1. Employees can work on many projects and projects can have many employees
2. Employees can work on more than one project at a time
3. Employees may be pulled off projects and then put back on at a later date (hint: composite key in bridge table needs a date to be unique)
4. Employees can have many skills and skills can have many employees associated with it

Keep in mind that integrity constraints can be executed after the CREATE TABLE statements using the ALTER statement.

Create table employee (

Employee\_id int primary key,

Name varchar(30),

dob date,

ssn varchar(11),

address varchar(50),

job\_title char(30),

skill int,

project int

)

Create table projects (

Project\_id int primary key,

Project\_name varchar(30),

Start\_date timestamp,

End\_date timestamp,

description text

)

Create table skills (

Skill\_id int primary key,

Skill\_name varchar(30),

description text

)

Alter table employee

Add foreign key (skill) references skill(skill\_id)

Add foreign key (project) references project(project\_id)

**Question 4**

Provide the SQL statement that returns the projectid, projectname, employeename and effective and term dates of employees on the project named "HIPPA Update"

**Question 5**

Provide the SQL statement that creates a view called v\_NY\_Employees. This view, when called, must return the EmployeeID, Title, any projects assigned to that employee and effective and term dates for employees located in new york.  
\*  
\* Demonstrate how the view may be used to further limit results to projects employees are currently working on (hint: term date will be null)  
\*  
\* IMPORTANT NOTE: There are two parts to this question. First, you must write the query that creates the view and then you must write the query that uses this view to limit results to projects currently being worked on.

**Question 6**

Provide the SQL statement that returns the empolyee title that has the most employees with that title. (Hint: Order descending limt rows to 1)

**Question 7**

Provide the SQL statement that returns the names and number of projects of all employee(s) with the most number of projects

**Question 8**

Provide the SQL statement that returns names, title and skills of all employees who are experienced in skills named "R" or "Python" (You may use the "IN" Operator) and are not on any projects (You may use the "NOT IN" Operator).

**Question 9**

Provide the SQL statement that lists employees, their age, and their skill that are not on any projects (HINT: NOT IN OPERATOR)

Select name, diffdate(yyyy, dob, getdate()) as age,

**Question 10**

Write a table function named 'skills\_needed\_for' that returns all skills associated with employees for the given project name. The function should not return a table with employees, just the project name and skills.

**Question 11**

Write a query that uses the table function created above in the question-10.