

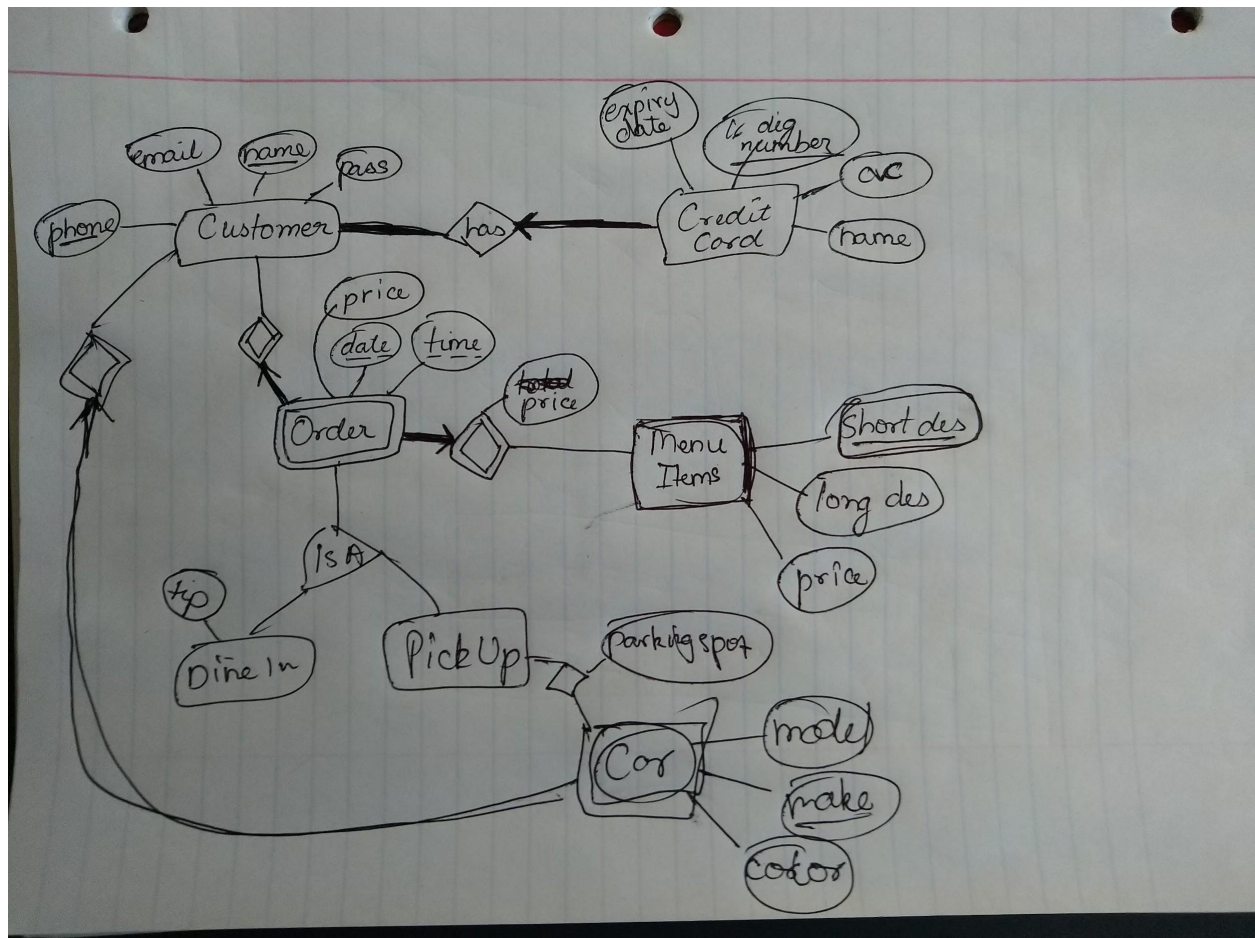
CS 336 - Fall 2021

Principles of Information and Data Management

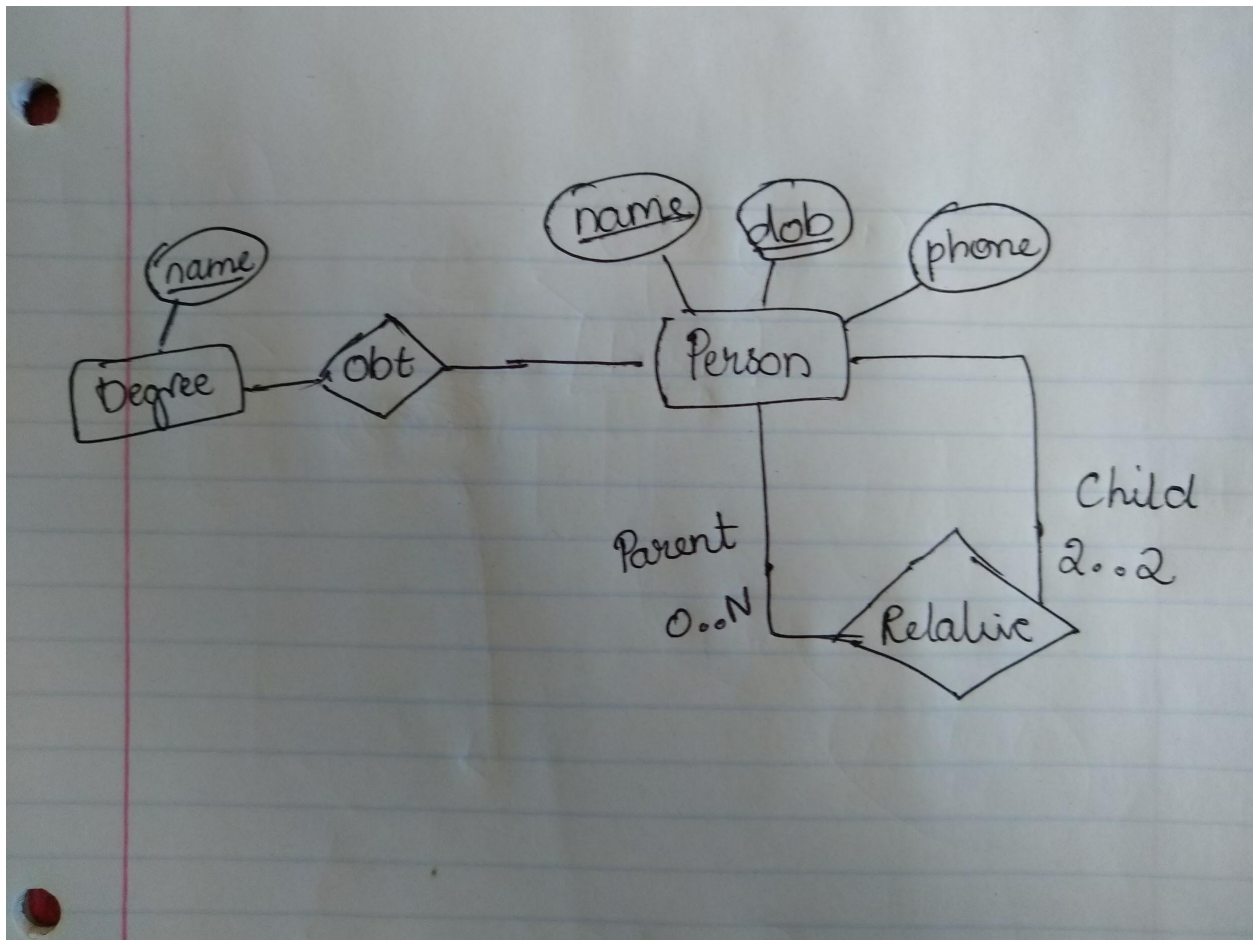
\*Midterm 1

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Q2



Q3

Physician ( SSN : int, name : varchar(200), address : varchar(250), phone : int,  
primary key (SSN) )

Out\_Patient ( ID : int, admit\_date : date,  
checkback\_date : date,  
SSN : int  
primary key (ID)  
foreign key (SSN) references Physician NOT NULL  
)

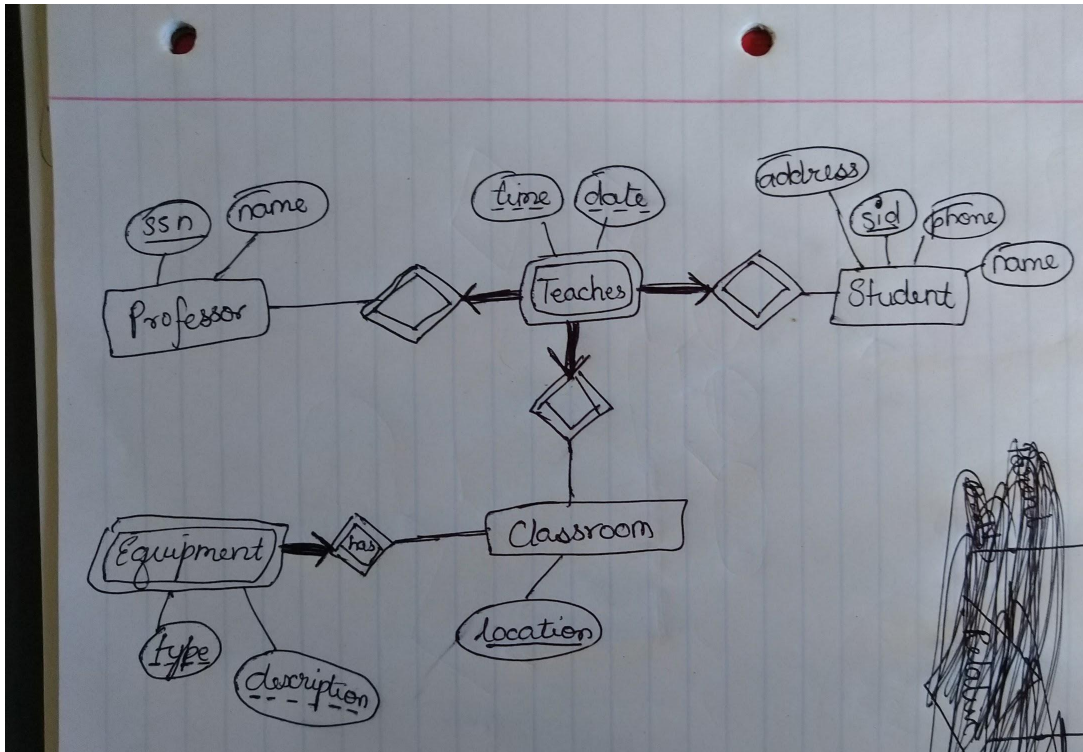
Resident\_Patient ( ID : int, admit\_date : date,  
discharge\_date : date,  
SSN : int  
primary key (ID)  
foreign key (SSN) references Physician NOT NULL  
foreign key (room\_id, bed#) references Bed NOT NULL  
)

Bed ( bed# : int, room\_id : int,  
is\_ICU\_Bed : char(1) ,  
primary key (room\_id, bed#) ,  
foreign key (room\_id) references Room NOT NULL )

Room ( room\_id : int,  
primary key (room\_id) )

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Note: is\_ICU\_Bed : char(1) is a 1 for true, 0 for false to represent the two entities.



Q4.

Q5.

- a. Assuming cid is the primary key of Company. Delete from Company where cid=2 will fail because:
- Did 2,3, and 10 have foreign key cid value of 2.
  - Foreign key cid references Company on delete restrict clause in Department schema will prevent (restrict) the deletion of the second row in Company where cid=2.

b.

Corp:	company:	Dept:
id	cid   id	did   cid
17	2   17	2   2
20	4   20	3   2
		10   2
		11   4

~~Department:~~

c.

Corp:	Comp:	Dept
id	cid   id	did   cid
15	1   15	1   1
17	6   17	2   null
20	3   15	3   null
	4   20	4   3
	5   15	5   5
		6   1
		7   3
		8   3
		9   1
		10   null
		11   4
		12   5