Sample Questions

Q1. SQL Statement interpretation

Consider the following SQL statement:

```
Select   C_Name, Hourly_Rate, Expertise_Level
From    Consultant
Where   Hourly_Rate <> 75;
```

What is the best interpretation for this query?

Q2. DDL Interpretation

Recall the DDL Create table statement below. Provide an interpretation of the relation created.

```
Create table Artist (
  artist_ID numeric (4) not null,
  name   varchar2(20) not null,
  DOB    date not null,
  DOD    date,
  CONSTRAINT artist_pk PRIMARY KEY (artist_ID)
);
```

Q3. Product Query

Consider the following query.

```
Select   P_Code, P_Price
From Product
Where  P_Price >= (Select AVG (P_Price) from Product);
```

Provide a business interpretation for this query.

When would this make a reasonable ad hoc query?

Q4. Product Insertion

INSERT INTO PRODUCT

VALUES ('BRT-345','Titanium drill bit','18-Oct-2021', 75, 10, 4.50, 0.06, NULL);

Write down a business interpretation.

Now create a similar query for a student relation with attributes Student_ID, name, and email. Populate the database with several records and show a sample command to do so.

Q5. SQL

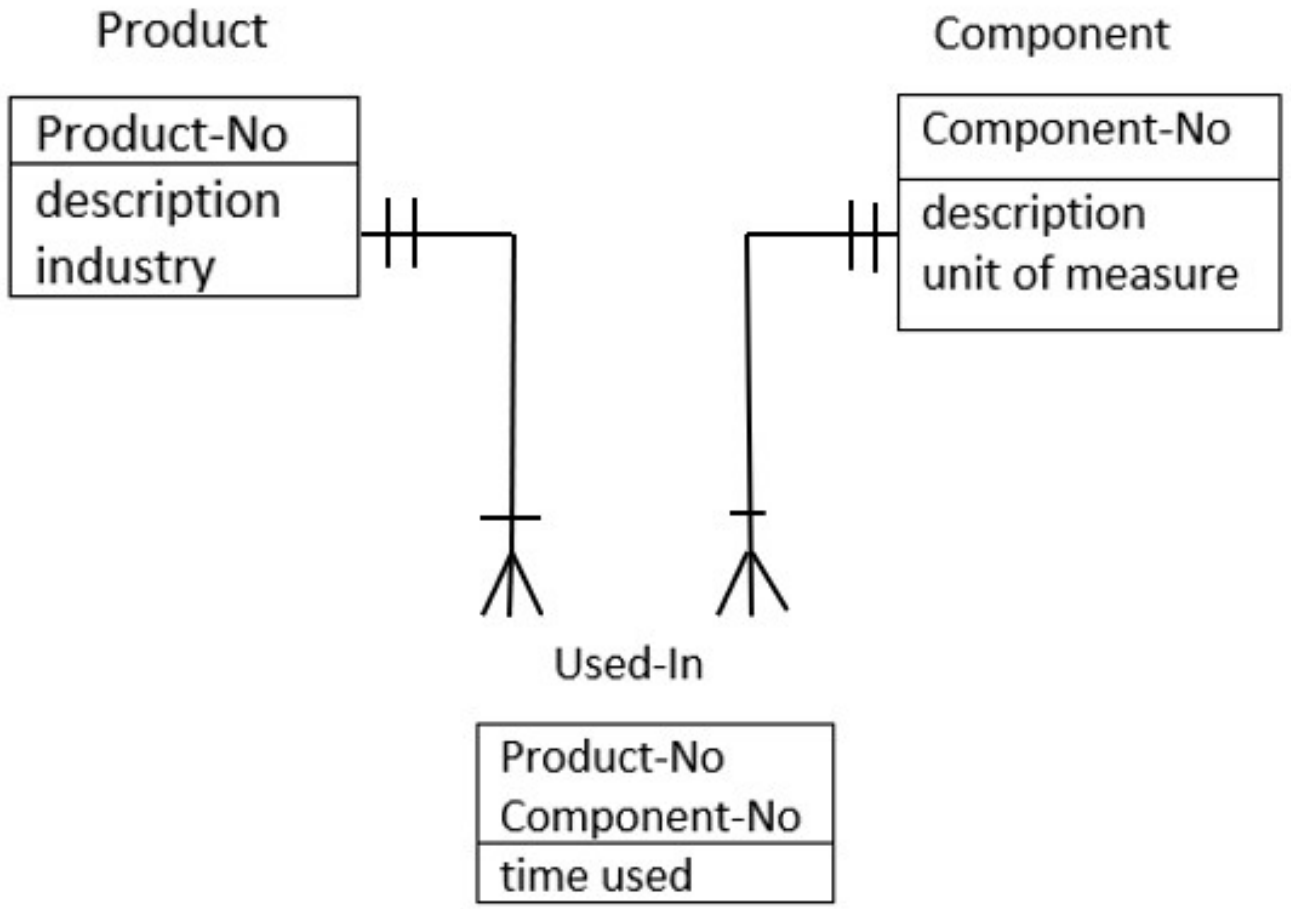
Consider the relations:

SKU_Data: (SKU, description, dept#)
Department: (Dept#, dept_name, manager_name)

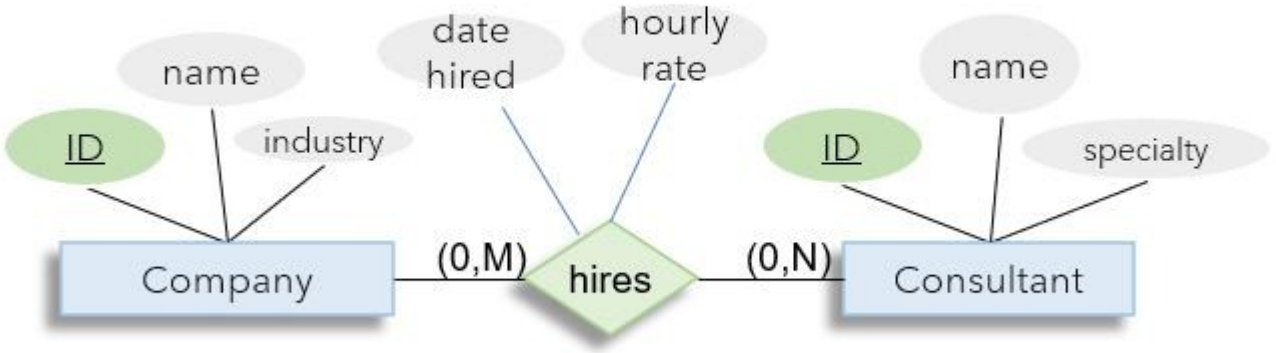
Write a query to find the names of the manager for baseballs.

Q6. Assume that a furniture company has products, described by a product number, description, and cost. Each product is composed of components, which are described by the component number, description, and unit of measure. These components are used to make one or many products. Raw Materials are also considered to be components. In both cases, we need to keep track of the time at which the components go into making the product.

Write a query to list the description of the products that were used over 60 minutes.



Q7. Write down the corresponding relational model

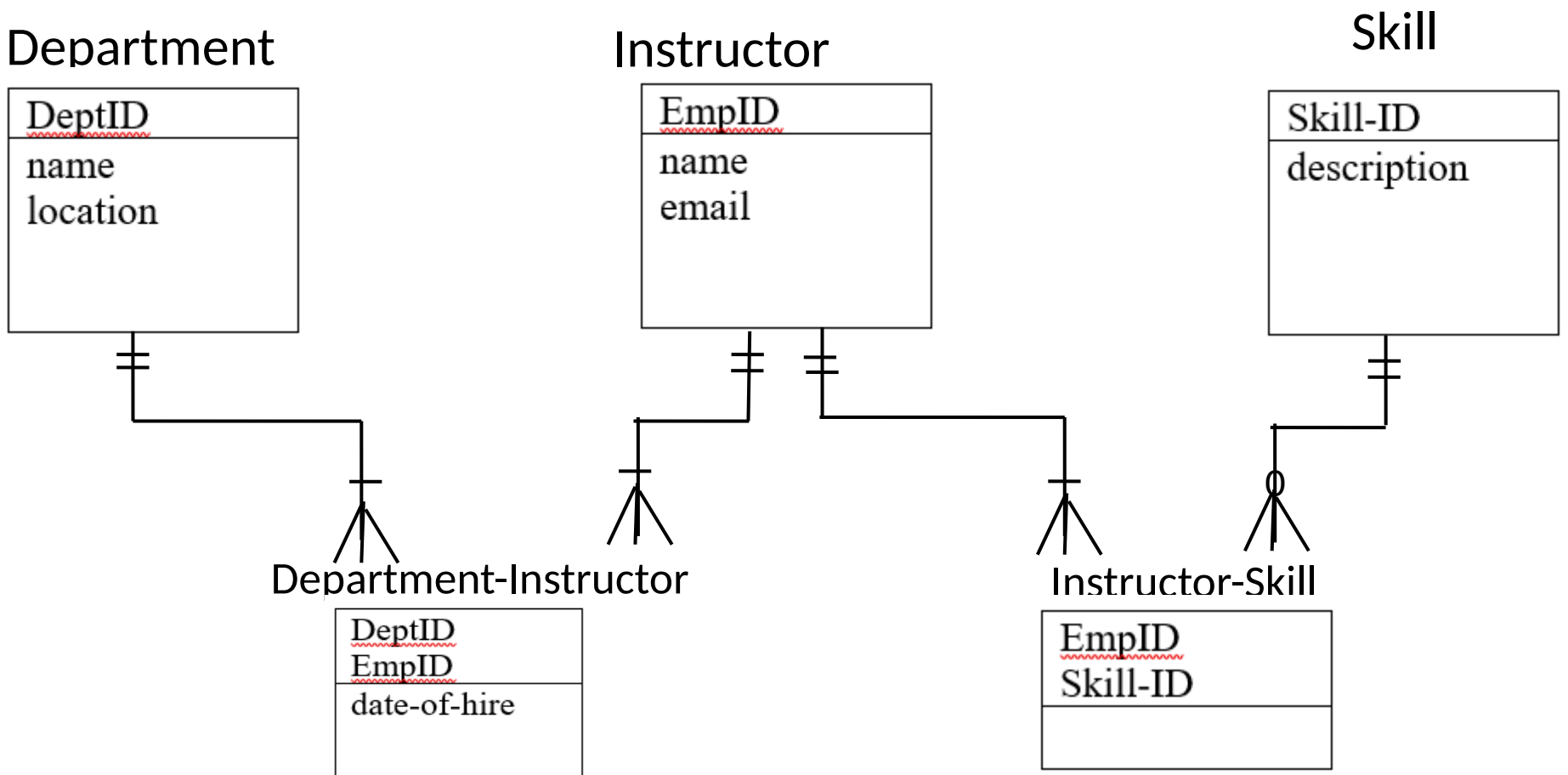


Q8. Skills SQL

Skill: (Skill_ID, description, min-yrs-experience-required)
Student: (Student#, name, email, phone)
Instructor: (InstructorID, name, data certified)
Instructor-Teaches: (InstructorID, Skill_ID, date_certified)
Acquires-Skill: (Student#, Skill_ID, date_acquired)

Queries:
List the names of the instructors who teach Database Management.

Q9. Example: Instructors assigned to department
Write down the corresponding relational model.



Q10. Car Rental: Populate Tables

Reservation: (Res#, start-date, end-date, date-of-res, cust#)
Customer: (Cust#, type, name)
Vehicle: (Tag#, size, type, make)
Reserve-Vehicle: (Res#, Tag#)

Reservation

Res#	start-date	end-date	date-of-res	cust#
143	11/7/2020	11/10/2020	11/5/2020	123

Reserve-Vehicle

Res#	Tag#
143	V147

Customer

Cust#	type	name
123	AAA	Sean Le
577	frequent	Victor Dass

Vehicle

Tag#	size	type	make
V147	medium	standard	Ford
V148	large	luxury	BMW