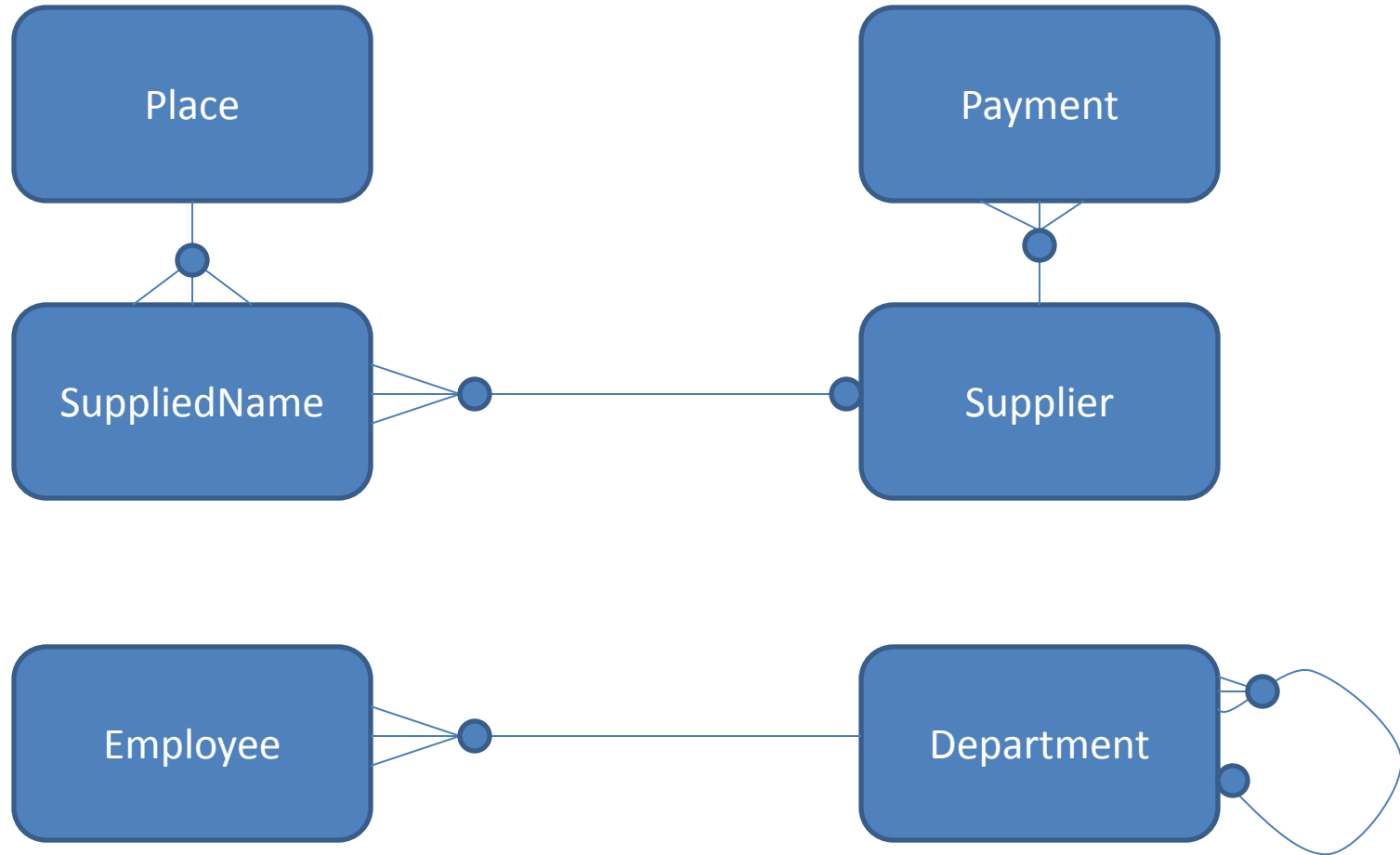


Names Inc Schema



Place

- PlaceID (key)
- Latitude (Btree Index)
- Longitude (Btree Index)
- Elevation
- Population
- Type
- Country
- ASCIIName

SuppliedName

- SnID (key)
- Name (Btree Index)
- Language
- Status
- Standard
- PlaceID
- SupplierID
- DateSupplied
- Price

*Status is “type of name”

(This is more like a relationship between place & supplier)

Supplier

- SupplierID (key)
- Name
- Country
- ReliabilityScore
- ContactInfo
- ProductivityScore

Payment

- SupplierID
- Date
- Amount
- PaymentID (key)

Employee

- EmpID (key)
- Name
- TaxID
- Country
- HireDate
- BirthDate
- Salary
- Bonus
- DeptID
- AddressInfo

More Constraints

- $\text{Salary} > 0$
- $\text{Bonus} \leq \text{Salary}$

Department

- DeptID (key)
- DeptName
- DeptHeadID (EmpID of manager)
- DeptHeadUserID (database user id of manager)
- DeptAA (EmpID of administrative assistant)
- ParentDeptID
- Location
- DeptType

Access Rights

- All employees can see place and name information
- Only HR employees can access all HR info.
- Only some HR employees can change the information in the HR portion of the DB
- Managers can see their employee information
- Managers can update their employee compensation.

Queries/Reports

1. Find the elevation and population of a place.
2. Find a place by a partial name.
3. Find a place in a latitude/longitude box (within a range of latitudes/longitudes)
4. Find a place by any of its names, listing its type, latitude, longitude, country, population and elevation.
5. List all the alternate names of a place, along with language, type of name, and standard.
6. Find the supplier who supplied a particular name, along with other information about the supplier.
7. Find how many more names are in each language this month
(you can assume none are deleted – ever!)
8. Find how much was paid out to suppliers this month, total
9. Find how much was paid out to suppliers this month, by supplier.
10. Show all employee information in a particular department.
11. Increase salary by 10% and set bonus to 0 for all employees in a particular department.
12. Show all current employee information sorted by manager name and employee name.
13. Show all supplier information sorted by country, including number of names supplied in current month and potential suppliers.
14. Describe how you implemented the access restrictions on the previous page.
15. Describe how you implement the constraints shown in the ERD and on the employee info.

Guide to Project Work

- All commands to implement the design with all the necessary tables, attributes, indexes and constraints should go in “provision-**yourname**.sql”. I will run this file on my system in the classdb schema as the user classdb, and see what it creates. Please make sure to have a comment that tells me whether you expect me to use MySQL or SQLPlus. Do not use “CREATE DATABASE” or “CONNECT” in this file.
- Example commands to show how a properly authorized user of the system would use SQL to get the information requested, or do the updates requested on the previous page, go in “query-**yourname**.sql”.
- Example commands must not include any attributes shown in grey – i.e. you must assume the database is exactly as per the ERD defined by the black items. I want to see if you can produce a SQL command given a database where the information is stored the way it is specified by this ERD.
- Except for 14 and 15, I expect a single example command that accomplishes the task. Hopefully the set up commands for 14 and 15 are in the provision file, and your answer to 14 and 15 simply tells me where to look and anything special a user needs to do.
- **yourname** should be the first letter of your first name and your lastname as it appears in the UCSC registration system.
- The submissions should be your own work. Do not share them with others.