INSERT INTO department VALUES('Mechanical','ENG',1000000);

INSERT INTO department VALUES('Civil','ENG',1000000);

INSERT INTO department VALUES('Software','COM',1000000);

INSERT INTO department VALUES('Computer Science','COM',1000000);

INSERT INTO department VALUES('Chemical','ENG',1000000);

INSERT INTO department VALUES('Industrial','ENG',1000000);

INSERT INTO department VALUES('Information System','COM',1000000);

INSERT INTO department VALUES('Information Science','COM',1000000);

INSERT INTO department VALUES('Biological','ENG',1000000);

INSERT INTO department VALUES('Textile','ENG',1000000);

INSERT INTO course VALUES('CSC01','C++','Computer Science',5);

INSERT INTO course VALUES('Math08','Calclus','Industrial',5);

INSERT INTO course VALUES('SENG01','INTRO','software',5);

INSERT INTO course VALUES('CSC02','OS','software',5);

INSERT INTO course VALUES('MENG01','Mecanics','Mechanical',5);

INSERT INTO course VALUES('SENG02','Android','software',5);

INSERT INTO course VALUES('CSC03','C','Information System',5);

INSERT INTO course VALUES('CSC04','C#','Computer',5);

INSERT INTO course VALUES('CSC05','Java','software',5);

INSERT INTO course VALUES('CSC06','DataBase','software',5);

INSERT INTO instructor VALUES('1010','Habib','software',10000);

INSERT INTO instructor VALUES('1011','Mafuiz','software',15000);

INSERT INTO instructor VALUES('1012','Abebe','Chemical',20000);

INSERT INTO instructor VALUES('1013','Alex','Computer Science',10000);

INSERT INTO instructor VALUES('1014','Yihun','software',60000);

INSERT INTO instructor VALUES('1015','Habib','Mechanical',10000);

INSERT INTO instructor VALUES('1016','Sami','software',10000);

INSERT INTO instructor VALUES('1017','Ruth','Chemical',40000);

INSERT INTO instructor VALUES('1018','Habib','Computer',10000);

INSERT INTO instructor VALUES('1019','Habib','Civil',30000);

INSERT INTO section VALUES('SENG01','sec1','1st',2010,’COM’,’COM01’,’A204’);

INSERT INTO section VALUES('SENG01','sec2','1st',2010,’COM’,’COM01’,’A204’);

INSERT INTO section VALUES('SENG01','sec1','2st',2010,’COM’,’COM01’,’A204’);

INSERT INTO section VALUES('SENG01','sec2','2st',2010,’COM’,’COM01’,’A204’);

INSERT INTO section VALUES('MENG01','sec1','1st',2010,’ENG’,’ENG01’,’A204’);

INSERT INTO section VALUES(‘MENG01’,'sec2','1st',2010,’ENG’,’ENG01’,’A204’);

INSERT INTO section VALUES(‘MENG01’,'sec1','2st',2010,’ENG’,’ENG01’,’A204’);

INSERT INTO section VALUES('MENG01','sec2','2st',2010,’ENG’,’ENG01’,’A204’);

INSERT INTO section VALUES('CSC03','sec1','1st',2010,’COM’,’COM01’,’A204’);

INSERT INTO section VALUES('CSC03','sec2','1st',2010,’COM’,’COM01’,’A204’);

INSERT INTO section VALUES('CSC03','sec1','2st',2010,’COM’,’COM01’,’A204’);

INSERT INTO section VALUES('CSC03','sec2','2st',2010,’COM’,’COM01’,’A204’);

INSERT INTO teaches VALUES('1010','SENG01','sec1',’1st’,2010);

INSERT INTO teaches VALUES('1010','SENG01','sec2',’1st’,2010);

INSERT INTO teaches VALUES('1011','CSC03','sec1',’1st’,2010);

INSERT INTO teaches VALUES('1011','CSC03','sec2',’1st’,2010);

INSERT INTO teaches VALUES('1015','MENG01','sec1',’1st’,2010);

INSERT INTO teaches VALUES('1015','MENG01','sec2',’1st’,2010);

INSERT INTO teaches VALUES('1013','CSC04','sec1',’1st’,2010);

INSERT INTO teaches VALUES('1013','CSC04','sec2',’1st’,2010);

1. [SELECT](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/5.5/en/select.html" \t "http://localhost/phpmyadmin/mysql_doc) name FROM instructor;
2. [SELECT](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/5.5/en/select.html" \t "http://localhost/phpmyadmin/mysql_doc) dept Name FROM instructor;
3. [SELECT](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/5.5/en/select.html" \t "http://localhost/phpmyadmin/mysql_doc) DISTINCT dept Name FROM instructor;
4. SELECT name FROM instructor WHERE dept Name='Computer Science'&&salary>70000;
5. [SELECT](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/5.5/en/select.html" \t "http://localhost/phpmyadmin/mysql_doc) name,dept Name,building FROM instructor,section;
6. [SELECT](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/5.5/en/select.html" \t "http://localhost/phpmyadmin/mysql_doc) name,course Id FROM teaches,instructor;
7. [SELECT](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/5.5/en/select.html" \t "http://localhost/phpmyadmin/mysql_doc) name FROM instructor WHERE dept Name='Information System' &&salary>([SELECT](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/5.5/en/select.html" \t "http://localhost/phpmyadmin/mysql_doc) [MIN](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/5.5/en/group-by-functions.html" \l "function_min" \t "http://localhost/phpmyadmin/mysql_doc)(salary) FROM instructor);
8. [SELECT](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/5.5/en/select.html" \t "http://localhost/phpmyadmin/mysql_doc) name FROM instructor WHERE dept Name=’Physics’ ORDER BY name;
9. [SELECT](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/5.5/en/select.html" \t "http://localhost/phpmyadmin/mysql_doc) \* FROM instructor ORDER BY salary DESC;
10. [SELECT](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/5.5/en/select.html" \t "http://localhost/phpmyadmin/mysql_doc) name FROM instructor WHERE salary>10000 &&salary<20000;
11. [SELECT](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/5.5/en/select.html" \t "http://localhost/phpmyadmin/mysql_doc) \* FROM `instructor` WHERE salary [IS](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/5.5/en/comparison-operators.html" \l "operator_is" \t "http://localhost/phpmyadmin/mysql_doc) Null;
12. [SELECT](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/5.5/en/select.html" \t "http://localhost/phpmyadmin/mysql_doc) [AVG](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/5.5/en/group-by-functions.html" \l "function_avg" \t "http://localhost/phpmyadmin/mysql_doc)(salary) FROM instructor;
13. [SELECT](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/5.5/en/select.html" \t "http://localhost/phpmyadmin/mysql_doc) [AVG](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/5.5/en/group-by-functions.html" \l "function_avg" \t "http://localhost/phpmyadmin/mysql_doc)(salary) FROM instructor WHERE dept Name='Computer Science';
14. [SELECT](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/5.5/en/select.html" \t "http://localhost/phpmyadmin/mysql_doc) [COUNT](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/5.5/en/group-by-functions.html" \l "function_count" \t "http://localhost/phpmyadmin/mysql_doc)(ID) FROM teaches WHERE [year](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/5.5/en/date-and-time-types.html" \t "http://localhost/phpmyadmin/mysql_doc)=2016 &&semester='Spring';
15. [SELECT](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/5.5/en/select.html" \t "http://localhost/phpmyadmin/mysql_doc) dept Name, [AVG](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/5.5/en/group-by-functions.html" \l "function_avg" \t "http://localhost/phpmyadmin/mysql_doc)(salary) FROM instructor GROUP BY dept Name;
16. [SELECT](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/5.5/en/select.html" \t "http://localhost/phpmyadmin/mysql_doc) dept Name,[AVG](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/5.5/en/group-by-functions.html" \l "function_avg" \t "http://localhost/phpmyadmin/mysql_doc)(salary) FROM instructor WHERE ([SELECT](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/5.5/en/select.html" \t "http://localhost/phpmyadmin/mysql_doc) [AVG](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/5.5/en/group-by-functions.html" \l "function_avg" \t "http://localhost/phpmyadmin/mysql_doc)(salary) FROM instructor) >45000 GROUP BY dept Name;
17. [UPDATE](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/5.5/en/update.html" \t "http://localhost/phpmyadmin/mysql_doc) instructor [SET](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/5.5/en/set.html" \t "http://localhost/phpmyadmin/mysql_doc) salary=salary+(salary\*(0.05/12));
18. [UPDATE](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/5.5/en/update.html" \t "http://localhost/phpmyadmin/mysql_doc) instructor [SET](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/5.5/en/set.html" \t "http://localhost/phpmyadmin/mysql_doc) salary=salary+(salary\*(0.05/12)) WHERE salary<20000;
19. [UPDATE](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/5.5/en/update.html" \t "http://localhost/phpmyadmin/mysql_doc) instructor [SET](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/5.5/en/set.html" \t "http://localhost/phpmyadmin/mysql_doc) salary=salary+(salary\*(0.05/12)) WHERE salary<=100000;

[UPDATE](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/5.5/en/update.html" \t "http://localhost/phpmyadmin/mysql_doc) instructor [SET](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/5.5/en/set.html" \t "http://localhost/phpmyadmin/mysql_doc) salary=salary+(salary\*(0.03/12))  WHERE salary>100000;

1. π name (instructor)
2. π deptName (instructor)
3. π deptName (instructor)
4. π name(σ deptName=’Computer Science’ AND salary>70000(instructor))
5. INSTRUCTOR\_BUILDING ← instructor X deptName=deptName (department)

π name,deptName,building (INSTRUCTOR\_BUILDING)

1. INSTUCTOR\_TEACHES ← instructor X id=id (teaches)

π name,courseId (INSTRUCTOR\_TEACHES)

1. MIN\_SALARY ← ℑ MINIMUM salary(instructor)

π name (σ deptName=’Information System’ AND salary>MIN\_SALARY (instructor))

3. π name (σ salary>10000 AND salary<20000 (instructor))
4. π name (σ salary=null (instructor))
5. ℑ AVERAGE salary(instructor)
6. COM ← σ deptName=’Computer Science’ (instructor)

ℑ AVERAGE salary(COM)

1. SPRING ← σ deptName=’Computer Science’ (teaches)

ℑ COUNT ID(SPRING)

1. deptName ℑ AVERAGE salary(instructor)