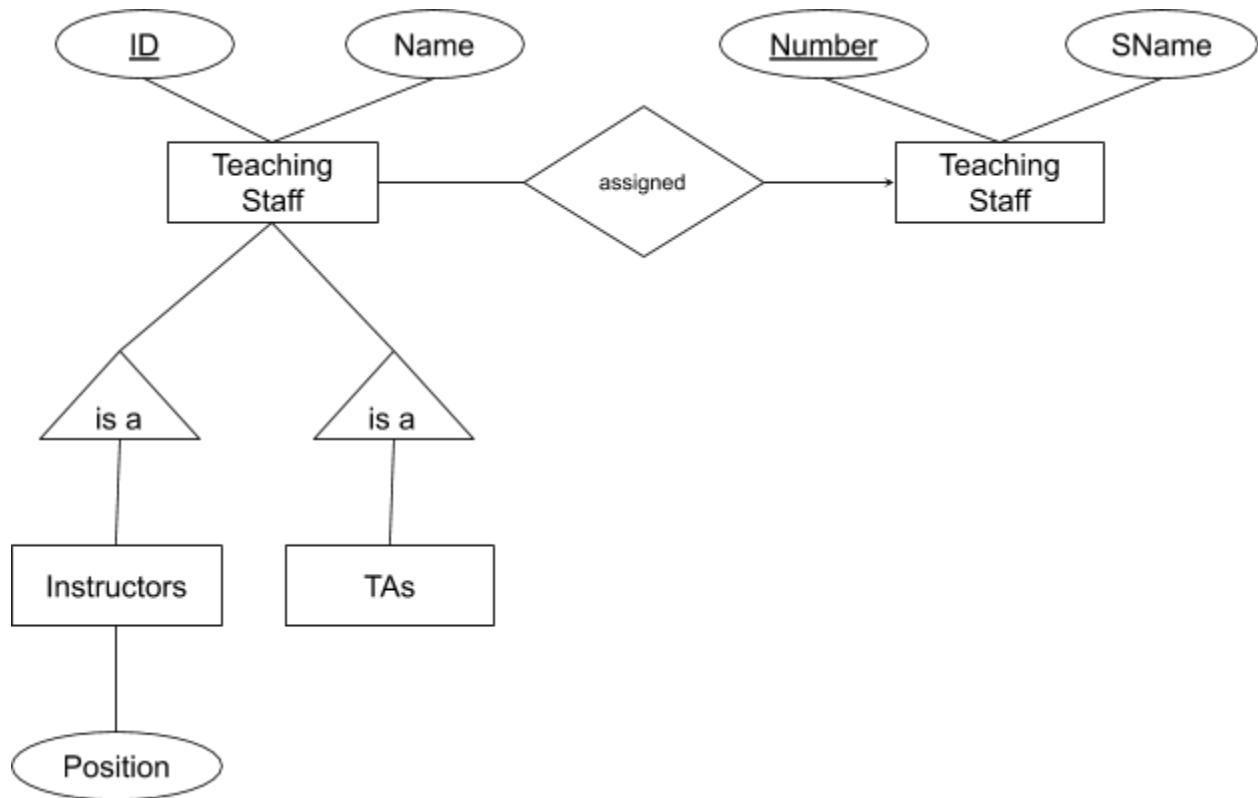


DBMS Homework 1

I. Independent work.

Problem 1

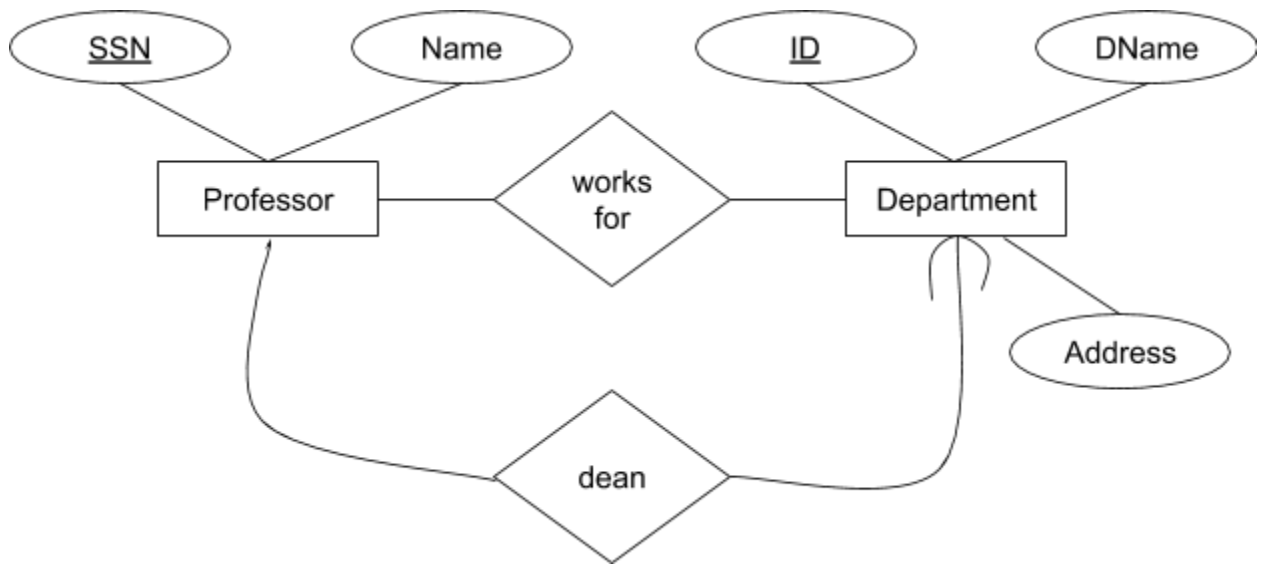


The mistakes are:

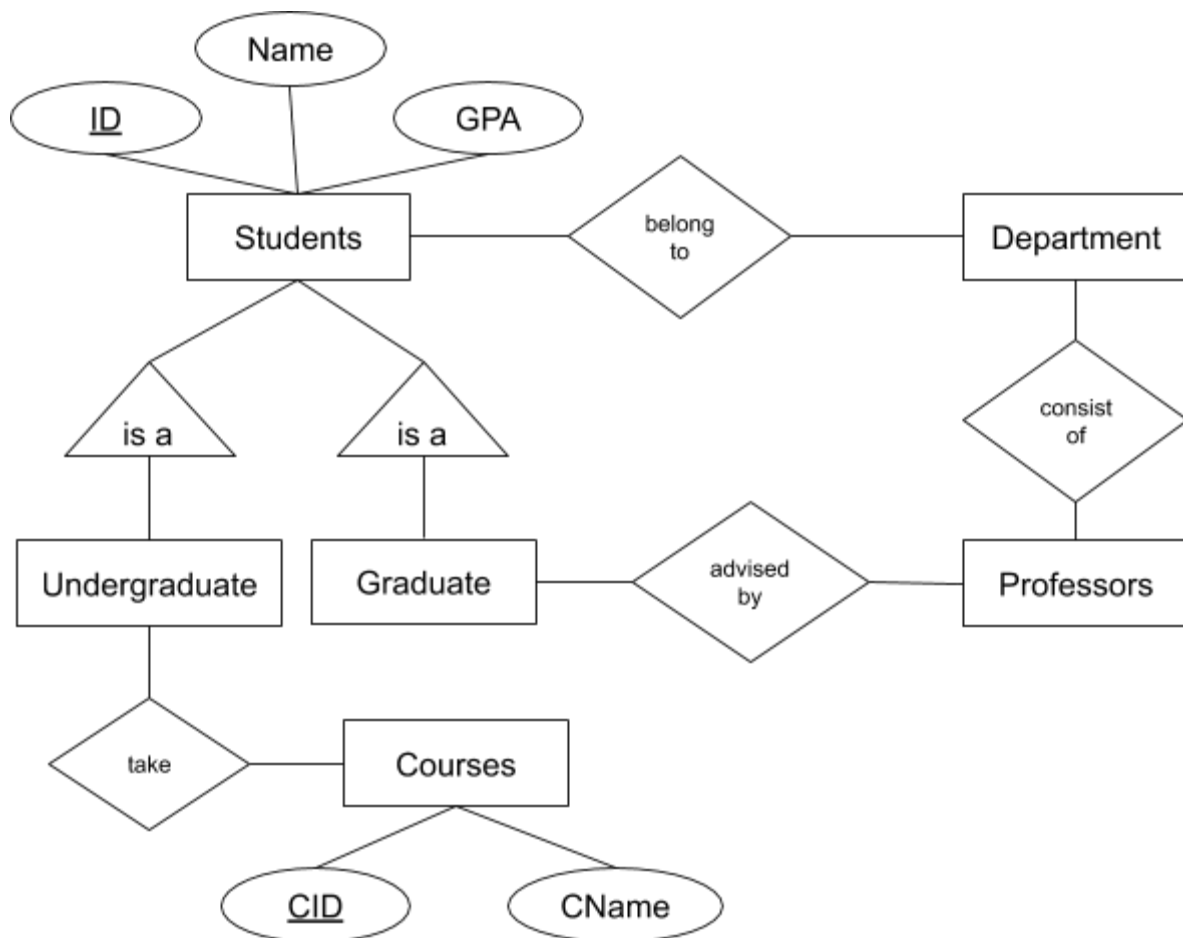
- a. ID attribute associated with the Teaching Staff is unique and therefore it should be underlined.
- b. The TAs entity set will not have its own ID attribute but will derive it from the Teaching Staff entity set.
- c. In order to depict the position held by an Instructor within the department, there will be a "Position" attribute with the Instructor Entity Set.
- d. The Courses entity set will not be double lined as it is not a weak entity set.
- e. Since, each member of the teaching staff is assigned to exactly one course, there will be an arrow pointing from the Teaching Staff entity set to the Courses entity set.

Problem 2

(2.1)



(2.2)



Problem 3

John Mullis: Students, Undergraduate

Zhe Zhang: Students, Graduate

II. Collaborative work.

Problem 4

(4.1)

```
MariaDB [rshah27]> select * from BOOKS where price > 9.00;
+-----+-----+-----+-----+
| BOOK_TITLE | ID | PRICE | AVAILABLE |
+-----+-----+-----+-----+
| All about DBMS | 17 | 13.49 | 5 |
| Jack the Ripper | 13 | 9.99 | 1 |
| Napoleon and Blucher | 5 | 9.99 | 0 |
+-----+-----+-----+-----+
3 rows in set (0.00 sec)

MariaDB [rshah27]> select * from BOOKS where price <= 9.00;
+-----+-----+-----+-----+
| BOOK_TITLE | ID | PRICE | AVAILABLE |
+-----+-----+-----+-----+
| Queen Lucia | 72 | 5.99 | 0 |
| A Calendar of Sonnets | 101 | 3.49 | 15 |
+-----+-----+-----+-----+
2 rows in set (0.00 sec)
```

The first query obtains the information on all books where the price is greater than 9.00.

The second query obtains the information on all books where the price is less than or equal to 9.00.

(4.2) select * from BOOKS where BOOK_TITLE='Queen Lucia';

```
MariaDB [rshah27]> select * from BOOKS where BOOK_TITLE='Queen Lucia';
+-----+-----+-----+-----+
| BOOK_TITLE | ID | PRICE | AVAILABLE |
+-----+-----+-----+-----+
| Queen Lucia | 72 | 5.99 | 0 |
+-----+-----+-----+-----+
1 row in set (0.00 sec)
```