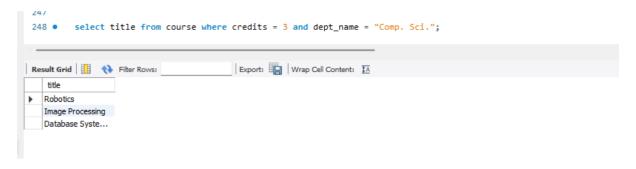
S20230010225

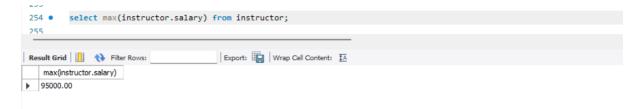
DBMS LAB 11 Assignment screenshots

Q1 - a



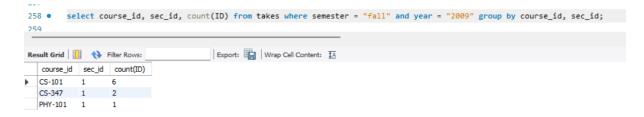
Q1 – b

Q1-c



Q1-d

Q1 - e



Q1 - f



Q1-g

```
select course_id, sec_id from (select course_id, sec_id, count(id) as enrollment from takes where semester = 'fall' and year = 2009
group by course_id, sec_id) as sec_enrollments where enrollment = (select max(enrollment) from (select count(id) as enrollment from
takes where semester = 'fall' and year = 2009 group by course_id, sec_id) as max_enroll);

265
266
Result Grid 
A Filter Rows:

| Export: | Wrap Cell Content: | Export: | Export: | Wrap Cell Content: | Export: |
```

Q2 - a

```
update instructor set salary = salary*1.1 where dept_name = "comp. sci.";

267

268

Output

# Time | Action

158 16:07:25 | select max(enrollment) as max_enrollment from (select count(id) as enrollment fro... |

159 16:13:01 | select course_id, sec_id from (select course_id, sec_jd, count(ID) from takes wh... |

160 16:13:12 | select course_id, sec_id from (select course_id, sec_jd, count(ID) from takes wh... |

161 16:14:05 | select course_id, sec_id from (select course_id, sec_id, count(ID) from takes wh... |

162 16:18:40 | update instructor set salary = salary*1.1 where dept_name = "comp. sci." |

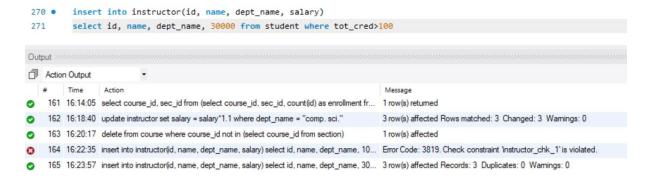
3 row(s) affected Rows matched: 3 Changed: 3 Warnings: 0
```

Q2 - b

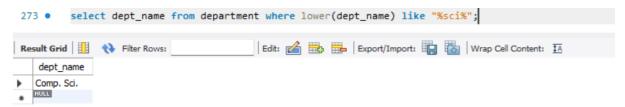


Q2-c

Have set salary as 30000 due to constraint defined in schema



Q3

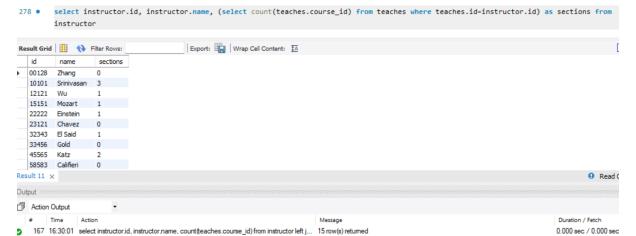


Q4 - a

275 • select instructor.id, instructor.name, count(teaches.course_id) from instructor left join teaches on instructor.id = teaches.id
276 group by instructor.id, instructor.name



Q4 - b



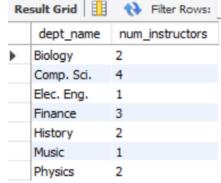
0.000 sec / 0.000 sec

168 16:32:38 select instructor.id, instructor.name, (select count(teaches.course_id) from teach... 15 row(s) returned

Q4-c

```
280 •
         select s.course_id, s.sec_id, s.semester, s.year,
         ifnull(i.name, '-') as instructor_name
281
         from section s
282
         left join teaches t on s.course_id = t.course_id
283
284
         and s.sec_id = t.sec_id
         and s.semester = t.semester
285
         and s.year = t.year
286
         left join instructor i on t.id = i.id
287
         where s.semester = 'spring'
288
         and s.year = 2010;
289
290
                                           Export: Wrap Cell Content: TA
Result Grid
             Filter Rows:
   course id
             sec id semester
                             year
                                    instructor_name
  CS-101
            1
                    Spring
                             2010
                                   Katz
  FIN-201
           1
                    Spring
                             2010
                                   Wu
  MU-199
                    Spring
                             2010
                                   Mozart
            1
                                  El Said
  HIS-351 1
                    Spring
                             2010
   CS-319
            2
                    Spring
                             2010
                                   Brandt
   CS-319
                             2010
                                   Katz
         1
                    Spring
  CS-315
            1
                    Spring
                             2010
                                   Srinivasan
```

Q4-d



Q5 - a

```
297 •
       select student.id, student.name, student.dept_name, student.tot_cred, takes.course_id, takes.sec_id, takes.semester,
298
        takes.year, takes.grade
299
        from student, takes
300
        where student.id = takes.id
301
       union all
302
      select student.id, student.name, student.dept_name, student.tot_cred, null, null, null, null, null
303
        from student
304
        where student.id not in (select id from takes);
                                         Export: Wrap Cell Content: IA
name dept_name tot_cred course_id sec_id semester year grade
  id
  00128 Zhang Comp. Sci. 102 CS-101 1 Fall 2009 A
00128 Zhang Comp. Sci. 102 CS-347 1 Fall 2009 A-
 00128 Zhang
  12345 Shankar Comp. Sci. 32 CS-101 1 Fall 2009 C
12345 Shankar Comp. Sci. 32 CS-190 2 Spring 2009 A
  12345 Shankar Comp. Sci. 32 CS-315 1 Spring 2010 A
12345 Shankar Comp. Sci. 32 CS-347 1 Fall 2009 A
  19991 Brandt
                 History
                            80
                                     HTS-351
                                                      Spring
                                                                2010 B
```

Q5 - b

```
306 • select student.id, student.name, student.dept_name, student.tot_cred, takes.course_id, takes.sec_id, takes.semester,
         takes.year, takes.grade
 308
        from student, takes
 309
       where student.id = takes.id
 310
        union all
 311
        select student.id, student.name, student.dept_name, student.tot_cred, null, null, null, null, null, null
 312
 313
        where student.id not in (select id from takes)
314
        union all
 315
         select null, null, null, null, takes.course_id, takes.sec_id, takes.semester, takes.year, takes.grade
 316
        from takes
 317
         where takes id not in (select id from student).
Export: Wrap Cell Content: 1A
        name dept_name tot_cred course_id sec_id semester year grade
  id
▶ 00128
          Zhang
                            102
                                    CS-101
                                                    Fall
                                                             2009
                  Comp. Sci.
   00128 Zhang Comp. Sci. 102 CS-347 1 Fall 2009 A
   12345 Shankar Comp. Sci. 32 CS-101 1 Fall 2009 C
12345 Shankar Comp. Sci. 32 CS-190 2 Spring 2009 A
   12345 Shankar Comp. Sci. 32 CS-315 1 Spring 2010 A
12345 Shankar Comp. Sci. 32 CS-347 1 Fall 2009 A
   19991 Brandt History
                                    HIS-351 1
                                                           2010 B
                                                   Spring
```

Q6

```
329
             signal sqlstate '45000' set message_text = 'loan amount cannot exceed 10 lakhs';
      end//
331
332 • create trigger before_update
333
       before update on bankcustomers
334
       for each row
335 ⊝ begin
336 🖕
         if new.loan > 1000000 then
337
          signal sqlstate '45000' set message_text = 'loan amount cannot exceed 10 lakhs';
         end if;
338
      end//
339
340
      delimiter;
341
342 • insert into bankcustomers (accnum, name, loan) values (1, 'shriansh', 1500000);
```

Output				
	Action	n Output	•	
	#	Time	Action	Message
0	178	17:02:01	$select\ student.id,\ student.name,\ student.dept_name,\ student.tot_cred,\ takes.cou$	23 row(s) returned
0	179	17:11:18	create table bankcustomers ($$ accnum int primary key, $$ name varchar(255), \ldots	0 row(s) affected
0	180	17:11:18	create trigger before insert before insert on bankcustomers for each row begin $ \dots$	0 row(s) affected
0	181	17:11:18	create trigger before update before update on bankcustomers for each row begi	0 row(s) affected
*	182	17:11:18	insert into bankcustomers (accnum, name, loan) values (1, 'shriansh', 1500000)	Error Code: 1644, loan amount cannot exceed 10 lakhs