

```
1 [2024-09-17 13:02:43] Connected
2 university> use university
3 [2024-09-17 13:02:43] completed in 4 ms
4 university> create table classroom
5           (building      varchar(15),
6            room_number   varchar(7),
7            capacity     numeric(4,0),
8            primary key (building, room_number)
9           )
10 [2024-09-17 13:02:43] completed in 67 ms
11 university> create table department
12           (dept_name    varchar(20),
13            building     varchar(15),
14            budget       numeric(12,2) check (
15              budget > 0),
16              primary key (dept_name)
17           )
18 [2024-09-17 13:02:43] completed in 33 ms
19 university> create table course
20           (course_id    varchar(8),
21            title        varchar(50),
22            dept_name   varchar(20),
23            credits      numeric(2,0) check (
24              credits > 0),
25              primary key (course_id),
26              foreign key (dept_name) references
27              department(dept_name)
28              on delete set null
29           )
30 [2024-09-17 13:02:43] completed in 50 ms
31 university> create table instructor
32           (ID          varchar(5),
33            name        varchar(20) not null,
34            dept_name   varchar(20),
35            salary      numeric(8,2) check (
36              salary > 29000),
37            primary key (ID),
38            foreign key (dept_name) references
39              department(dept_name)
40              on delete set null
41           )
```

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37 [2024-09-17 13:02:43] completed in 44 ms
38 university> create table section
39         (course_id      varchar(8),
40          sec_id        varchar(8),
41          semester      varchar(6)
42              check (semester in ('Fall', 'Winter
43                  ', 'Spring', 'Summer')),
44                  year        numeric(4,0) check (year
45                  > 1701 and year < 2100),
46                  building    varchar(15),
47                  room_number  varchar(7),
48                  time_slot_id varchar(4),
49                  primary key (course_id, sec_id, semester
50                  , year),
51                  foreign key (course_id) references
52                  course(course_id)
53                  on delete cascade,
54                  foreign key (building, room_number)
55                  references classroom(building, room_number)
56                  on delete set null
57                  )
58 [2024-09-17 13:02:44] completed in 53 ms
59 university> create table teaches
60         (ID          varchar(5),
61          course_id    varchar(8),
62          sec_id        varchar(8),
63          semester      varchar(6),
64          year        numeric(4,0),
65          primary key (ID, course_id, sec_id,
66          semester, year),
67          foreign key (course_id,sec_id, semester
68          , year) references section(course_id, sec_id,
69          semester, year)
70              on delete cascade,
71              foreign key (ID) references instructor(
72              ID)
73              on delete cascade
74              )
75 [2024-09-17 13:02:44] completed in 47 ms
76 university> create table student
77         (ID          varchar(5),
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69           name          varchar(20) not null,
70           dept_name     varchar(20),
71           tot_cred      numeric(3,0) check (
    tot_cred >= 0),
72           primary key (ID),
73           foreign key (dept_name) references
    department(dept_name)
74           on delete set null
75       )
76 [2024-09-17 13:02:44] completed in 41 ms
77 university> create table takes
78           (ID          varchar(5),
79           course_id    varchar(8),
80           sec_id       varchar(8),
81           semester     varchar(6),
82           year        numeric(4,0),
83           grade        varchar(2),
84           primary key (ID, course_id, sec_id,
    semester, year),
85           foreign key (course_id,sec_id, semester
    , year) references section(course_id, sec_id,
    semester, year)
86           on delete cascade,
87           foreign key (ID) references student(ID)
88           on delete cascade
89       )
90 [2024-09-17 13:02:44] completed in 49 ms
91 university> create table advisor
92           (s_ID         varchar(5),
93           i_ID         varchar(5),
94           primary key (s_ID),
95           foreign key (i_ID) references
    instructor (ID)
96           on delete set null,
97           foreign key (s_ID) references student (
    ID)
98           on delete cascade
99       )
100 [2024-09-17 13:02:44] completed in 43 ms
101 university> create table time_slot
102           (time_slot_id   varchar(4),
```

```
103          day          varchar(1),
104          start_hr      numeric(2) check (
105              start_hr >= 0 and start_hr < 24),
106          start_min      numeric(2) check (
107              start_min >= 0 and start_min < 60),
108          end_hr        numeric(2) check (end_hr
109              >= 0 and end_hr < 24),
110          end_min        numeric(2) check (
111              end_min >= 0 and end_min < 60),
112          primary key (time_slot_id, day,
113          start_hr, start_min)
114          )
115 [2024-09-17 13:02:44] completed in 36 ms
116 university> create table prereq
117          (course_id      varchar(8),
118          prereq_id      varchar(8),
119          primary key (course_id, prereq_id),
120          foreign key (course_id) references
121          course(course_id)
122          on delete cascade,
123          foreign key (prereq_id) references
124          course(course_id)
125          )
126 [2024-09-17 13:02:44] completed in 44 ms
127 [2024-09-17 13:03:05] Unsafe query: 'Delete'
128     statement without 'where' clears all data in the
129     table
130 [2024-09-17 13:03:19] 1 row affected in 15 ms
131 university> insert into classroom values ('Packard
132     ', '101', '500')
133 [2024-09-17 13:03:19] 1 row affected in 9 ms
134 university> insert into classroom values ('Painter
135     ', '514', '10')
136 [2024-09-17 13:03:19] 1 row affected in 9 ms
137 university> insert into classroom values ('Taylor
138     ', '3128', '70')
139 [2024-09-17 13:03:19] 1 row affected in 7 ms
140 university> insert into classroom values ('Watson
141     ', '100', '30')
142 [2024-09-17 13:03:19] 1 row affected in 8 ms
143 university> insert into classroom values ('Watson
144     ', '120', '50')
```

```
130 [2024-09-17 13:03:19] 1 row affected in 9 ms
131 university> insert into department values ('Biology
  ', 'Watson', '90000')
132 [2024-09-17 13:03:19] 1 row affected in 9 ms
133 university> insert into department values ('Comp.
  Sci.', 'Taylor', '100000')
134 [2024-09-17 13:03:19] 1 row affected in 9 ms
135 university> insert into department values ('Elec.
  Eng.', 'Taylor', '85000')
136 [2024-09-17 13:03:19] 1 row affected in 8 ms
137 university> insert into department values ('Finance
  ', 'Painter', '120000')
138 [2024-09-17 13:03:19] 1 row affected in 8 ms
139 university> insert into department values ('History
  ', 'Painter', '50000')
140 [2024-09-17 13:03:19] 1 row affected in 8 ms
141 university> insert into department values ('Music
  ', 'Packard', '80000')
142 [2024-09-17 13:03:19] 1 row affected in 8 ms
143 university> insert into department values ('Physics
  ', 'Watson', '70000')
144 [2024-09-17 13:03:19] 1 row affected in 8 ms
145 university> insert into course values ('BIO-101', '
  Intro. to Biology', 'Biology', '4')
146 [2024-09-17 13:03:19] 1 row affected in 10 ms
147 university> insert into course values ('BIO-301', '
  Genetics', 'Biology', '4')
148 [2024-09-17 13:03:19] 1 row affected in 9 ms
149 university> insert into course values ('BIO-399', '
  Computational Biology', 'Biology', '3')
150 [2024-09-17 13:03:19] 1 row affected in 9 ms
151 university> insert into course values ('CS-101', '
  Intro. to Computer Science', 'Comp. Sci.', '4')
152 [2024-09-17 13:03:19] 1 row affected in 7 ms
153 university> insert into course values ('CS-190', '
  Game Design', 'Comp. Sci.', '4')
154 [2024-09-17 13:03:19] 1 row affected in 8 ms
155 university> insert into course values ('CS-315', '
  Robotics', 'Comp. Sci.', '3')
156 [2024-09-17 13:03:19] 1 row affected in 8 ms
157 university> insert into course values ('CS-319', '
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157 Image Processing', 'Comp. Sci.', '3')
158 [2024-09-17 13:03:19] 1 row affected in 8 ms
159 university> insert into course values ('CS-347', '
    Database System Concepts', 'Comp. Sci.', '3')
160 [2024-09-17 13:03:19] 1 row affected in 7 ms
161 university> insert into course values ('EE-181', '
    Intro. to Digital Systems', 'Elec. Eng.', '3')
162 [2024-09-17 13:03:19] 1 row affected in 8 ms
163 university> insert into course values ('FIN-201', '
    Investment Banking', 'Finance', '3')
164 [2024-09-17 13:03:19] 1 row affected in 7 ms
165 university> insert into course values ('HIS-351', '
    World History', 'History', '3')
166 [2024-09-17 13:03:19] 1 row affected in 8 ms
167 university> insert into course values ('MU-199', '
    Music Video Production', 'Music', '3')
168 [2024-09-17 13:03:19] 1 row affected in 10 ms
169 university> insert into course values ('PHY-101', '
    Physical Principles', 'Physics', '4')
170 [2024-09-17 13:03:19] 1 row affected in 10 ms
171 university> insert into instructor values ('10101
    ', 'Srinivasan', 'Comp. Sci.', '65000')
172 [2024-09-17 13:03:19] 1 row affected in 10 ms
173 university> insert into instructor values ('12121
    ', 'Wu', 'Finance', '90000')
174 [2024-09-17 13:03:19] 1 row affected in 8 ms
175 university> insert into instructor values ('15151
    ', 'Mozart', 'Music', '40000')
176 [2024-09-17 13:03:19] 1 row affected in 8 ms
177 university> insert into instructor values ('22222
    ', 'Einstein', 'Physics', '95000')
178 [2024-09-17 13:03:19] 1 row affected in 8 ms
179 university> insert into instructor values ('32343
    ', 'El Said', 'History', '60000')
180 [2024-09-17 13:03:19] 1 row affected in 7 ms
181 university> insert into instructor values ('33456
    ', 'Gold', 'Physics', '87000')
182 [2024-09-17 13:03:20] 1 row affected in 8 ms
183 university> insert into instructor values ('45565
    ', 'Katz', 'Comp. Sci.', '75000')
184 [2024-09-17 13:03:20] 1 row affected in 8 ms
```

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185 university> insert into instructor values ('58583
  ', 'Califieri', 'History', '62000')
186 [2024-09-17 13:03:20] 1 row affected in 7 ms
187 university> insert into instructor values ('76543
  ', 'Singh', 'Finance', '80000')
188 [2024-09-17 13:03:20] 1 row affected in 9 ms
189 university> insert into instructor values ('76766
  ', 'Crick', 'Biology', '72000')
190 [2024-09-17 13:03:20] 1 row affected in 7 ms
191 university> insert into instructor values ('83821
  ', 'Brandt', 'Comp. Sci.', '92000')
192 [2024-09-17 13:03:20] 1 row affected in 8 ms
193 university> insert into instructor values ('98345
  ', 'Kim', 'Elec. Eng.', '80000')
194 [2024-09-17 13:03:20] 1 row affected in 7 ms
195 university> insert into section values ('BIO-101', '1
  ', 'Summer', '2009', 'Painter', '514', 'B')
196 [2024-09-17 13:03:20] 1 row affected in 10 ms
197 university> insert into section values ('BIO-301', '1
  ', 'Summer', '2010', 'Painter', '514', 'A')
198 [2024-09-17 13:03:20] 1 row affected in 10 ms
199 university> insert into section values ('CS-101', '1
  ', 'Fall', '2009', 'Packard', '101', 'H')
200 [2024-09-17 13:03:20] 1 row affected in 8 ms
201 university> insert into section values ('CS-101', '1
  ', 'Spring', '2010', 'Packard', '101', 'F')
202 [2024-09-17 13:03:20] 1 row affected in 8 ms
203 university> insert into section values ('CS-190', '1
  ', 'Spring', '2009', 'Taylor', '3128', 'E')
204 [2024-09-17 13:03:20] 1 row affected in 8 ms
205 university> insert into section values ('CS-190', '2
  ', 'Spring', '2009', 'Taylor', '3128', 'A')
206 [2024-09-17 13:03:20] 1 row affected in 7 ms
207 university> insert into section values ('CS-315', '1
  ', 'Spring', '2010', 'Watson', '120', 'D')
208 [2024-09-17 13:03:20] 1 row affected in 7 ms
209 university> insert into section values ('CS-319', '1
  ', 'Spring', '2010', 'Watson', '100', 'B')
210 [2024-09-17 13:03:20] 1 row affected in 9 ms
211 university> insert into section values ('CS-319', '2
  ', 'Spring', '2010', 'Taylor', '3128', 'C')
```

```
212 [2024-09-17 13:03:20] 1 row affected in 7 ms
213 university> insert into section values ('CS-347', '1
    ', 'Fall', '2009', 'Taylor', '3128', 'A')
214 [2024-09-17 13:03:20] 1 row affected in 9 ms
215 university> insert into section values ('EE-181', '1
    ', 'Spring', '2009', 'Taylor', '3128', 'C')
216 [2024-09-17 13:03:20] 1 row affected in 8 ms
217 university> insert into section values ('FIN-201', '1
    ', 'Spring', '2010', 'Packard', '101', 'B')
218 [2024-09-17 13:03:20] 1 row affected in 7 ms
219 university> insert into section values ('HIS-351', '1
    ', 'Spring', '2010', 'Painter', '514', 'C')
220 [2024-09-17 13:03:20] 1 row affected in 7 ms
221 university> insert into section values ('MU-199', '1
    ', 'Spring', '2010', 'Packard', '101', 'D')
222 [2024-09-17 13:03:20] 1 row affected in 9 ms
223 university> insert into teaches values ('10101', 'CS
    -101', '1', 'Fall', '2009')
224 [2024-09-17 13:03:20] 1 row affected in 7 ms
225 university> insert into teaches values ('10101', 'CS
    -315', '1', 'Spring', '2010')
226 [2024-09-17 13:03:20] 1 row affected in 9 ms
227 university> insert into teaches values ('10101', 'CS
    -347', '1', 'Fall', '2009')
228 [2024-09-17 13:03:20] 1 row affected in 8 ms
229 university> insert into teaches values ('12121', 'FIN-201', '1', 'Spring', '2010')
230 [2024-09-17 13:03:20] 1 row affected in 8 ms
231 university> insert into teaches values ('15151', 'MU
    -199', '1', 'Spring', '2010')
232 [2024-09-17 13:03:20] 1 row affected in 8 ms
233 university> insert into teaches values ('22222', 'PHY-101', '1', 'Fall', '2009')
234 [2024-09-17 13:03:20] 1 row affected in 9 ms
235 university> insert into teaches values ('32343', 'HIS-351', '1', 'Spring', '2010')
236 [2024-09-17 13:03:20] 1 row affected in 7 ms
237 university> insert into teaches values ('45565', 'CS
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239 -101', '1', 'Spring', '2010')
240 [2024-09-17 13:03:20] 1 row affected in 8 ms
241 university> insert into teaches values ('45565', 'CS
-319', '1', 'Spring', '2010')
242 [2024-09-17 13:03:20] 1 row affected in 8 ms
243 university> insert into teaches values ('76766', 'BI0-101', '1', 'Summer', '2009')
244 [2024-09-17 13:03:20] 1 row affected in 8 ms
245 university> insert into teaches values ('76766', 'BI0-301', '1', 'Summer', '2010')
246 [2024-09-17 13:03:20] 1 row affected in 7 ms
247 university> insert into teaches values ('83821', 'CS
-190', '1', 'Spring', '2009')
248 [2024-09-17 13:03:21] 1 row affected in 7 ms
249 university> insert into teaches values ('83821', 'CS
-190', '2', 'Spring', '2009')
250 [2024-09-17 13:03:21] 1 row affected in 7 ms
251 university> insert into teaches values ('83821', 'CS
-319', '2', 'Spring', '2010')
252 [2024-09-17 13:03:21] 1 row affected in 8 ms
253 university> insert into teaches values ('98345', 'EE
-181', '1', 'Spring', '2009')
254 [2024-09-17 13:03:21] 1 row affected in 8 ms
255 university> insert into student values ('00128', 'Zhang', 'Comp. Sci.', '102')
256 [2024-09-17 13:03:21] 1 row affected in 10 ms
257 university> insert into student values ('12345', 'Shankar', 'Comp. Sci.', '32')
258 [2024-09-17 13:03:21] 1 row affected in 8 ms
259 university> insert into student values ('19991', 'Brandt', 'History', '80')
260 [2024-09-17 13:03:21] 1 row affected in 9 ms
261 university> insert into student values ('23121', 'Chavez', 'Finance', '110')
262 [2024-09-17 13:03:21] 1 row affected in 8 ms
263 university> insert into student values ('44553', 'Peltier', 'Physics', '56')
264 [2024-09-17 13:03:21] 1 row affected in 8 ms
265 university> insert into student values ('45678', 'Levy', 'Physics', '46')
266 [2024-09-17 13:03:21] 1 row affected in 8 ms
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267 university> insert into student values ('54321', 'Williams', 'Comp. Sci.', '54')
268 [2024-09-17 13:03:21] 1 row affected in 7 ms
269 university> insert into student values ('55739', 'Sanchez', 'Music', '38')
270 [2024-09-17 13:03:21] 1 row affected in 8 ms
271 university> insert into student values ('70557', 'Snow', 'Physics', '0')
272 [2024-09-17 13:03:21] 1 row affected in 8 ms
273 university> insert into student values ('76543', 'Brown', 'Comp. Sci.', '58')
274 [2024-09-17 13:03:21] 1 row affected in 8 ms
275 university> insert into student values ('76653', 'Aoi', 'Elec. Eng.', '60')
276 [2024-09-17 13:03:21] 1 row affected in 7 ms
277 university> insert into student values ('98765', 'Bourikas', 'Elec. Eng.', '98')
278 [2024-09-17 13:03:21] 1 row affected in 8 ms
279 university> insert into student values ('98988', 'Tanaka', 'Biology', '120')
280 [2024-09-17 13:03:21] 1 row affected in 7 ms
281 university> insert into takes values ('00128', 'CS-101', '1', 'Fall', '2009', 'A')
282 [2024-09-17 13:03:21] 1 row affected in 10 ms
283 university> insert into takes values ('00128', 'CS-347', '1', 'Fall', '2009', 'A-')
284 [2024-09-17 13:03:21] 1 row affected in 11 ms
285 university> insert into takes values ('12345', 'CS-101', '1', 'Fall', '2009', 'C')
286 [2024-09-17 13:03:21] 1 row affected in 8 ms
287 university> insert into takes values ('12345', 'CS-190', '2', 'Spring', '2009', 'A')
288 [2024-09-17 13:03:21] 1 row affected in 8 ms
289 university> insert into takes values ('12345', 'CS-315', '1', 'Spring', '2010', 'A')
290 [2024-09-17 13:03:21] 1 row affected in 7 ms
291 university> insert into takes values ('12345', 'CS-347', '1', 'Fall', '2009', 'A')
292 [2024-09-17 13:03:21] 1 row affected in 9 ms
293 university> insert into takes values ('19991', 'HIS-351', '1', 'Spring', '2010', 'B')
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294 [2024-09-17 13:03:21] 1 row affected in 9 ms
295 university> insert into takes values ('23121', 'FIN-201', '1', 'Spring', '2010', 'C+')
296 [2024-09-17 13:03:21] 1 row affected in 9 ms
297 university> insert into takes values ('44553', 'PHY-101', '1', 'Fall', '2009', 'B-')
298 [2024-09-17 13:03:21] 1 row affected in 7 ms
299 university> insert into takes values ('45678', 'CS-101', '1', 'Fall', '2009', 'F')
300 [2024-09-17 13:03:21] 1 row affected in 7 ms
301 university> insert into takes values ('45678', 'CS-101', '1', 'Spring', '2010', 'B+')
302 [2024-09-17 13:03:21] 1 row affected in 7 ms
303 university> insert into takes values ('45678', 'CS-319', '1', 'Spring', '2010', 'B')
304 [2024-09-17 13:03:21] 1 row affected in 8 ms
305 university> insert into takes values ('54321', 'CS-101', '1', 'Fall', '2009', 'A-')
306 [2024-09-17 13:03:21] 1 row affected in 8 ms
307 university> insert into takes values ('54321', 'CS-190', '2', 'Spring', '2009', 'B+')
308 [2024-09-17 13:03:21] 1 row affected in 7 ms
309 university> insert into takes values ('55739', 'MU-199', '1', 'Spring', '2010', 'A-')
310 [2024-09-17 13:03:21] 1 row affected in 7 ms
311 university> insert into takes values ('76543', 'CS-101', '1', 'Fall', '2009', 'A')
312 [2024-09-17 13:03:21] 1 row affected in 7 ms
313 university> insert into takes values ('76543', 'CS-319', '2', 'Spring', '2010', 'A')
314 [2024-09-17 13:03:21] 1 row affected in 8 ms
315 university> insert into takes values ('76653', 'EE-181', '1', 'Spring', '2009', 'C')
316 [2024-09-17 13:03:22] 1 row affected in 7 ms
317 university> insert into takes values ('98765', 'CS-101', '1', 'Fall', '2009', 'C-')
318 [2024-09-17 13:03:22] 1 row affected in 7 ms
319 university> insert into takes values ('98765', 'CS-315', '1', 'Spring', '2010', 'B')
320 [2024-09-17 13:03:22] 1 row affected in 8 ms
321 university> insert into takes values ('98988', 'BIO-
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321 101', '1', 'Summer', '2009', 'A')
322 [2024-09-17 13:03:22] 1 row affected in 8 ms
323 university> insert into takes values ('98988', 'BIO-
    301', '1', 'Summer', '2010', null)
324 [2024-09-17 13:03:22] 1 row affected in 6 ms
325 university> insert into advisor values ('00128', '45565')
326 [2024-09-17 13:03:22] 1 row affected in 9 ms
327 university> insert into advisor values ('12345', '10101')
328 [2024-09-17 13:03:22] 1 row affected in 10 ms
329 university> insert into advisor values ('23121', '76543')
330 [2024-09-17 13:03:22] 1 row affected in 7 ms
331 university> insert into advisor values ('44553', '22222')
332 [2024-09-17 13:03:22] 1 row affected in 8 ms
333 university> insert into advisor values ('45678', '22222')
334 [2024-09-17 13:03:22] 1 row affected in 7 ms
335 university> insert into advisor values ('76543', '45565')
336 [2024-09-17 13:03:22] 1 row affected in 9 ms
337 university> insert into advisor values ('76653', '98345')
338 [2024-09-17 13:03:22] 1 row affected in 8 ms
339 university> insert into advisor values ('98765', '98345')
340 [2024-09-17 13:03:22] 1 row affected in 7 ms
341 university> insert into advisor values ('98988', '76766')
342 [2024-09-17 13:03:22] 1 row affected in 9 ms
343 university> insert into time_slot values ('A', 'M
    ', '8', '0', '8', '50')
344 [2024-09-17 13:03:22] 1 row affected in 11 ms
345 university> insert into time_slot values ('A', 'W
    ', '8', '0', '8', '50')
346 [2024-09-17 13:03:22] 1 row affected in 10 ms
347 university> insert into time_slot values ('A', 'F
    ', '8', '0', '8', '50')
348 [2024-09-17 13:03:22] 1 row affected in 7 ms
```

```
349 university> insert into time_slot values ('B', 'M  
', '9', '0', '9', '50')  
350 [2024-09-17 13:03:22] 1 row affected in 7 ms  
351 university> insert into time_slot values ('B', 'W  
', '9', '0', '9', '50')  
352 [2024-09-17 13:03:22] 1 row affected in 8 ms  
353 university> insert into time_slot values ('B', 'F  
', '9', '0', '9', '50')  
354 [2024-09-17 13:03:22] 1 row affected in 7 ms  
355 university> insert into time_slot values ('C', 'M  
', '11', '0', '11', '50')  
356 [2024-09-17 13:03:22] 1 row affected in 7 ms  
357 university> insert into time_slot values ('C', 'W  
', '11', '0', '11', '50')  
358 [2024-09-17 13:03:22] 1 row affected in 7 ms  
359 university> insert into time_slot values ('C', 'F  
', '11', '0', '11', '50')  
360 [2024-09-17 13:03:22] 1 row affected in 7 ms  
361 university> insert into time_slot values ('D', 'M  
', '13', '0', '13', '50')  
362 [2024-09-17 13:03:22] 1 row affected in 6 ms  
363 university> insert into time_slot values ('D', 'W  
', '13', '0', '13', '50')  
364 [2024-09-17 13:03:22] 1 row affected in 9 ms  
365 university> insert into time_slot values ('D', 'F  
', '13', '0', '13', '50')  
366 [2024-09-17 13:03:22] 1 row affected in 7 ms  
367 university> insert into time_slot values ('E', 'T  
', '10', '30', '11', '45')  
368 [2024-09-17 13:03:22] 1 row affected in 6 ms  
369 university> insert into time_slot values ('E', 'R  
', '10', '30', '11', '45')  
370 [2024-09-17 13:03:22] 1 row affected in 9 ms  
371 university> insert into time_slot values ('F', 'T  
', '14', '30', '15', '45')  
372 [2024-09-17 13:03:22] 1 row affected in 10 ms  
373 university> insert into time_slot values ('F', 'R  
', '14', '30', '15', '45')  
374 [2024-09-17 13:03:22] 1 row affected in 7 ms  
375 university> insert into time_slot values ('G', 'M  
', '16', '0', '16', '50')
```

```
376 [2024-09-17 13:03:22] 1 row affected in 7 ms
377 university> insert into time_slot values ('G', 'W
   ', '16', '0', '16', '50')
378 [2024-09-17 13:03:22] 1 row affected in 6 ms
379 university> insert into time_slot values ('G', 'F
   ', '16', '0', '16', '50')
380 [2024-09-17 13:03:22] 1 row affected in 9 ms
381 university> insert into time_slot values ('H', 'W
   ', '10', '0', '12', '30')
382 [2024-09-17 13:03:23] 1 row affected in 8 ms
383 university> insert into prereq values ('BI0-301', 'BI0-101')
384 [2024-09-17 13:03:23] 1 row affected in 9 ms
385 university> insert into prereq values ('BI0-399', 'BI0-101')
386 [2024-09-17 13:03:23] 1 row affected in 10 ms
387 university> insert into prereq values ('CS-190', 'CS
   -101')
388 [2024-09-17 13:03:23] 1 row affected in 9 ms
389 university> insert into prereq values ('CS-315', 'CS
   -101')
390 [2024-09-17 13:03:23] 1 row affected in 8 ms
391 university> insert into prereq values ('CS-319', 'CS
   -101')
392 [2024-09-17 13:03:23] 1 row affected in 9 ms
393 university> insert into prereq values ('CS-347', 'CS
   -101')
394 [2024-09-17 13:03:23] 1 row affected in 8 ms
395 university> insert into prereq values ('EE-181', 'PHY-101')
396 [2024-09-17 13:03:23] 1 row affected in 8 ms
397 university> create table grade_point (
398           Grade varchar(10),
399           Point float
400       )
401 [2024-09-17 13:05:48] completed in 50 ms
402 university> drop table grade_point
403 [2024-09-17 13:06:11] completed in 22 ms
404 university> create table grade_point (
405           Grade varchar(10) ,
406           Point float,
```

```
407                     primary key (Grade)
408                 )
409 [2024-09-17 13:07:06] completed in 25 ms
410 university> drop table grade_point
411 [2024-09-17 13:07:53] completed in 18 ms
412 university> create table grade_point (
413                     Grade varchar(3) primary key ,
414                     Point decimal(2,1) not null
415                 )
416 [2024-09-17 13:09:39] completed in 21 ms
417 university> insert into grade_point (Grade, Point)
418             values('A+',4.2),('A',4.0),('A-',3.7),('
419 B+',3.5),('B',3.0),('B-',2.7),('C+',2.3),('C',2.0
420 ),('C-',1.5),('D',1.0)
419 [2024-09-17 13:15:29] 10 rows affected in 8 ms
420 university> create table grade_point (
421                     Grade varchar(3) primary key ,
422                     Point decimal(2,1) not null
423                 )
424 [2024-09-17 13:20:42] [42S01][1050] Table '
425 grade_point' already exists
425 university> select takes.ID,sum(takes.grade*
426 grade_point.Point) as GP
427             from takes,grade_point
428             where takes.grade=grade_point.Grade
428 [2024-09-17 13:41:07] [42000][1140] In aggregated
429 query without GROUP BY, expression #1 of SELECT list
430 contains nonaggregated column 'university.takes.ID
431 '; this is incompatible with sql_mode=
432 only_full_group_by
429 university> select takes.ID,sum(takes.grade*
433 grade_point.Point) as GP
434             from takes,grade_point
435             where takes.grade=grade_point.Grade
436             group by takes.ID
433 [2024-09-17 13:41:27] [22007][1292] Truncated
437 incorrect DOUBLE value: 'A'
434 [2024-09-17 13:41:27] [22007][1292] Truncated
438 incorrect DOUBLE value: 'C'
435 [2024-09-17 13:41:27] [22007][1292] Truncated
439 incorrect DOUBLE value: 'A'
```

```
436 [2024-09-17 13:41:27] [22007][1292] Truncated  
incorrect DOUBLE value: 'A'  
437 [2024-09-17 13:41:27] [22007][1292] Truncated  
incorrect DOUBLE value: 'A'  
438 [2024-09-17 13:41:27] [22007][1292] Truncated  
incorrect DOUBLE value: 'B'  
439 [2024-09-17 13:41:27] [22007][1292] Truncated  
incorrect DOUBLE value: 'B'  
440 [2024-09-17 13:41:27] [22007][1292] Truncated  
incorrect DOUBLE value: 'A'  
441 [2024-09-17 13:41:27] [22007][1292] Truncated  
incorrect DOUBLE value: 'A'  
442 [2024-09-17 13:41:27] [22007][1292] Truncated  
incorrect DOUBLE value: 'C'  
443 [2024-09-17 13:41:27] [22007][1292] Truncated  
incorrect DOUBLE value: 'B'  
444 [2024-09-17 13:41:27] [22007][1292] Truncated  
incorrect DOUBLE value: 'A'  
445 [2024-09-17 13:41:27] 12 rows retrieved starting  
from 1 in 106 ms (execution: 20 ms, fetching: 86 ms)  
446 university> select takes.ID,sum(grade_point.Point)  
as GP  
447         from takes,grade_point  
448         where takes.grade=grade_point.Grade  
449         group by takes.ID  
450 [2024-09-17 13:42:29] 12 rows retrieved starting  
from 1 in 49 ms (execution: 4 ms, fetching: 45 ms)  
451 university> SELECT SUM(grade_point.Point) AS  
TotalGradePoints  
452         FROM takes  
453             JOIN grade_point ON takes.grade  
= grade_point.Grade  
454 [2024-09-17 14:08:54] 1 row retrieved starting from  
1 in 68 ms (execution: 5 ms, fetching: 63 ms)  
455 university> select student.name,sum(grade_point.  
Point) as GP  
456         from student,takes,grade_point  
457         where takes.grade=grade_point.Grade  
458         group by takes.ID  
459 [2024-09-17 14:09:55] [42000][1055] Expression #1 of  
SELECT list is not in GROUP BY clause and contains
```

```
459 nonaggregated column 'university.student.name' which
      is not functionally dependent on columns in GROUP
      BY clause; this is incompatible with sql_mode=
          only_full_group_by
460 university> select student.name,sum(grade_point.
      Point) as GP
461           from student,takes,grade_point
462           where takes.grade=grade_point.Grade
463           group by student.name
464 [2024-09-17 14:10:29] 13 rows retrieved starting
      from 1 in 62 ms (execution: 10 ms, fetching: 52 ms)
465 university> select student.name,sum(grade_point.
      Point) as GP
466           from student inner join takes on student
      .ID = takes.ID
467           inner join grade_point on takes.grade=
      grade_point.Grade
468           group by student.name
469 [2024-09-17 14:13:05] 12 rows retrieved starting
      from 1 in 41 ms (execution: 5 ms, fetching: 36 ms)
470 university> create table grade_point (
471           Grade varchar(3) primary key ,
472           Point decimal(2,1) not null
473       )
474 [2024-09-17 14:13:49] completed in 23 ms
475 university> insert into grade_point (Grade, Point)
476           values('A+',4.2),('A',4.0),('A-',3.7),(
        'B+',3.5),('B',3.0),('B-',2.7),('C+',2.3),('C',2.0
        ),('C-',1.5),('D',1.0)
477 [2024-09-17 14:13:49] 10 rows affected in 6 ms
478 university> select student.name,sum(grade_point.
      Point) as GP
479           from student inner join takes on student
      .ID = takes.ID
480           inner join grade_point on takes.grade=
      grade_point.Grade
481           group by student.name
482 [2024-09-17 14:13:54] 12 rows retrieved starting
      from 1 in 20 ms (execution: 3 ms, fetching: 17 ms)
483 university> create view test as
484           select * from student inner join
```

```
484 takes on student.ID = takes.ID
485 [2024-09-17 14:15:26] [42S21][1060] Duplicate column
    name 'ID'
486 university> create view test as
487         select * from student inner join
        takes on student.ID = takes.ID
488 [2024-09-17 14:15:50] [42S21][1060] Duplicate column
    name 'ID'
489 university> create view test as
490         select id, name, dept_name, tot_cred
        , id, course_id, sec_id, semester, year
491         from student inner join takes on
        student.ID = takes.ID
492 [2024-09-17 14:17:10] [23000][1052] Column 'id' in
    field list is ambiguous
493 university> select id, name, dept_name, tot_cred, id
        , course_id, sec_id, semester, year
494         from student inner join takes on
        student.ID = takes.ID
495 [2024-09-17 14:17:12] [23000][1052] Column 'id' in
    field list is ambiguous
496 university> create view test as
497         select student.id, name, dept_name,
        tot_cred, course_id, sec_id, semester, year
498         from student inner join takes on
        student.ID = takes.ID
499 [2024-09-17 14:17:27] completed in 13 ms
500 university> select student.name,sum(grade_point.
    Point) as GP
501         from student inner join takes on student
    .ID = takes.ID
502         left outer join grade_point on takes.
    grade=grade_point.Grade
503         group by student.name
504 [2024-09-17 14:21:10] 12 rows retrieved starting
    from 1 in 62 ms (execution: 6 ms, fetching: 56 ms)
505 university> select student.name,sum(grade_point.
    Point) as GP
506         from student left outer join takes on
    student.ID = takes.ID
507         left outer join grade_point on takes.
```

```
507 grade=grade_point.Grade
508         group by student.name
509 [2024-09-17 14:21:57] 13 rows retrieved starting
    from 1 in 34 ms (execution: 4 ms, fetching: 30 ms)
510 university> select student.name,sum(grade_point.
    Point) as GP
511         from student left outer join takes on
    student.ID = takes.ID
512         left outer join grade_point on takes.
    grade=grade_point.Grade
513         group by student.name
514         order by GP
515 [2024-09-17 14:22:39] 13 rows retrieved starting
    from 1 in 33 ms (execution: 4 ms, fetching: 29 ms)
516 university> select student.name,sum(grade_point.
    Point) as GP
517         from student left outer join takes on
    student.ID = takes.ID
518         left outer join grade_point on takes.
    grade=grade_point.Grade
519         group by student.name
520         order by GP desc
521 [2024-09-17 14:22:42] 13 rows retrieved starting
    from 1 in 32 ms (execution: 4 ms, fetching: 28 ms)
522 university> select student.name,sum(grade_point.
    Point) as GP
523         from student left outer join takes on
    student.ID = takes.ID
524         left outer join grade_point on takes.
    grade=grade_point.Grade
525         group by student.name
526         order by GP desc
527 [2024-09-17 14:24:03] 13 rows retrieved starting
    from 1 in 30 ms (execution: 6 ms, fetching: 24 ms)
528 university> create function num_of_enrollment(
    course_id varchar(8)) returns int
529     begin
530         declare num int;
531         select count(takes.course_id)
532             from takes;
533     end
```

```
534 [2024-09-17 14:29:47] [0A000][1415] Not allowed to
      return a result set from a function
535 university> create function num_of_enrollment(
      course_id varchar(8)) returns int
      begin
      declare num int;
      select count(takes.course_id)
      from takes
      where takes.course_id =course_id
      ;
541         end
542 [2024-09-17 14:30:40] [0A000][1415] Not allowed to
      return a result set from a function
543 university> create function num_of_enrollment(
      course_id varchar(8)) returns int
      begin
      declare num int;
      select count(takes.course_id) into
      num
      from takes
      where takes.course_id =course_id
      ;
549         end
550 [2024-09-17 14:30:55] [42000][1320] No RETURN found
      in FUNCTION university.num_of_enrollment
551 university> create function num_of_enrollment(
      course_id varchar(8)) returns int
      begin
      declare num int;
      select count(takes.course_id) into
      num
      from takes
      where takes.course_id =course_id
      ;
557         return num;
558     end
559 [2024-09-17 14:31:11] [HY000][1418] This function
      has none of DETERMINISTIC, NO SQL, or READS SQL DATA
      in its declaration and binary logging is enabled (
      you *might* want to use the less safe
      log_bin_trust_function_creators variable)
```

```
560 university> create function num_of_enrollment(
    course_id varchar(8)) returns int
561         begin
562             declare num int;
563
564             select count(takes.course_id) into
565                 num
566                 from takes
567                 where takes.course_id =course_id
568 ;
569         end
570 [2024-09-17 14:32:00] [HY000][1418] This function
has none of DETERMINISTIC, NO SQL, or READS SQL DATA
in its declaration and binary logging is enabled (
you *might* want to use the less safe
log_bin_trust_function_creators variable)
571 university> create function num_of_enrollment(
    course_id varchar(8)) returns int
572         begin
573             declare num int;
574
575             select count(*) into num
576                 from takes
577                 where takes.course_id =course_id
578 ;
579         return num;
580     end
581 [2024-09-17 14:32:31] [HY000][1418] This function
has none of DETERMINISTIC, NO SQL, or READS SQL DATA
in its declaration and binary logging is enabled (
you *might* want to use the less safe
log_bin_trust_function_creators variable)
582 university> create function num_of_enrollment(
    course_id varchar(8)) returns int
583
584         begin
585             declare num int;
586
```

```
587          select count(takes.course_id) into
      num
588          from takes
589          where takes.course_id =course_id
      ;
590
591          return num;
592      end
593 [2024-09-17 14:35:08] [HY000][1418] This function
  has none of DETERMINISTIC, NO SQL, or READS SQL DATA
  in its declaration and binary logging is enabled (
  you *might* want to use the less safe
  log_bin_trust_function_creators variable)
594 university> CREATE FUNCTION num_of_enrollment(
  course_id VARCHAR(8))
595          RETURNS INT
596          BEGIN
597          DECLARE num INT;
598
599          SELECT COUNT(takes.course_id) INTO
  num
600          FROM takes
601          WHERE takes.course_id = course_id;
602
603          RETURN num;
604      END
605 [2024-09-17 14:35:47] [HY000][1418] This function
  has none of DETERMINISTIC, NO SQL, or READS SQL DATA
  in its declaration and binary logging is enabled (
  you *might* want to use the less safe
  log_bin_trust_function_creators variable)
606 university> create function num_of_enrollment(
  course_id varchar(8)) returns int
607          deterministic
608          begin
609          declare num int;
610
611          select count(takes.course_id) into
  num
612          from takes
613          where takes.course_id =course_id
```

```
613 ;
614
615         return num;
616     end
617 [2024-09-17 14:37:31] completed in 9 ms
618 university> create function num_of_enrollment(
619     course_id varchar(8)) returns int
620
621         begin
622             declare num int default 0;
623
624             select count(takes.course_id) into
625                 num
626                 from takes
627                 where takes.course_id =course_id
628 ;
629
630         return num;
631     end
629 [2024-09-17 14:38:20] [HY000][1418] This function
   has none of DETERMINISTIC, NO SQL, or READS SQL DATA
   in its declaration and binary logging is enabled (
   you *might* want to use the less safe
   log_bin_trust_function_creators variable)
630 university> create function num_of_enrollment(
631     course_id varchar(8)) returns int
632
633         begin
634             declare num int default 0;
635
636             select count(takes.ID) into num
637                 from takes
638                 where takes.course_id =course_id
639 ;
640
641         return num;
640     end
641 [2024-09-17 14:39:05] [HY000][1418] This function
   has none of DETERMINISTIC, NO SQL, or READS SQL DATA
   in its declaration and binary logging is enabled (
   you *might* want to use the less safe
```

```
641 log_bin_trust_function_creators variable)
642 university> create function num_of_enrollment(
    course_id varchar(8)) returns int
643
644     begin
645         declare num int default 0;
646
647         select count(takes.ID) into num
648             from takes
649             where takes.course_id =course_id
650 ;
651         return num;
652     end
653 [2024-09-17 14:39:09] [HY000][1418] This function
    has none of DETERMINISTIC, NO SQL, or READS SQL DATA
    in its declaration and binary logging is enabled (
        you *might* want to use the less safe
        log_bin_trust_function_creators variable)
654 university> create function num_of_enrollment(
    course_id varchar(8)) returns int
655     deterministic
656     begin
657         declare num int;
658
659         select count(takes.course_id) into
660             num
661             from takes
662             where takes.course_id =course_id
663 ;
664         return num;
665     end
666 [2024-09-17 14:39:31] completed in 15 ms
667 university> select takes.course_id
668     from takes
669     where num_of_enrollment(course_id)>5
670 [2024-09-17 14:45:53] 7 rows retrieved starting from
    1 in 56 ms (execution: 15 ms, fetching: 41 ms)
671 university> select distinct takes.course_id
672     from takes
```

```
672          where num_of_enrollment(course_id)>5
673          order by course_id asc
674 [2024-09-17 14:46:28] 1 row retrieved starting from
   1 in 53 ms (execution: 8 ms, fetching: 45 ms)
675 university> select distinct takes.course_id
676          from takes
677          where num_of_enrollment(course_id)>5
678          order by course_id
679 [2024-09-17 14:46:37] 1 row retrieved starting from
   1 in 60 ms (execution: 4 ms, fetching: 56 ms)
680 university> select distinct takes.course_id
681          from takes
682          where num_of_enrollment(takes.course_id
   )>5
683          order by course_id
684 [2024-09-17 14:46:59] 1 row retrieved starting from
   1 in 65 ms (execution: 4 ms, fetching: 61 ms)
685 university> CREATE TRIGGER check_grades
686          before insert on takes
687          for each row
688          begin
689              IF NOT EXISTS(
690                  select 1
691                  from grade_point
692                  where grade_point.Grade =
693                      new.grade
694              )then
695                  SET new.grade = NULL;
696              end if;
697          end
698 [2024-09-17 14:55:18] completed in 16 ms
699 university> CREATE TRIGGER check_grades
700          before insert on takes
701          for each row
702          begin
703              IF NOT EXISTS(
704                  select 1
705                  from grade_point
706                  where grade_point.Grade =
707                      new.grade
708              )then
```

```
707                      SET new.grade = NULL;
708                      end if;
709                  end
710 [2024-09-17 14:57:45] [HY000][1359] Trigger already
exists
711 university> CREATE TRIGGER check_grades
712         before insert on takes
713             for each row
714             begin
715                 IF NOT EXISTS(
716                     select 1
717                     from grade_point
718                     where grade_point.Grade =
new.grade
719                 )then
720                     SET new.grade = NULL;
721                     end if;
722                 end
723 [2024-09-17 15:07:32] [HY000][1359] Trigger already
exists
724 university> CREATE TRIGGER check_grades
725         before insert on takes
726             for each row
727             begin
728                 IF NOT EXISTS(
729                     select 1
730                     from grade_point
731                     where grade_point.Grade =
new.grade
732                 )then
733                     SET new.grade = NULL;
734                     end if;
735                 end
736 [2024-09-17 15:07:54] [HY000][1359] Trigger already
exists
737 university> create view faculty as
738         select ID,name,dept_name
739         from instructor
740 [2024-09-17 15:12:48] completed in 12 ms
741 university> create user 'uomcse' identified by '
uomcse123'
```

```
742 [2024-09-17 15:15:39] completed in 25 ms
743 university> GRANT SELECT ON faculty TO 'uomcse'
744 [2024-09-17 15:20:36] [42000][1410] You are not
    allowed to create a user with GRANT
745 university> GRANT SELECT ON faculty TO 'uomcse'@'
    localhost'
746 [2024-09-17 15:23:38] [42000][1410] You are not
    allowed to create a user with GRANT
747 university> create user 'uomcse' identified by '
    uomcse'@'localhost'
748 [2024-09-17 15:23:52] [42000][1064] You have an
    error in your SQL syntax; check the manual that
    corresponds to your MySQL server version for the
    right syntax to use near '@'localhost'' at line 1
749 university> create user 'uomcse' identified by '
    uomcse'@'localhost'
750 [2024-09-17 15:24:00] [42000][1064] You have an
    error in your SQL syntax; check the manual that
    corresponds to your MySQL server version for the
    right syntax to use near '@'localhost'' at line 1
751 university> GRANT SELECT ON faculty TO 'uomcse'@'
    localhost'
752 [2024-09-17 15:26:20] [42000][1410] You are not
    allowed to create a user with GRANT
753 university> SHOW GRANTS FOR CURRENT_USER()
754 [2024-09-17 15:27:16] 1 row retrieved starting from
    1 in 57 ms (execution: 4 ms, fetching: 53 ms)
755 university> create user 'uomcse'@'localhost'
    identified by 'uomcse123'
756 [2024-09-17 15:31:14] completed in 10 ms
757 university> GRANT SELECT ON faculty TO 'uomcse'@'
    localhost'
758 [2024-09-17 15:31:24] completed in 7 ms
759 university> GRANT all privileges ON takes TO 'uomcse'
    '@'localhost'
760 [2024-09-17 15:35:55] completed in 5 ms
761
```