Ejercicio 1

a. Toda la Información de Proyectos por cada departamento

* Query:

SELECT D.name AS Department, P.title AS Project, P.start_date, P.end_date, P.budget FROM departments D
INNER JOIN employees E ON D.id = E.department_id
INNER JOIN [dbo].[employees_projects] EP ON E.id = EP.employee_id
INNER JOIN projects P ON EP.[project_id] = P.id;

| | Department | Project | start_date | end_date | budget |
|---|-------------|--------------------------|------------|------------|---------|
| 1 | Reporting | Update TPS Reports | 2011-07-20 | 2011-10-28 | 100000 |
| 2 | Silly Walks | Desing 3 New Silly Walks | 2009-05-11 | 2009-08-19 | 100 |
| 3 | Engineering | Build a cool site | 2011-10-28 | 2012-01-26 | 1000000 |
| 4 | Engineering | Build a cool site | 2011-10-28 | 2012-01-26 | 1000000 |
| 5 | Engineering | Build a cool site | 2011-10-28 | 2012-01-26 | 1000000 |

b. Cantidad de Proyectos por departamento

*Query:

SELECT D.name AS Department, COUNT(P.id) AS NumberOfProjects
FROM departments D
LEFT JOIN employees E ON D.id = E.department_id
LEFT JOIN employees_projects EP ON E.id = EP.employee_id
LEFT JOIN projects P ON EP.project_id = P.id
GROUP BY D.name;

| | Department | NumberOfProjects |
|---|-------------|------------------|
| 1 | Biz Dev | 0 |
| 2 | Engineering | 3 |
| 3 | Marketing | 0 |
| 4 | Reporting | 1 |
| 5 | Silly Walks | 1 |

c. Departamentos con más de un (1) Proyecto

*Query:

SELECT D.name AS Department
FROM departments D
LEFT JOIN employees E ON D.id = E.department_id
LEFT JOIN employees_projects EP ON E.id = EP.employee_id
LEFT JOIN projects P ON EP.project_id = P.id
GROUP BY D.name
HAVING COUNT(P.id) > 1;

d. Nombre Completo de cada empleado asignados a cada Proyecto

* Query:

SELECT P.title AS Project, CONCAT(E.first_name, ' ', E.last_name) AS EmployeeName FROM projects P

INNER JOIN employees_projects EP ON P.id = EP.project_id INNER JOIN employees E ON EP.employee_id = E.id;

| | Project | EmployeeName |
|---|--------------------------|---------------|
| 1 | Update TPS Reports | John Smith |
| 2 | Desing 3 New Silly Walks | Ava Muffinson |
| 3 | Build a cool site | Cailin Ninson |
| 4 | Build a cool site | Mike Peterson |
| 5 | Build a cool site | lan Peterson |