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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));

mysql> describe administration;

+---------------------+-------------+------+-----+---------+-------+

| Field | Type | Null | Key | Default | Extra |

+---------------------+-------------+------+-----+---------+-------+

| aid | int | NO | PRI | NULL | |

| name | varchar(25) | YES | | NULL | |

| office | int | YES | | NULL | |

| contact\_information | varchar(50) | 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 | int | NO | PRI | NULL | |

| name | varchar(25) | YES | | NULL | |

| address | varchar(50) | YES | | NULL | |

| contact\_information | 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 | int | NO | PRI | NULL | |

| 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 |

+---------------------+-------------+------+-----+---------+-------+

| tid | int | NO | PRI | NULL | |

| name | varchar(25) | YES | | NULL | |

| department | varchar(25) | YES | | NULL | |

| room | int | YES | | NULL | |

| 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)