

1. Consider the VIEW (DEPT\_SUMMARY)

a. SELECT \* FROM DEPT\_SUMMARY;

D	C	Total_s	Average_s
1	1	55000	55000
4	3	93000	31000
5	4	133000	33250

b. SELECT D, C FROM DEPT\_SUMMARY WHERE TOTAL\_S > 100000;

D	C
5	4

c. SELECT D, AVERAGE\_S FROM DEPT\_SUMMARY WHERE C > (SELECT C FROM DEPT\_SUMMARY WHERE D = 4);

D	AVERAGE_S
5	33250

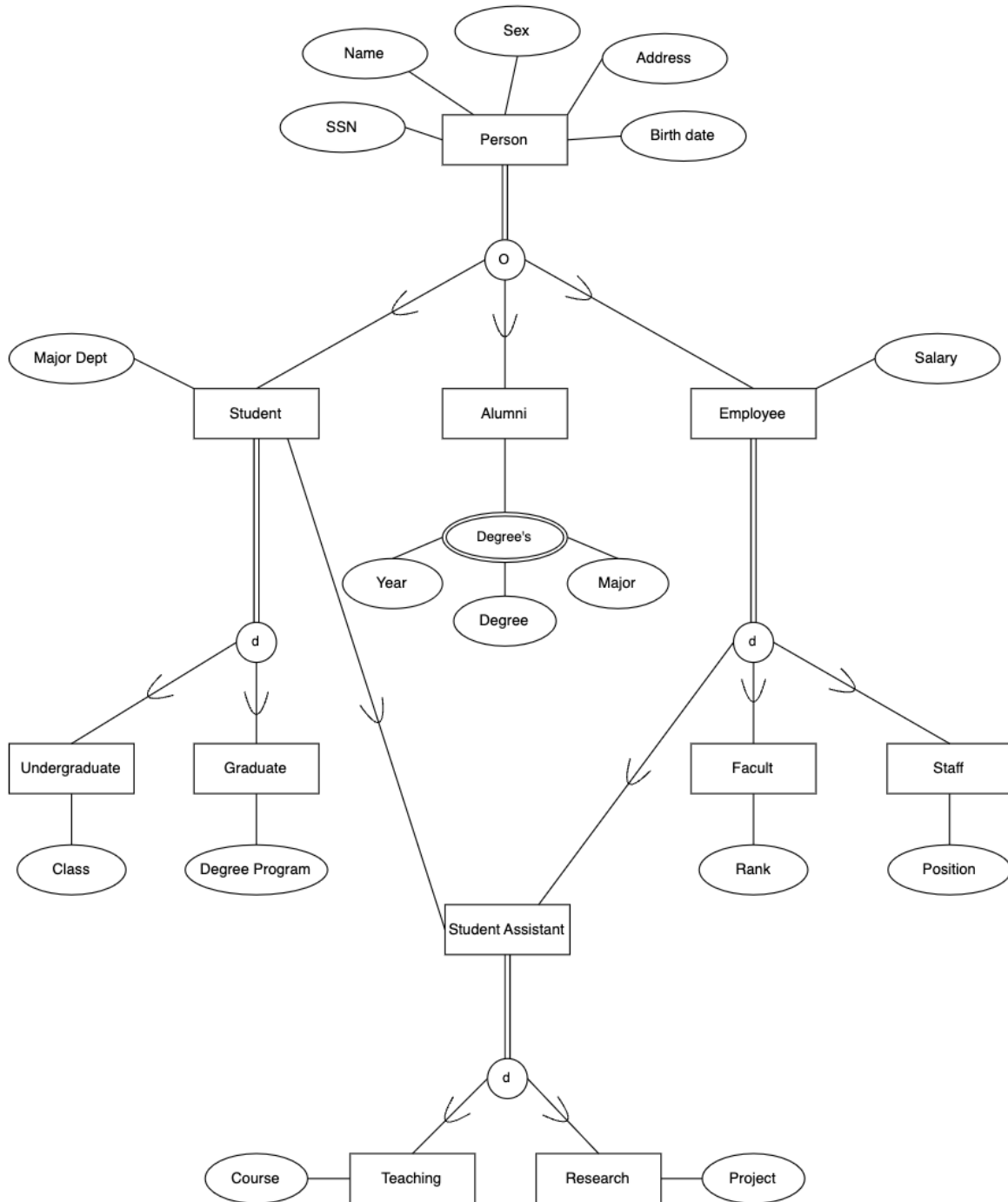
d. UPDATE DEPT\_SUMMARY SET D = 3 WHERE D = 4;

i. This query cannot be used as the view DEPT\_SUMMARY has aggregated data and uses group by clause.

e. DELETE FROM DEPT\_SUMMARY C > 4

- i. Data cannot be deleted as it is a view created which contains aggregated data and group by clause, like the update command.

## 2. DRAW AN EER DIAGRAM



**3. CONSIDER THE UML DIAGRAM**

- a. Minimum = 1, Maximum = 5
- b. .
  - i. Professor – Minimum = 0, Maximum = 5
  - ii. Assistant – Minimum = 3, Maximum = 6
- c. .
  - i. Professor – (name, office, rank, course #, rating)
  - ii. Assistant – (name, office, years)
  - iii. Course – (course #, dept)
  - iv. Ateach – (name, course #)
- d. .
  - i. Professor – (name)
  - ii. Assistant – (name)
  - iii. Course – (course #)
  - iv. Ateach – (name, course #)
- e. Yes, the Professor.couse# and the Professor.rating shall permit any null values if needed.

**4. REFER TO PUBS DATABASE SYSTEM – ANSWERED ON PAPER**

**5. SPECIFY THE RA EXPRESSIONS – ANSWERED ON PAPER**

**6. ILLUSTRATE OBJECT FEATURE OF SQL**

- a. CREATE TYPE AUTHOR\_TYPE (author\_id INT, first\_name VARCHAR(25), last\_name VARCHAR(25))
- b. CREATE TYPE BOOK\_TYPE(book\_id INT, book\_title VARCHAR(100), editor INT, month VARCHAR(10), year INT.
- c. CREATE TYPE AUTHOR\_PUB\_TYPE(author\_id INT, pub\_id INT, author\_position INT)
- d. CREATE TYPE PUB\_TYPE (pub\_id INT, title VARCHAR(25), book\_id INT)