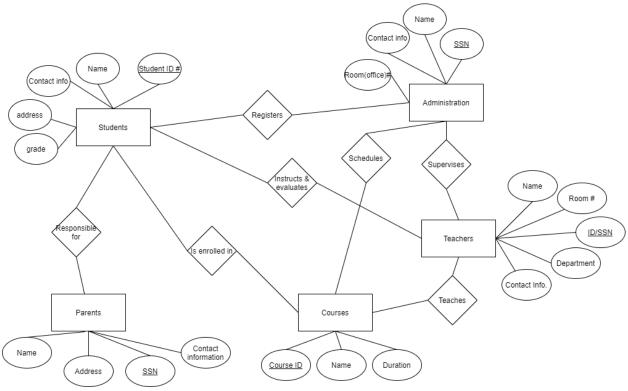
Ethan Engel

COMP3429

Assignment 3



Relational Model

Students(sid, grade, name, contact_information, address)

Administration(aid, name, office, contact_information)

Teachers(tid, name, department, room, contact_information)

Courses(course id, name, credits)

Parents(pid, name, address, contact_information)

Registers(aid, sid)

Instructs(sid, tid)

Enrolled_in(sid, course_code)

Responsible_For(pid, sid)

Schedules(aid, course_code)

Supervises(aid, tid)

```
mysql> create table Students(
  -> sid int,
  -> grade int,
  -> name varchar(25),
  -> contact_information varchar(50),
  -> address varchar(50),
  -> Primary Key(sid));
mysql> create table Administration(
  -> aid int,
  -> name varchar(25),
  -> office int,
  -> contact_information varchar(50),
  -> Primary Key(aid));
mysql> create table Teachers(
  -> tid int,
  -> name varchar(25),
  -> department varchar(25),
  -> room int,
  -> contact_information varchar(50),
  -> Primary Key (tid));
mysql> create table Courses(
  -> course_id varchar(10),
  -> name varchar(25),
  -> credits float,
  -> Primary Key (course_id));
mysql> create table Parents(
  -> pid int,
  -> name varchar(25),
  -> address varchar(50),
```

```
-> contact_information varchar(50),
  -> Primary Key(pid));
mysql> create table Registers(
  -> aid int,
  -> sid int,
  -> Primary Key(aid,sid));
mysql> create table Instructs(
  -> tid int,
  -> sid int,
  -> Primary Key(tid,sid));
mysql> create table Enrolled_In(
  -> sid int,
  -> course_id varchar(10),
  -> Primary Key(sid,course_id));
mysql> create table Responsible_For(
  -> pid int,
  -> sid int,
  -> Primary Key(pid,sid));
mysql> create table Schedules(
  -> aid int,
  -> course_id varchar(10),
  -> Primary Key(aid,course_id));
mysql> create table Supervises(
  -> aid int,
  -> tid int,
  -> Primary Key(aid,tid));
```

```
mysgl> describe administration;
+----+
      | Type | Null | Key | Default | Extra |
+----+
aid
     int NO PRINULL |
| office
    | int
           | YES | | NULL | |
+-----+
4 rows in set (0.62 sec)
mysql> describe courses;
+----+
| Field | Type | Null | Key | Default | Extra |
+----+
course_id | varchar(10) | NO | PRI | NULL |
| name | varchar(25) | YES | NULL | |
credits | float | YES | NULL | |
+-----+
3 rows in set (0.06 sec)
mysql> describe enrolled in;
+----+
| Field | Type | Null | Key | Default | Extra |
+----+
sid int NO PRI NULL |
course_id | varchar(10) | NO | PRI | NULL |
+----+
2 rows in set (0.01 sec)
```

```
mysql> describe instructs;
+----+
| Field | Type | Null | Key | Default | Extra |
+----+
tid | int | NO | PRI | NULL | |
sid | int | NO | PRI | NULL | |
+----+
2 rows in set (0.04 sec)
mysql> describe parents;
+-----+
Field
    | Type | Null | Key | Default | Extra |
+-----+
   | pid
name | varchar(25) | YES | NULL |
address
     | varchar(50) | YES | | NULL | |
+----+
4 rows in set (0.03 sec)
mysql> describe registers;
+----+
| Field | Type | Null | Key | Default | Extra |
+----+
| aid | int | NO | PRI | NULL | |
sid int NO PRI NULL
+----+
```

2 rows in set (0.04 sec)

```
mysql> describe responsible_for;
+----+
| Field | Type | Null | Key | Default | Extra |
+----+
| pid | int | NO | PRI | NULL | |
sid | int | NO | PRI | NULL | |
+----+
2 rows in set (0.05 sec)
mysql> describe students;
+----+
Field
     | Type | Null | Key | Default | Extra |
+-----+
sid
   grade int YES | NULL |
name
     | varchar(25) | YES | | NULL | |
| contact_information | varchar(50) | YES | NULL |
| address
         | varchar(50) | YES | | NULL | |
+-----+
5 rows in set (0.01 sec)
mysql> describe supervises;
+----+
| Field | Type | Null | Key | Default | Extra |
+----+
aid int NO PRI NULL |
tid | int | NO | PRI | NULL |
+----+
```

2 rows in set (0.02 sec)

```
mysql> describe teachers;
+----+
Field
          | Type | Null | Key | Default | Extra |
+-----+
name | varchar(25) | YES | NULL |
department
             | varchar(25) | YES | | NULL | |
room
           contact_information | varchar(50) | YES | NULL |
5 rows in set (0.03 sec)
mysql> Insert into teachers values(1234567, "Nugent, Theodore", "Science", 218,
"ted.nugent@medford.edu 634-2718");
Query OK, 1 row affected (1.41 sec)
mysql> insert into supervises values(1523, 6666666);
Query OK, 1 row affected (0.21 sec)
mysql> insert into students values(12999, 10, "Streets, Kristian", "Kristian.Streets@medford.student.edu
541-777-8274", "1080 Siskiyou Lane")
 ->;
Query OK, 1 row affected (0.23 sec)
```

```
mysql> select * from teachers;
+-----+
tid | name | department | room | contact_information
+-----+
| 1234567 | Nugent, Theodore | Science | 218 | ted.nugent@medford.edu 634-2718 |
| 1357908 | Derelict, Stephen | Mathematics | 304 | stephen.derelict@medford.edu 634-1119 |
| 6666666 | Pegleg, Kyle | Language Arts | 111 | kyle.pegleg@medford.edu 634-4448
+-----+
3 rows in set (0.04 sec)
mysql> select * from supervises;
+----+
aid tid
+----+
| 1523 | 6666666 |
+----+
1 row in set (0.00 sec)
mysql> select * from students;
+-----+
| sid | grade | name | contact information
                                       address
+-----+
| 12999 | 10 | Streets, Kristian | Kristian.Streets@medford.student.edu 541-777-8274 | 1080 Siskiyou
Lane |
+-----+
1 row in set (0.00 sec)
```