**SQL PROJECT**

**Company HR Data Analysis Report**

create table region(region\_id int primary key,region\_name varchar(40));

insert into region values(101,'North');

insert into region values(102,'East');

insert into region values(103,'South');

insert into region values(104,'West');

select \* from region

create table country(country\_id int primary key,

country\_name varchar(50),region\_id int,

foreign key(region\_id) references region(region\_id));

insert into country values(201,'England',101);

insert into country values(202,'England',102);

insert into country values(203,'England',103);

insert into country values(204,'England',104);

insert into country values(205,'Aus',101);

insert into country values(206,'Aus',102);

insert into country values(207,'Aus',103);

insert into country values(208,'Aus',104);

insert into country values(209,'India',101);

insert into country values(210,'India',102);

insert into country values(211,'India',103);

insert into country values(212,'India',104);

insert into country values(213,'Canada',101);

insert into country values(214,'Canada',102);

insert into country values(215,'Canada',103);

insert into country values(216,'Canada',104);

select \* from country

create table location(location\_id int primary key,

street\_address varchar(50),postal\_code int not null,city varchar(30),

state varchar(30),country\_id int,foreign key(country\_id) references country(country\_id));

insert into location values(1111,'sab',422601,'lmn0','pqr0',201);

insert into location values(2222,'sac',422602,'lmn1','pqr1',202);

insert into location values(3333,'sad',422603,'lmn2','pqr2',203);

insert into location values(4444,'sae',422604,'lmn3','pqr3',204);

insert into location values(5555,'saf',422605,'lmn4','pqr4',205);

insert into location values(6666,'sag',422606,'lmn5','pqr5',206);

insert into location values(7777,'sah',422607,'lmn6','pqr6',207);

insert into location values(8888,'sai',422608,'lmn7','pqr7',208);

insert into location values(9999,'saj',422609,'lmn8','pqr8',209);

insert into location values(8765,'sak',422590,'lmn9','pqr9',210);

select \* from location

create table dept01(dept\_id int primary key,dept\_name varchar(40),manager\_id int,location\_id int);

insert into dept01 values(1,'RD',401,1111);

insert into dept01 values(2,'Production',402,2222);

insert into dept01 values(3,'Quality',403,3333);

insert into dept01 values(4,'HR',404,4444);

insert into dept01 values(5,'Management',405,5555);

insert into dept01 values(6,'Logistic',406,5555);

select \* from dept01

create table jobs(job\_id int primary key,job\_title varchar(30),min\_salary int,max\_salary int);

insert into jobs values(21,'Manager',45000,100000);

insert into jobs values(22,'Deputy Manager',35000,80000);

insert into jobs values(23,'Seniorclerk',30000,60000);

insert into jobs values(24,'Clerk',25000,50000);

insert into jobs values(25,'Assistant',20000,40000);

insert into jobs values(26,'worker',15000,40000);

select \* from jobs

create table employees01(emp\_id int primary key,first\_name varchar(40),last\_name varchar(40),email varchar(40) unique not null,

phone\_no int not null,DoJ date,job\_id int,salary int,commission\_pct int,manager\_id int,dept\_id int,

foreign key(dept\_id) references dept01(dept\_id), foreign key (job\_id) references jobs(job\_id));

insert into employees01 values(501,'pravin','lende','pravin@gmail.com',98765432101,date '2022-01-02',21,50000,null,401,1);

insert into employees01 values(502,'suyog','pawar','suyog@gmail.com',98765432102,date '2022-01-03',22,40000,null,403,2);

insert into employees01 values(503,'parth','vade','parth@gmail.com',98765432103,date '2022-01-04',23,30000,null,402,5);

insert into employees01 values(504,'omkar','ukirde','omkar@gmail.com',98765432104,date '2022-01-05',24,20000,null,405,3);

insert into employees01 values(505,'ram','aher','ram@gmail.com',98765432105,date '2022-01-06',25,20000,60000,null,406,4);

insert into employees01 values(506,'mayur','thorat','mayur@gmail.com',98765432106,date '2016-01-01',25,70000,null,403,6);

insert into employees01 values(507,'rahul','waman','rahul@gmail.com',98765432107,date '2022-02-01',21,50000,null,402,6);

insert into employees01 values(508,'sham','sonawane','sham@gmail.com',98765432108,date '2022-03-01',22,40000,null,404,6);

insert into employees01 values(509,'tejas','ware','tejas@gmail.com',98765432109,date '2022-04-01',23,20000,null,401,6);

insert into employees01 values(510,'rohit','wanve','rohit@gmail.com',98765432110,date '2022-05-01',24,20000,null,402,4);

insert into employees01 values(511,'abhi','kadlag','abhi@gmail.com',98765432111,date '2022-07-01',25,20000,null,403,5);

insert into employees01 values(512,'rushi','gadekar','rushi@gmail.com',98765432112,date '2017-01-01',25,70000,null,406,2);

insert into employees01 values(513,'vikas','kale','vikas@gmail.com',98765432113,date '2022-02-01',21,60000,null,404,3);

insert into employees01 values(514,'shreyash','sanap','shreyash@gmail.com',98765432114,date '2022-03-01',22,50000,null,405,1);

insert into employees01 values(515,'pramod','avhad','pramod@gmail.com',98765432115,date '2022-04-01',23,40000,null,401,4);

insert into employees01 values(516,'shraddha','kulkarni','shraddha@gmail.com',98765432116,date '2022-05-01',24,20000,null,406,4);

insert into employees01 values(517,'vaibhav','mohol','vaibhav@gmail.com',98765432117,date '2022-06-01',25,20000,null,404,3);

insert into employees01 values(518,'shubham','dube','shubham@gmail.com',98765432118,date '2018-01-01',25,70000,null,403,3);

insert into employees01 values(519,'amol','kolhe','amol@gmail.com',98765432119,date '2020-01-01',21,60000,null,402,6);

insert into employees01 values(520,'kartik','bhosale','kartik@gmail.com',98765432120,date '2021-01-01',22,50000,null,401,2);

insert into employees01 values(521,'priyanka','bhusal','priyanka@gmail.com',98765432121,date '2022-09-01',23,40000,null,406,3);

insert into employees01 values(522,'krushana','jagtap','krushana@gmail.com',98765432122,date '2022-10-01',24,30000,null,403,1);

insert into employees01 values(523,'akash','bhusari','akash@gmail.com',98765432123,date '2022-10-01',25,20000,null,402,2);

insert into employees01 values(524,'nikhil','bidwe','nikhil@gmail.com',98765432124,date '2010-10-01',25,100000,null,401,3);

select \* from employees01

create table job\_history(employee\_id int,start\_date date,end\_date date,job\_id int,dept\_id int,

foreign key(employee\_id)references employees01(emp\_id));

describe job\_history

insert into job\_history values(501,date'2014-01-01',date'2016-01-01',22,1);

insert into job\_history values(502,date'2021-01-01',date'2023-01-01',23,1);

insert into job\_history values(503,date'2021-01-01',date'2023-01-01',23,1)

insert into job\_history values(504,date'2021-01-01',date'2023-01-01',24,1);

insert into job\_history values(509,date'2021-01-01',date'2023-01-01',25,2);

insert into job\_history values(506,date'2021-01-01',date'2023-01-01',25,1);

insert into job\_history values(507,date'2012-01-01',date'2015-01-01',22,2);

insert into job\_history values(508,date'2011-01-01',date'2020-01-01',23,2);

select \* from job\_history

---Q1.Each employee's department---

select d.dept\_id, d.dept\_name, e.emp\_id, e.first\_name

from dept01 d

join employees01 e

on d.dept\_id = e.dept\_id;

---Q2.All managers and employees they manage---

select e2.manager\_id,e1.first\_name,e1.emp\_id

from employees01 e1 ,employees01 e2

where e1.manager\_id=e2.manager\_id;

--Q3.Number of employees managed by each manager----

select manager\_id,count(emp\_id) as tcount from employees01 group by manager\_id;

---Q4.Number of employee at each job title---

select j.job\_id,j.job\_title,count(e.emp\_id) as tcount

from jobs j,employees01 e

where j.job\_id= e.job\_id

group by j.job\_title,j.job\_id;

---Q5.Comparison between employee salaries with the salaries set by the company---

select j.job\_id,min(e.salary) as min\_actual\_salary,max(e.salary) as max\_actual\_salary,avg(e.salary) as avg\_actual\_salary

from jobs j,employees01 e

where j.job\_id= e.job\_id

group by j.job\_id order by j.job\_id;

---Q6. Promoted employees---

select

jh.employee\_id,

e.first\_name,

e.last\_name,

jh.start\_date,

jh.end\_date,

j1.job\_title as previous\_job,

j2.job\_title as new\_job

from job\_history jh

join employees01 e on jh.employee\_id = e.emp\_id

join jobs j1 on jh.job\_id = j1.job\_id

join jobs j2 on e.job\_id = j2.job\_id

where j1.min\_salary < j2.min\_salary

order by jh.employee\_id;

---Q7. number of employee and salary information at each department---

select d.dept\_id,count(e.emp\_id) as tcount,avg(e.salary) as avg\_actual\_salary,sum(e.salary) as sum\_salary

from dept01 d,employees01 e

where d.dept\_id= e.dept\_id

group by d.dept\_id order by d.dept\_id;

---Q8.number of employees at each city and avg salary---

select c.country\_id,count(e.emp\_id) as num\_employees,avg(e.salary) as avg\_actual\_salary

from dept01 d join employees01 e

on d.dept\_id= e.dept\_id

join location l

on d.location\_id= l.location\_id

join country c

on c.country\_id=l.country\_id

group by c.country\_id;

---Q9. Turnover rate for each manager---

SELECT e.manager\_id,

count(distinct e.emp\_id) AS total\_managed,

count(distinct jh.employee\_id) AS employees\_left,

(count(distinct jh.employee\_id) \* 100.0 / count(distinct e.emp\_id)) as turnover\_rate

from employees01 e

left join job\_history jh on e.emp\_id = jh.employee\_id

group by e.manager\_id

order by turnover\_rate desc;