MYSQL DATABASE

RACAP

Properties of Good Database	• Scalability • Elasticity • Security and governance • Data integrity
SQL	• DDL - create,drop,delete • DML - select insert update delete • DCL - Grant, revoke,
End of SQL	• Semi colon • /G

QUERIES

```
create database JobPortal;
show databases;
use JobPortal;
create table UserDetails (name text, designation text, salary int);
show tables;
insert into UserDetails (Name, Designation, Salary) values
("Parul","Data Scientist",10);
select * from UserDetails;
```

```
Update UsersDetails set Designation ="Enginer" where Name ="Paul";
update UserDetails set Salary=40 where Name="Paul";
```

```
delete from UsersDetails where Salary>=50;
delete from Userdetail where name in ("Ashley")
describe usersDetails;
desc usersDetails;
show create table userDetails;
alter table userDetails add column Experience int(3);
alter table  userdetails change column Experiemce Exp int(3);
alter table userdetails modify Exp int(10);
alter table usedetails drop column Exp;

dir
cat userdetail.csv
mysql -uroot -p
use JobPortal;
show tables;
select * from userdetails;


//comand for loading data locally (load data local)
load data local infile "/Path/userData.csv" into table UserDetails
columns terminated by "," optionally enclosed by """ ignore 1 lines;
---------------------------------------------
select * into outfile "/tmp/userDetails.csv" fields terminated by ","
optionally enclosed by """ lines terminated by "\n" from userDetails;
select * into outfile "/tmp/userDetails.csv" fields terminated by ","
optionally enclosed by """ lines terminated by "\r\n" from userDetails;
---------------------------------------------
mysqldump -uroot -p > JobPortal.sql;
mysqldump -uroot -p JobPortal > JobPortal.sql;
mysqldump -uroot -p databasename tablename > jobportal;
vim jobportal.sql;


drop database jobportal;
//outside mysql
```

```
mysql -uroot -p < jobportal;  // itafeli
//enter inside database mysql shell
mysql -uroot -p
create database jobportal;
//outside mysql
mysql -uroot -p jobportal < jobportal;
//enter inside database mysql shell
mysql -uroot -p
show databases;
use jobportal;

select count(*) from userdetails;
select distinct Salary from userdetails;
select count(distinct salary) from userdetails;
select sum(salary) from userdetails;
select sum(salary) as totalsalary from userdetails;
select avg(salary) as avereagesalary from userdetails;
select stddev(salary) from userdetails;
select max(salary) from userdetails;
select min(salary) from userdetails;
```

```
select select sum(salary) from userdetails where Name in
("sneha","danni");
select sum(salary) from userdetails where name in ("sneha","danni") or
designation ="CEO";
select sum(salary) from userdetails where name <> "Danni";
select sum(salary) from userdetails where name not in ("Danni");
select name from userdetails where salary >=20 and salary <=50;
select name from userdetails where salary between 20 and 50;
```

```
select * from userdetails limit 2;
```

```
select * from userdetails limit 2 offset 2;
select * from userdetails order by salary;
select * from userdetails order by salary desc;
select * from userdetails order by salary desc limit 1;
select name from userdetails order by salary desc limit 1;
select * from userdetails where name like  "S%";
select sum(salary) from userdetails where name like "a%";
select sum(salary) from userdetails where name like "%a";
select sum(salary) from userdetails where name like "%i%";
select sum(salary) from userdetails where name like "__r%";

-----------------------------------------------------
Grouping:
alter table userdetails add column department varchar(255);
update userdetails set department ="Data science" where name="Parul";
update userdetails set deaprtment ="strategy" where name in
("Vivek","Roshni");

-----------------------------------------------------------
select count(*),department  from userdetails   group by department;
select sum(salary) as total_salary, department from                userdetails
group by department;
select sum(salary) as total_salary,department from userDetails from
group by depatment having total_salary > 100;
select sum(salary) as total_salary, depaterment form userdetails from
group by department having salary > 100 order by total_salary desc;
select sum(salary) as total_salary, avg(salary),stddev(salary)      as
std_slary, department from userdetails group by depament having
tota_salary>100 order by total_salary;
select sum(salary) as total_salary, avg(salary),stddev(salary)      as
std_slary, department from userdetails  where department = "Strategy"
group by depament having tota_salary>100 order by total_salary desc;
-----------------------------------------------
```

JOIN

Left:

SELECT ContactaDetails.name, ContactDetails.phonenumber from purchases left join ContactDetails on purchases.userin = ContactDetails.userid

inner join:
SELECT ContactaDetails.name, ContactDetails.phonenumber from purchases inner join ContactDetails on purchases.userid = ContactDetails.userid

cartesian or cross:
SELECT a,b,c from purchases cross join ContactDetails

right join:
SELECT ContactaDetails.name, ContactDetails.phonenumber from purchases right join ContactDetails on purchases.userin = ContactDetails.userid

self join:
select u.a,V,b from table as U join table as V on U.<key>=V.<key>

INDEXING IN MYSQL
concept and synatax
how it

CREATE INDEX index_name ON table (column_name)
Eg:CREATE INDEX name_1 ON Contacts(Name)
Eg: CREATE INDEX name_composite ON Contacts(Name,Phonenumber)

learn: B-treed

```
SELECT CONCAT(name,nationality) from UserDetails limit 10;
SELECT ucase(nationality) from UserDetails limit 10;
SELECT lcase(nationality) FROM UserDetails limit 10;
SELECT  ltrim(" Hello") from player limit 10;
SELECT  rtrim("Hello") from player limit 10;
SELECT  trim(" Hello World") from player limit 10;
SELECT  left(name,2) from player limit 10;
SELECT  right(name,2) from player limit 10;
SELECT  substring(name,2,5) from player limit 10;
SELECT  now() from player limit 1;
SELECT  now(), curdate(), curtime() from player limit 1;
SELECT  now(), curdate(), curtime(), unix_timestamp() from player
limit 1;
SELECT  joined from player limit 1;
SELECT  date(joined) from player limit 1;
SELECT  time(joined) from player limit 1;
SELECT  joined,date(joined),month(joined),day(joined) year(joined)
from player limit 1;
SELECT  joined,date_format(joined,"%m%d%y") as formated_date
from player limit 1;
SELECT  value/wage from player limit 10;
SELECT  value/wage, round(value/wage) as nearest_integer from player
limit 10;
SELECT  value/wage, round(value/wage) as
nearest_integer,floor(value/enegry) ceiling as
nearest_integer(value/enegry)from player limit 10;

SELECT truncate(value/wage,2) as Two_dec_place FROM userDetails;
SELECT abs(weight) FROM userDetails;
```

MYSQL AND PYTHON

mkdir SQL
virtualenv venv (virtualenv -p python3 venv)
ls
source venv/bin/activate (deactivate)

Steps and links:

1-Creating virtual enviroment:
https://conda.io/projects/conda/en/latest/user-guide/tasks/manage-environments.html#creating-an-environment-with-commands

conda activate myenv
conda deactivate

2-install library:
pip install mysql-connector

AFTER THAT LOOK THE FOLLOWING REPOSITORY TO GET WORKING CODES AND APP

Github.com/vemacademics

Resources:
https://dev.mysql.com/doc/refman/5.7/en/
https://www.sublimetext.com/download