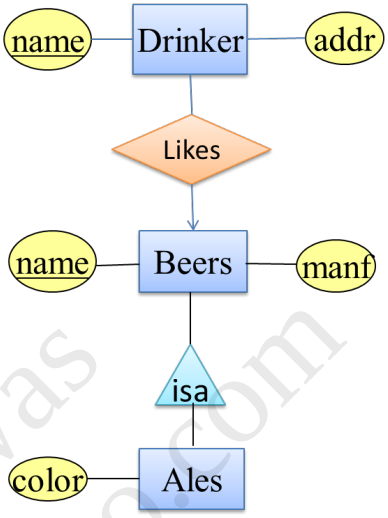
Name: _____ USC ID: _____

INF 551 – Fall 2017 (Afternoon section)

Quiz 7: Relational modeling & SQL (10 points), 15 minutes

1. [4 points] Convert the following E/R diagram into a relational model. Use **the E/R approach** in converting subclasses. Note that we assume that each drinker likes at most one beer. **Do NOT create a separate relation for Likes.**



Drinker(name, addr, LikedBeers)
Beers(name, manf)
Ales(name, color)

Drinker(name, addr), LikedBeers
~~Likes(Drinker, Beer)~~
Beers(name, manf)
Ales(name, ~~manf,~~ color)

2. [6 points] Using the relational model in the above question, write an SQL query for each of the following questions.

a. [2 points] Find beer name liked by "Steve".

```
Select LikedBeer as BeerLikedBySteve
From Drinker
Where name = "Steve";
```

b. [2 points] Find names of all drinkers who like Ales beers.

```
Select name as drinker
From Drinker
Where LikedBeers in
(select name from Ales);
```

c. [2 points] Find names of all pairs of beers that are made by the same manufacturer. Show the names in the alphabetic order.

```
Select b1.name, b2.name
From Beers b1, Beers b2
Where b1.manf = b2.manf and b1.name<b2.name;
```