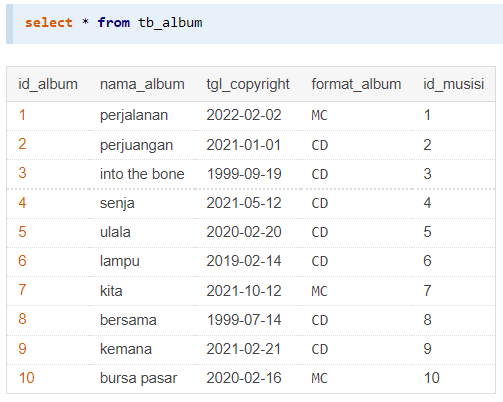
Tabel tb\_instrument memiliki 3 kolom yaitu:

* id\_instrument int (11) primary-key auto-increment
* nama\_instrument varchar (50)
* kunci\_musik enum (Mayor,Minor)
* Data dari tb\_musisi



Tabel tb\_musisi memiliki 6 kolom yaitu:

* id\_musisi int (11) primary-key auto-increment
* ssn\_musisi int (11) unique
* nama\_musisi varchar (50)
* alamat\_musisi text
* no\_telp\_musisi varchar (50)
* id\_instrument foreign-key dari id\_instrument tb\_instument
* Data dari tb\_album



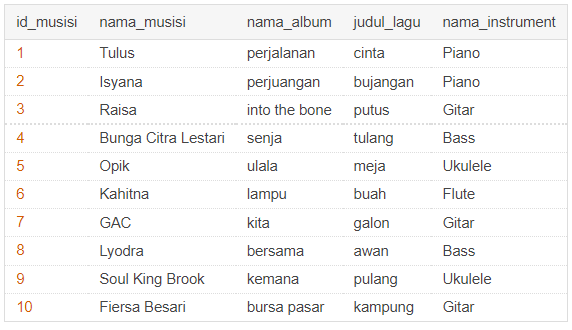
Tabel tb\_album memiliki 5 kolom yaitu:

* id\_album int (11) primary-key auto-increment
* nama\_album varchar (50)
* tgl\_copyright date
* format\_album enum (CD, MC)
* id\_musisi foreign-key dari id\_musisi tb\_musisi
* Data dari tb\_lagu



Tabel tb\_alagu memiliki 3 kolom yaitu:

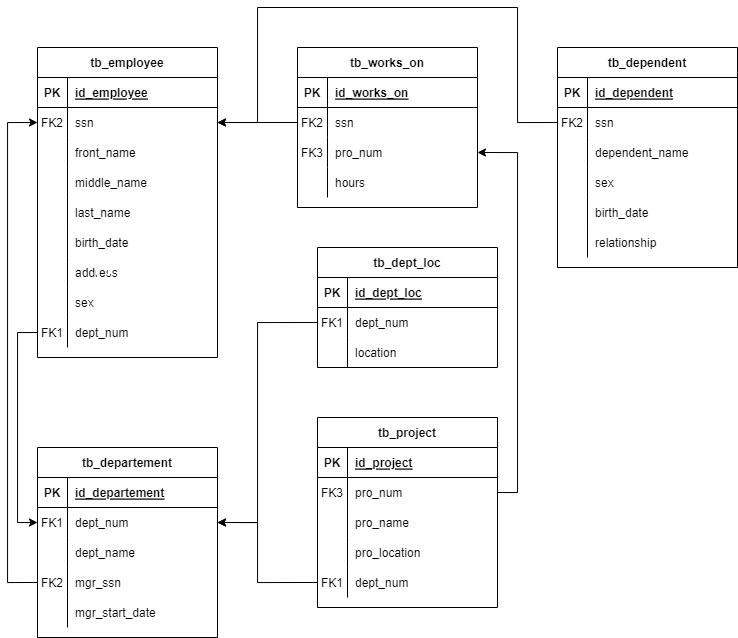
* id\_lagu int (11) primary-key auto-increment
* judul\_lagu varchar (50)
* id\_album foreign=key dari id\_album tb\_album
* Data dari view\_musik



View\_musik merupakan hasil join dari setiap table sebelumnya sehingga output dapat terstruktur dan dapat di presentasikan.

**Requirement 2**

**Nomor 2 – Database Schema from employee\_sesi12**



Dibuat sebuah schema untuk database employee\_sesi12 yang berisi 6 tabel.

Terdapat 3 foreign-key yaitu :

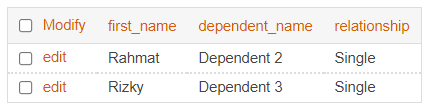
* FK1, bersumber dari tb\_departement.dept\_num lalu menargetkan kepada tb\_employee.dept\_num, tb\_project.dept\_num dan tb\_dept\_loc.dept\_num
* FK2, bersumber dari tb\_employee.ssn lalu menargetkan kepada tb\_departement.mgr\_ssn, tb\_works\_on.ssn, dan tb\_dependent.ssn
* FK3, bersumber dari tb\_project.pro+num lalu menargetkan kepada tb\_works\_on.pro\_num

**Nomor 3**

Terdapat perinitah-perintah untuk membuat query dari setiap keadaan yaitu:

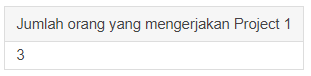
1. Tampilkan dependent\_name dan relationship dengan employee yang namanya diawali huruf R ?

[**create view**](https://mariadb.com/kb/en/library/create-view/) [poin\_a](http://localhost/adminer/?server=localhost&username=root&db=employee_sesi12&table=poin_a) as  
[**select**](https://mariadb.com/kb/en/library/select/)  
 temp.first\_name,  
 tdepen.dependent\_name,  
 tdepen.relationship  
from  
 [tb\_dependent](http://localhost/adminer/?server=localhost&username=root&db=employee_sesi12&table=tb_dependent) tdepen  
[**join**](https://mariadb.com/kb/en/library/join/)  
 [tb\_employee](http://localhost/adminer/?server=localhost&username=root&db=employee_sesi12&table=tb_employee) temp on temp.ssn=tdepen.ssn  
where  
 temp.first\_name [**like**](https://mariadb.com/kb/en/library/string-comparison-functions/#operator_like) 'r%'



1. Banyaknya employee yang mengerjakan project PNum = 1 ?

[**create view**](https://mariadb.com/kb/en/library/create-view/) poin\_b as  
[**select**](https://mariadb.com/kb/en/library/select/)  
 [**count**](https://mariadb.com/kb/en/library/group-by-functions/#function_count)(id\_works\_on) as "Jumlah orang yang mengerjakan Project 1"  
from  
 [tb\_works\_on](http://localhost/adminer/?server=localhost&username=root&db=employee_sesi12&table=tb_works_on)  
where  
 pro\_num=1



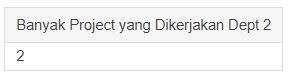
1. Banyaknya employee yang memiliki salary lebih dari 3500000

[**create view**](https://mariadb.com/kb/en/library/create-view/) [poin\_c](http://localhost/adminer/?server=localhost&username=root&db=employee_sesi12&table=poin_c) as  
[**select**](https://mariadb.com/kb/en/library/select/)  
 "Jumlah salary > 3500000" as field,  
 [**count**](https://mariadb.com/kb/en/library/group-by-functions/#function_count)(temp.salary) as total  
from  
 [tb\_employee](http://localhost/adminer/?server=localhost&username=root&db=employee_sesi12&table=tb_employee) temp  
where  
 salary>3500000



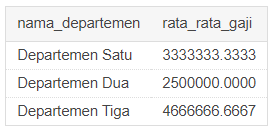
1. Banyaknya project yang dikerjakan DNum =2 ?

[**create view**](https://mariadb.com/kb/en/library/create-view/) [poin\_d](http://localhost/adminer/?server=localhost&username=root&db=employee_sesi12&table=poin_d) as  
[**select**](https://mariadb.com/kb/en/library/select/)  
 [**count**](https://mariadb.com/kb/en/library/group-by-functions/#function_count)(pro\_num) as "Banyak Project yang Dikerjakan Dept 2"  
from  
 [tb\_project](http://localhost/adminer/?server=localhost&username=root&db=employee_sesi12&table=tb_project)  
where  
 dept\_num = 2



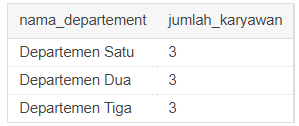
1. Hitung total dan rata-rata salary dari setiap departemen ?

[**create view**](https://mariadb.com/kb/en/library/create-view/) [poin\_e](http://localhost/adminer/?server=localhost&username=root&db=employee_sesi12&table=poin_e) as  
[**select**](https://mariadb.com/kb/en/library/select/)  
 tdept.dept\_name as nama\_departemen,  
 [**avg**](https://mariadb.com/kb/en/library/group-by-functions/#function_avg) (temp.salary) as rata\_rata\_gaji  
from  
 [tb\_employee](http://localhost/adminer/?server=localhost&username=root&db=employee_sesi12&table=tb_employee) temp  
[**join**](https://mariadb.com/kb/en/library/join/)  
 [tb\_departement](http://localhost/adminer/?server=localhost&username=root&db=employee_sesi12&table=tb_departement) tdept on tdept.dept\_num=temp.dept\_num  
group by  
 tdept.dept\_num



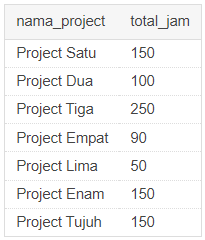
1. Banyaknya employee dari setiap department dan urutkan berdasarkan employee terbanyak ?

[**create view**](https://mariadb.com/kb/en/library/create-view/) [poin\_f](http://localhost/adminer/?server=localhost&username=root&db=employee_sesi12&table=poin_f) as  
[**select**](https://mariadb.com/kb/en/library/select/)  
 tdept.dept\_name as nama\_departement,  
 [**count**](https://mariadb.com/kb/en/library/group-by-functions/#function_count)(temp.ssn) as jumlah\_karyawan  
from  
 [tb\_employee](http://localhost/adminer/?server=localhost&username=root&db=employee_sesi12&table=tb_employee) temp  
[**join**](https://mariadb.com/kb/en/library/join/)  
 [tb\_departement](http://localhost/adminer/?server=localhost&username=root&db=employee_sesi12&table=tb_departement) tdept on tdept.dept\_num=temp.dept\_num  
group by  
 tdept.dept\_num



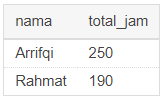
1. Total hours perweek dari semua employee untuk setiap project ?

[**create view**](https://mariadb.com/kb/en/library/create-view/) [poin\_g](http://localhost/adminer/?server=localhost&username=root&db=employee_sesi12&table=poin_g) as  
[**select**](https://mariadb.com/kb/en/library/select/)  
 tpro.pro\_name as nama\_project,  
 [**sum**](https://mariadb.com/kb/en/library/group-by-functions/#function_sum)(tw.hours) as total\_jam  
from  
 [tb\_works\_on](http://localhost/adminer/?server=localhost&username=root&db=employee_sesi12&table=tb_works_on) tw  
[**join**](https://mariadb.com/kb/en/library/join/)  
 [tb\_project](http://localhost/adminer/?server=localhost&username=root&db=employee_sesi12&table=tb_project) tpro on tpro.pro\_num=tw.pro\_num  
group by  
 tw.pro\_num



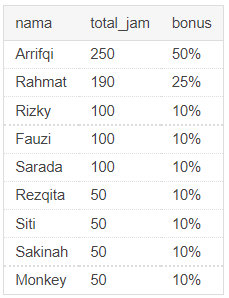
1. Employee yang memiliki total hours perweek lebih besar dari 140 hours dan urutkan berdasarkan jumlah jam kerja terbanyak?

[**create view**](https://mariadb.com/kb/en/library/create-view/) poin\_h as  
[**select**](https://mariadb.com/kb/en/library/select/)  
 temp.first\_name as nama,  
 [**sum**](https://mariadb.com/kb/en/library/group-by-functions/#function_sum)(tw.hours) as total\_jam  
from  
 [tb\_employee](http://localhost/adminer/?server=localhost&username=root&db=employee_sesi12&table=tb_employee) temp  
[**join**](https://mariadb.com/kb/en/library/join/)  
 [tb\_works\_on](http://localhost/adminer/?server=localhost&username=root&db=employee_sesi12&table=tb_works_on) tw on temp.ssn=tw.ssn  
group by  
 tw.ssn  
having [**sum**](https://mariadb.com/kb/en/library/group-by-functions/#function_sum)(tw.hours)>140  
order by  
 [**sum**](https://mariadb.com/kb/en/library/group-by-functions/#function_sum)(tw.hours) desc



1. Kelompokkan bonus employee berdasarkan jumlah jam kerjanya ? (Jika >= 200 hours, maka bonus = 50%; Jika >= 150 hours, maka bonus = 25%, Selainnya bonus = 10%)

[**create view**](https://mariadb.com/kb/en/library/create-view/) poin\_i as  
[**select**](https://mariadb.com/kb/en/library/select/)  
 temp.first\_name as nama,  
 [**sum**](https://mariadb.com/kb/en/library/group-by-functions/#function_sum)(tw.hours) as total\_jam,  
 [**case**](https://mariadb.com/kb/en/library/control-flow-functions/#operator_case)   
 when [**sum**](https://mariadb.com/kb/en/library/group-by-functions/#function_sum)(tw.hours) > 200 then '50%'  
 when [**sum**](https://mariadb.com/kb/en/library/group-by-functions/#function_sum)(tw.hours) > 150 then '25%'  
 else '10%'  
 [**end**](https://mariadb.com/kb/en/library/begin-end/) as bonus  
from  
 [tb\_employee](http://localhost/adminer/?server=localhost&username=root&db=employee_sesi12&table=tb_employee) temp  
[**join**](https://mariadb.com/kb/en/library/join/)  
 [tb\_works\_on](http://localhost/adminer/?server=localhost&username=root&db=employee_sesi12&table=tb_works_on) tw on temp.ssn=tw.ssn  
group by  
 tw.ssn  
order by  
 [**sum**](https://mariadb.com/kb/en/library/group-by-functions/#function_sum)(tw.hours) desc



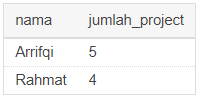
1. Banyaknya project yang dikerjakan tiap employee dan urutkan dari yang terbanyak ?

[**create view**](https://mariadb.com/kb/en/library/create-view/) poin\_j as  
[**select**](https://mariadb.com/kb/en/library/select/)  
 temp.first\_name as nama,  
 [**count**](https://mariadb.com/kb/en/library/group-by-functions/#function_count)(tw.pro\_num) as jumlah\_project  
from  
 [tb\_employee](http://localhost/adminer/?server=localhost&username=root&db=employee_sesi12&table=tb_employee) temp  
[**join**](https://mariadb.com/kb/en/library/join/)  
 [tb\_works\_on](http://localhost/adminer/?server=localhost&username=root&db=employee_sesi12&table=tb_works_on) tw on temp.ssn=tw.ssn  
group by  
 temp.ssn  
order by  
 [**sum**](https://mariadb.com/kb/en/library/group-by-functions/#function_sum)(tw.hours) desc



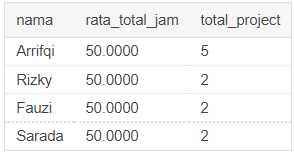
1. Employee yang bekerja pada 4 project / lebih?

[**create view**](https://mariadb.com/kb/en/library/create-view/) poin\_k as  
[**select**](https://mariadb.com/kb/en/library/select/)  
 temp.first\_name as nama,  
 [**count**](https://mariadb.com/kb/en/library/group-by-functions/#function_count)(tw.pro\_num) as jumlah\_project  
from  
 [tb\_employee](http://localhost/adminer/?server=localhost&username=root&db=employee_sesi12&table=tb_employee) temp  
[**join**](https://mariadb.com/kb/en/library/join/)  
 [tb\_works\_on](http://localhost/adminer/?server=localhost&username=root&db=employee_sesi12&table=tb_works_on) tw on temp.ssn=tw.ssn  
group by  
 temp.ssn  
having [**count**](https://mariadb.com/kb/en/library/group-by-functions/#function_count)(tw.pro\_num)>=4  
order by  
 [**sum**](https://mariadb.com/kb/en/library/group-by-functions/#function_sum)(tw.hours) desc



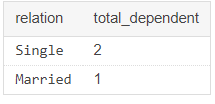
1. Employee yang memiliki rata-rata hours perweek = 50 jam dan bekerja pada >=2 project ?

[**create view**](https://mariadb.com/kb/en/library/create-view/) poin\_l as  
[**select**](https://mariadb.com/kb/en/library/select/)  
 temp.first\_name as nama,  
 [**avg**](https://mariadb.com/kb/en/library/group-by-functions/#function_avg)(tw.hours) as rata\_total\_jam,  
 [**count**](https://mariadb.com/kb/en/library/group-by-functions/#function_count)(tw.pro\_num) as total\_project  
from  
 [tb\_employee](http://localhost/adminer/?server=localhost&username=root&db=employee_sesi12&table=tb_employee) temp  
[**join**](https://mariadb.com/kb/en/library/join/)  
 [tb\_works\_on](http://localhost/adminer/?server=localhost&username=root&db=employee_sesi12&table=tb_works_on) tw on temp.ssn=tw.ssn  
group by  
 tw.ssn  
having [**avg**](https://mariadb.com/kb/en/library/group-by-functions/#function_avg)(tw.hours)>=50 [**and**](https://mariadb.com/kb/en/library/logical-operators/#operator_and) [**count**](https://mariadb.com/kb/en/library/group-by-functions/#function_count)(tw.pro\_num)>=2  
order by  
 [**sum**](https://mariadb.com/kb/en/library/group-by-functions/#function_sum)(tw.hours) desc



1. Banyaknya Dependent berdasarkan relationship dengan employee ?

[**create view**](https://mariadb.com/kb/en/library/create-view/) [poin\_m](http://localhost/adminer/?server=localhost&username=root&db=employee_sesi12&table=poin_m) as  
[**select**](https://mariadb.com/kb/en/library/select/)  
 td.relationship as relation,  
 [**count**](https://mariadb.com/kb/en/library/group-by-functions/#function_count)(td.relationship) as total\_dependent  
from  
 [tb\_employee](http://localhost/adminer/?server=localhost&username=root&db=employee_sesi12&table=tb_employee) temp  
[**join**](https://mariadb.com/kb/en/library/join/)  
 [tb\_dependent](http://localhost/adminer/?server=localhost&username=root&db=employee_sesi12&table=tb_dependent) td on temp.ssn=td.ssn  
group by  
 td.relationship



1. Berapa lama Manager tiap Department sudah menjabat ?

[**create view**](https://mariadb.com/kb/en/library/create-view/) [poin\_n](http://localhost/adminer/?server=localhost&username=root&db=employee_sesi12&table=poin_n) as  
[**select**](https://mariadb.com/kb/en/library/select/)  
 temp.first\_name as name,  
 td.dept\_name as departement,  
 mgr\_start\_date as tgl\_mulai,  
 [**timestampdiff**](https://mariadb.com/kb/en/library/date-and-time-functions/#function_timestampdiff)(month, mgr\_start\_date, [**curdate**](https://mariadb.com/kb/en/library/date-and-time-functions/#function_curdate)()) as lama\_menjabat\_bulan  
from  
 [tb\_employee](http://localhost/adminer/?server=localhost&username=root&db=employee_sesi12&table=tb_employee) temp  
[**join**](https://mariadb.com/kb/en/library/join/)  
 [tb\_departement](http://localhost/adminer/?server=localhost&username=root&db=employee_sesi12&table=tb_departement) td on temp.ssn=td.mgr\_ssn  
order by   
[**timestampdiff**](https://mariadb.com/kb/en/library/date-and-time-functions/#function_timestampdiff)(month, mgr\_start\_date, [**curdate**](https://mariadb.com/kb/en/library/date-and-time-functions/#function_curdate)()) desc



1. Lokasi project yang menjadi tempat lebih dari satu department?

[**create view**](https://mariadb.com/kb/en/library/create-view/) poin\_o as  
[**select**](https://mariadb.com/kb/en/library/select/)  
 tp.pro\_location,  
 [**count**](https://mariadb.com/kb/en/library/group-by-functions/#function_count)(tp.pro\_location) as berapa\_kali\_menjadi\_tempat\_project  
from  
 [tb\_project](http://localhost/adminer/?server=localhost&username=root&db=employee_sesi12&table=tb_project) tp  
group by  
 tp.pro\_location  
order by  
 [**count**](https://mariadb.com/kb/en/library/group-by-functions/#function_count)(tp.pro\_location) desc

