Database Project

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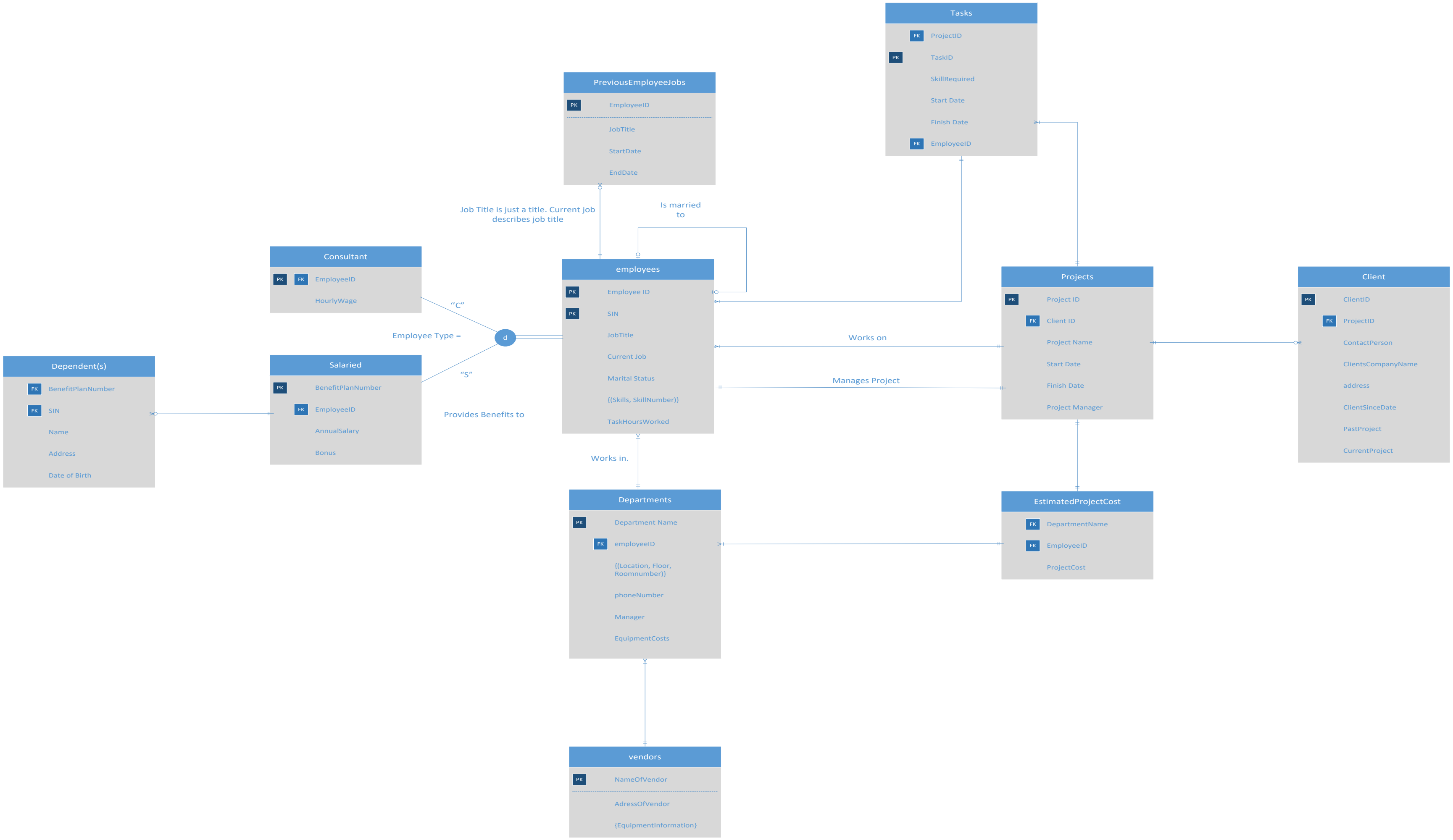
Logical Model



Commmands

FinalSQLScripts.sql 1/2

```
--1 Create a SELECT query that uses a condition in the WHERE Clause
SELECT EMPLOYEEID, HOURLYWAGE
FROM Consultant_T
WHERE HourlyWage < 45;

--2 Create a SELECT query that joins at least four tables
SELECT Employees_T.EmployeeID, PreviousEmployeeJobs_T.JobTitle,
EstimatedProjectCosts_T.ProjectCost, Departments_T.DepartmentName
FROM Employees_T
INNER JOIN PreviousEmployeeJobs_T ON Employees_T.EmployeeID = PreviousEmployeeJobs_INNER JOIN EstimatedProjectCosts_T
ON Employees_T.EmployeeID = EstimatedProjectCosts_INNER JOIN Departments_T ON Employees_T.EmployeeID = Departments_T.

--3 Create a SELECT query that uses an Aggregate function
SELECT SUM(ProjectCost)
FROM EstimatedProjectCosts_T;

--4 Create a SELECT query that includes an ORDER BY Clause
SELECT EMPLOYEEID, ANNUALSALARY, BONUS
FROM Salaried_T
ORDER BY AnnualSalary DESC;

--5 Create a SELECT query that includes GROUP BY and HAVING Clauses
SELECT TaskID, COUNT(SkillRequired), EmployeeID, ProjectID
FROM Tasks_T
GROUP BY TaskID, EmployeeID, ProjectID
HAVING COUNT(SkillRequired) = 1;
```

```
--6 Create a VIEW that is based on at least THREE Tables
CREATE OR REPLACE VIEW our_view AS
SELECT Employees_T.EmployeeID, PreviousEmployeeJobs_T.JobTitle,
EstimatedProjectCosts_T.ProjectCost, Departments_T.DepartmentName
FROM Employees_T
INNER JOIN PreviousEmployeeJobs_T ON Employees_T.EmployeeID = PreviousEmployeeJobs_INNER JOIN EstimatedProjectCosts_T
ON Employees_T.EmployeeID = EstimatedProjectCosts_INNER JOIN Departments_T ON Employees_T.EmployeeID = Departments_T.

--7 Create a SELECT query that includes an OUTER JOIN
SELECT Employees_T.CurrentJob, PreviousEmployeeJobs_T.JobTitle AS PreviousJob
EstimatedProjectCosts_T.ProjectCost, Departments_T.ManagerName
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FULL JOIN PreviousEmployeeJobs_T ON Employees_T.EmployeeID = PreviousEmployeeJobs_FULL JOIN EstimatedProjectCosts_T ON
Employees_T.EmployeeID = EstimatedProjectCosts_FULL JOIN Departments_T ON Employees_T.EmployeeID =
Departments_T.EmployeeID

--8 Create a SELECT query that includes a SUB QUERY
SELECT EquipmentCosts, DepartmentName
FROM Departments_T
WHERE EquipmentCosts <
(SELECT EquipmentCosts
FROM Departments_T
WHERE DepartmentName = 'SoftwareDeveloping');

--9 Create a SELECT query that uses a SELF JOIN
SELECT A.EmployeeID AS EmployeeID1, B.EmployeeID AS EmployeeID2,
A.JobTitle
FROM Employees_T A, Employees_T B
WHERE A.EmployeeID <> B.EmployeeID
AND A.JobTitle = B.JobTitle;
```

```sql
--10 Create a SELECT query that uses the CASE conditional structure
SELECT DepartmentName, EmployeeID, ProjectCost,
CASE
WHEN ProjectCost < 30000 THEN 'Low'
WHEN ProjectCost >= 30000 AND ProjectCost < 60000 THEN 'Medium'
WHEN ProjectCost >= 60000 AND ProjectCost < 90000 THEN 'High'
ELSE 'REALLY HIGH!'
END as CostBracket
FROM EstimatedProjectCosts_T;
```

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Results

```
Script Output 1/3
EMPLOYEE HOURL
-------- -----
11346546 42.25
10984654 40.00
11265483 35.50

EMPLOYEE JOBTITLE PROJECTCOS DEPARTMENTNAME
-------- ---------------------------------------- ---------- ----------------------------------------
11274083 Senior Programmer 55000 SoftwareDeveloping
11346546 Senior Programmer 38000 ProjectTesting
10984654 Junior Programmer 22000 QualityAssurance
10087256 Manager 128000 HumanResources
11265483 Junior Programmer 75000 Sales


SUM(PROJECTCOST)
----------------
318000


EMPLOYEE ANNUALSA BONUS
-------- -------- --------
11265483 85000 6500
11274083 75000 10000
10087256 56000 7000
11346546 55000 12000
10984654 35000 8000
```

```
TASKID COUNT(SKILLREQUIRED) EMPLOYEE PROJECTI
------------ -------------------- -------- --------
112740814523 1 11274083 99672831
143543426467 1 11346546 94538574
Script Output 2/3
123441014313 1 10087256 76047354
187644614563 1 10984654 65739543
165464419927 1 11265483 65894559

View OUR_VIEW created.
```

```
CURRENTJOB PREVIOUSJOB ---------------------------------------- ---------------------------------------- Senior Programmer Senior Programmer
Senior Programmer Senior Programmer Junior Programmer Junior Programmer Senior Programmer Manager Junior Programmer
Junior Programmer
```

```
EQUIPMENTC DEPARTMENTNAME
---------- ----------------------------------------
22646 ProjectTesting
32134 Sales
```

```
EMPLOYEE EMPLOYEE JOBTITLE
-------- -------- ----------------------------------------
11346546 11274083 Senior Programmer
11274083 11346546 Senior Programmer
11265483 10984654 Junior Programmer
10984654 11265483 Junior Programmer
```

```
DEPARTMENTNAME EMPLOYEE PROJECTCOS COSTBRACKET
---------------------------------------- -------- ---------- ------------
SoftwareDeveloping 11274083 55000 Medium
ProjectTesting 11346546 38000 Medium
Script Output 3/3
QualityAssurance 10984654 22000 Low
HumanResources 10087256 128000 REALLY HIGH!
Sales 11265483 75000 High
```