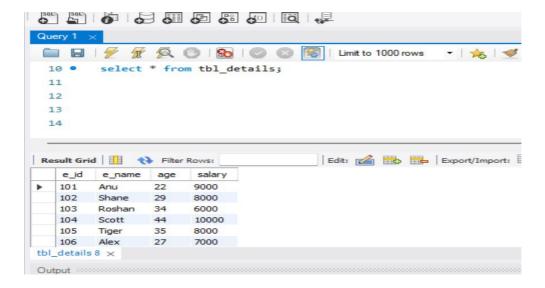# LAB ASSIGNMENT

DATABASE LAB
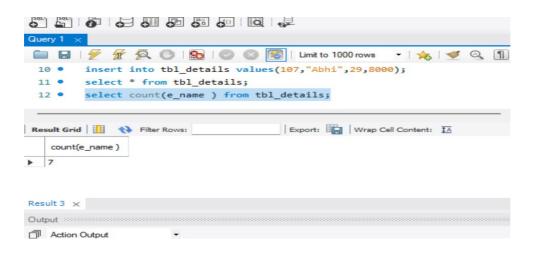
TKM COLLEGE OF ENGINEERING

NAME: JESLIN JOHNSON

ROLL NO:223

MANDATORY ASSIGNMENT

CREATE database db_aggemp;

use db_aggemp;

CREATE table tbl_details

(e_id int(10)primary key,

e_name varchar(15) not null,

age int(3),

salary float(15));

insert into tbl_details values(101,"Anu",22,9000);

insert into tbl_details values(102,"Shane",29,8000);

insert into tbl_details values(103,"Roshan",34,6000);

insert into tbl_details values(104,"Scott",44,10000);

insert into tbl_details values(105,"Tiger",35,8000);

insert into tbl_details values(106,"Alex",27,7000);

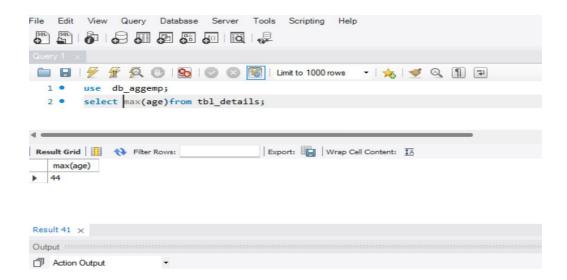insert into tbl_details values(107,"Abhi",29,8000);

1.select * from tbl_details;
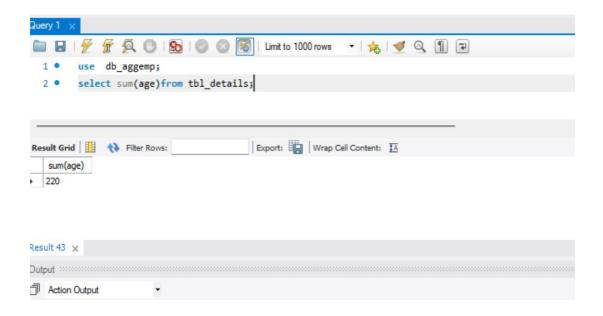
2. select count(e_name) from tbl_details;
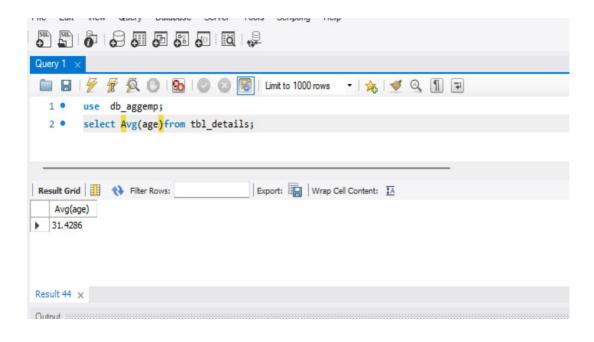

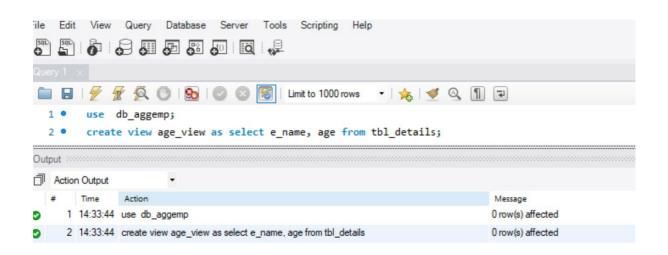3. select max(age) from tbl_details;

4. select min(age) from tbl_details;

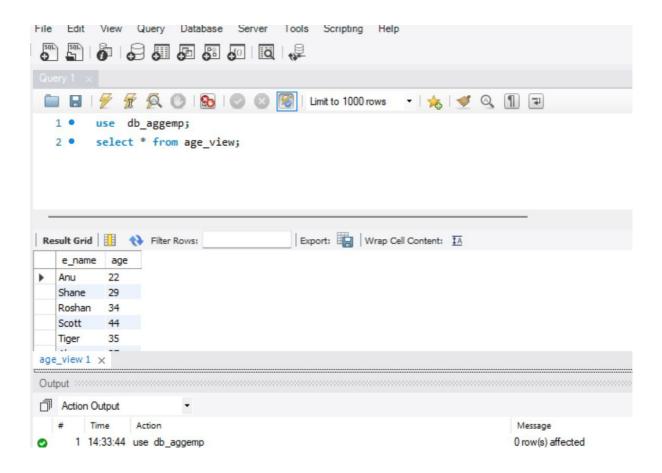5. select sum(age)from tbl_details;
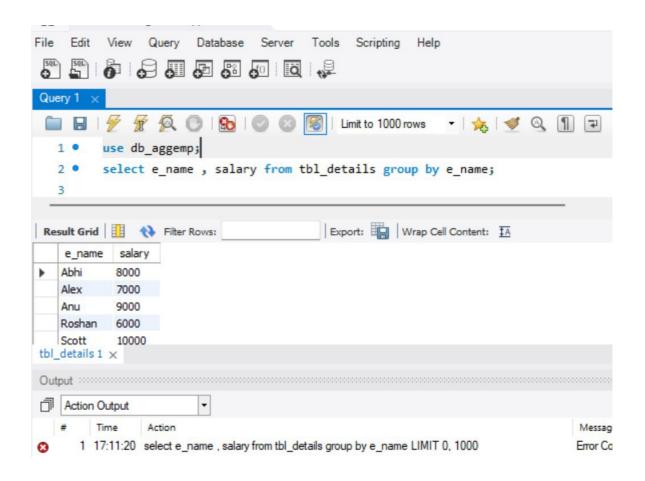

6. select Avg(age)from tbl_details;

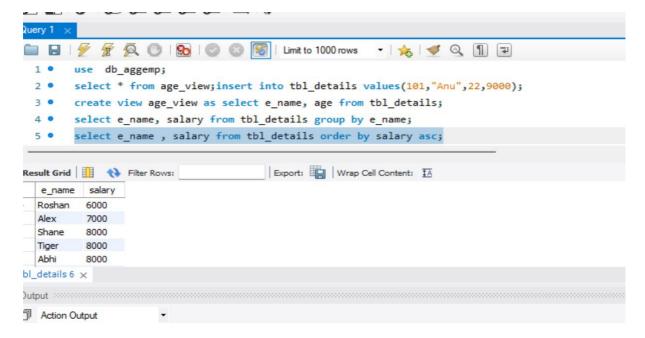7. create view age_view as select e_name, age from tbl_details;
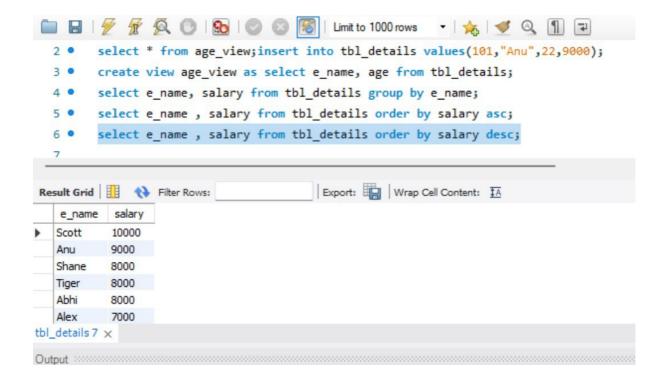

8. select *from details_view;

9. select e_name , salary from tbl_details group by e_name;

10. select e_name , salary from tbl_details order by salary asc; OR

select e_name , salary from tbl_details order by salary ;

11. select e_name , salary from tbl_details order by salary DESC;

```
2 ●    select * from age_view;insert into tbl_details values(101,"Anu",22,9000);
3 ●    create view age_view as select e_name, age from tbl_details;
4 ●    select e_name, salary from tbl_details group by e_name;
5 ●    select e_name , salary from tbl_details order by salary asc;
6 ●    select e_name , salary from tbl_details order by salary desc;
7
```

Result Grid | ⊞ | ↻ Filter Rows: [   ] | Export: ▦ | Wrap Cell Content: ‡A

e_name	salary
Scott	10000
Anu	9000
Shane	8000
Tiger	8000
Abhi	8000
Alex	7000

tbl_details 7 ×

Output

GROUP 4

AIM:

(i) Consider the database for a college and design an ER diagram. Write the query for the following.

(ii) Create the tables:
(iii)
(iv) Student (sid, sname,sex, dob,dno) Department (dno, dname)

(v) Faculty (F_id, fname, designation, salary,dno) Course (cid, cname, credits,dno)

(vi) Register(sid,cid,sem) Teaching(f_id,cid,sem) Hostel(hid,hname,seats,)

(vii)   Include the necessary constraints NOT NULL, DEFAULT, CHECK, and PRIMARY KEY, UNIQUE.
(viii)
    (1.i)Create a databasecollege

(ix)
    (1.i)Use college as the currentdatabase

(1.ii)   Display all the tables in collegedatabase

(x)

(1.i)Describe the structure of alltables

(xi)

(1.i)Modify the student table to add a new field'grade'

(xii)   Consider the database for a college. Write the query for the following.
(xiii)
  1. Insert at least 5 tuples into each table.

(xiv)
  1. List the details of students in the ascending order of date of birth
(xv)
  1. Display the details of students from computer department

(xvi)
  1. List the faculties in the descending order of salary

(xvii)
  1. Display the total number of students in each department
(xviii)
  1. Display the total number of faculties in each department with salary greater than 25000

(xix)

(xx)   <u>CODE:</u>

(xxi)

(xxii)   create database college;

(xxiii)   use college;

(xxiv)

(xxv)   create table department(dno varchar(20) not null,dname varchar(20) not null,primary key(dno));

(xxvi)   create table student(sid varchar(20) not null,sname varchar(20) not null,sex varchar(10) not null,dob date not null,dno varchar(20) not null,primary key(sid),foreign key(dno) references department(dno) on delete cascade);

(xxvii)   create table faculty(fid varchar(20) not null,fname varchar(30) not null,designation varchar(20) not null,salary integer(10) check (salary>5000 and salary <=150000),dno varchar(20) not null,primary key(fid),foreign key(dno) references department(dno) on delete cascade);

(xxviii)   create table course(cid varchar(20) not null,cname varchar(20) not null,credits integer(10) not null,dno varchar(20) not null,primary key(cid),foreign key(dno) references department(dno) on delete cascade);

(xxix)   create table register(sid varchar(20) not null,cid varchar(20) not null,sem varchar(10) not null,foreign key(sid) references student(sid) on delete cascade,foreign key(cid) references course(cid) on delete cascade);

(xxx)   create table teaching(fid varchar(20) not null,cid varchar(20) not null,sem varchar(10) not null,foreign key(fid) references faculty(fid) on delete cascade,foreign key(cid) references course(cid) on delete cascade);

(xxxi)   create table hostel(hid varchar(20) not null,hname varchar(20) not null default "modern hostel",seats integer(20) not null,unique(hid));

(xxxii)

(xxxiii)   insert into department values("d001","computer");

(xxxiv)   insert into department values("d002","maths");

(xxxv)   insert into department values("d003","english");

(xxxvi)   insert into department values("d004","science");

(xxxvii)   insert into department values("d005","humanities");

(xxxviii)   insert into student values("s001","sharanya","f","1998-12-26","d001");

(xxxix)   insert into student values("s002","sham","m","1997-01-16","d002");

(xl)   insert into student values("s003","jacob","m","1998-12-06","d001");

(xli)   insert into student values("s004","cathy","f","1998-11-23","d003");

(xlii)   insert into student values("s005","ajay","m","1998-03-03","d004");

(xliii)   insert into faculty values("f001","manav","associate professor",50000,"d001");

(xliv)   insert into faculty values("f002","asha","associate professor",40000,"d002");

(xlv)   insert into faculty values("f003","sree","asisstant professor",100000,"d003");

(xlvi)   insert into faculty values("f004","akash","associate professor",50000,"d004");

(xlvii)   insert into faculty values("f005","lena","associate professor",50000,"d005");

(xlviii)   insert into course values("c001","differenciation",10,"d002");

(xlix)   insert into course values("c002","java",10,"d001");

(l)   insert into course values("c003","anatomy",10,"d004");

(li)   insert into course values("c004","grammar",5,"d003");

(lii)   insert into course values("c005","networks",10,"d001");

(liii)   insert into course values("c006","basics humanities",10,"d005");

(liv)   insert into register values("s001","c002","1");

(lv)   insert into register values("s001","c005","1");

(lvi)   insert into register values("s002","c001","2");

(lvii)   insert into register values("s005","c003","1");

(lviii)   insert into register values("s004","c004","2");

(lix)   insert into register values("s003","c002","1");

(lx)   insert into register values("s006","c006","1");

(lxi)   insert into teaching values("f001","c002","1");

(lxii)   insert into teaching values("f002","c001","2");

(lxiii)   insert into teaching values("f003","c004","2");

(lxiv)   insert into teaching values("f004","c003","1");

(lxv)   insert into teaching values("f005","c006","1");

(lxvi)   insert into hostel values("h001","rose hostel",20);

(lxvii)   insert into hostel values("h002","general hostel",20);

(lxviii)   insert into hostel values("h003","boys hostel",20);

(lxix)   insert into hostel values("h004","working hostel",20);

(lxx)   insert into hostel values("h005","mixed hostel",25);

(lxxi)

(lxxii)   select * from department;

(lxxiii)   select * from student;

(lxxiv)   select * from faculty;

(lxxv)   select * from course;

(lxxvi)   select * from teaching;

(lxxvii)   select * from register;

(lxxviii)

(lxxix)   alter table student add grade varchar(5) not null;

(lxxx)   insert into student values("s006","lalitha","f","1998-04-08","d005","A");

(lxxxi)   update student set grade="A" where sid="s001";

(lxxxii)   update student set grade="A" where sid="s002";

(lxxxiii)   update student set grade="B" where sid="s003";

(lxxxiv)   update student set grade="B+" where sid="s004";

(lxxxv)　　update student set grade="A+" where sid="s005";

(lxxxvi)

(lxxxvii)　select * from student order by dob;

(lxxxviii)

(lxxxix)　select * from student where dno="d001";

(xc)

(xci)　　select * from faculty order by salary desc;

(xcii)

(xciii)　　select count(sid) as "no of student",dno from student group by dno;

(xciv)

(xcv)　　select count(fid) as "no of faculty",dno from faculty group by dno having salary>=25000;
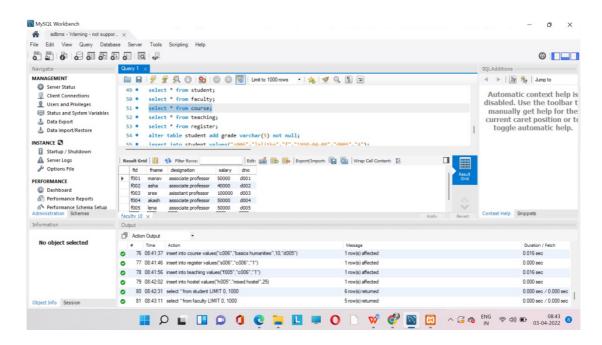
(xcvi)

(xcvii)

(xcviii)

(xcix)　　**OUTPUT:**

(c)

(ci)

(cii)

(ciii)

(civ)

(cv)

(cvi)

(cvii)

(cviii)

(cix)

(cx)

(cxi)

(cxii)
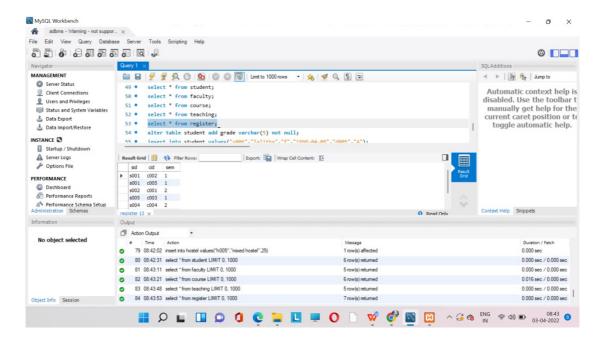
(cxiii)

(cxiv)

(cxv)

(cxvi)

(cxvii)