

SQL Employees and Departments Case

Reference tables:

EMPLOYEES						
ID	Name	Age	Salary	Bonus	Address City	Dep_Id
1	Mary	25	1000		Tarragona	1
2	John	51	900	300	Barcelona	2
3	Peter	34	1500		Barcelona	2
4	Ann	42	2300	250	Barcelona	3
5	Lisa	33	1700		Tarragona	3

DEPARTMENTS					
ID	Name	Location	Budget Last Year	Budget This Year	Mgr_Id
1	HR	Tarragona	10	12	1
2	Sales	Barcelona	20	25	2
3	BI	Barcelona		7	5
4	R+D	Barcelona	5	10	

- 1 Make the DDL script to create the tables EMPLOYEES and DEPARTMENTS. Consider every field must have the most suitable data type.
2. Make the DML script to load the tables with the same data you have in the reference tables.
3. Make the following queries:

Query	Description	Output						
3.1.	% of departments without manager	% departments no manager						
		25						
3.2.	Department with the highest increase of budget from last year to this year and budget amount increase	Department name	amount					
		BI	7					
3.3.	For each employee, the name of the department they manage	Employee name	Department Managed					
		Mary	HR					
		John	Sales					
		Peter						
		Ann						
		Lisa	BI					
3.4.	Name of each manager and average salary in their department	Manager	Amount					
		Mary	1000					
		John	1200					
		Lisa	2000					
3.5.	Number of departments managed by an employee belonging to another department	departments						
		0						
3.6.	For each manager, employee id and location of the department they manage	employee id	Location					
		1	Tarragona					
		2	Barcelona					
		5	Barcelona					
3.7.	For the department with the highest budget this year, the name of the manager and the name and the budget of the department they manage	Manager name	Department name	Budget				
		John	Sales	25				
3.8.	Name of departments spending less than 2000 in salaries	Department name						
		HR						
		R+D						
3.9.	For the oldest employee of every department, show all the employee information (ID, Name, Age, Salary, Bonus, Address City, Dep_Id)	ID	Name	Age	Salary	Bonus	AddressCity	Dep_Id
		1	Mary	25	1000	NULL	Tarragona	1
		2	John	51	900	300	Barcelona	2
		4	Ann	42	2300	250	Barcelona	3
3.10.	For each of the employee's address city, calculate the following metrics: Total number of employees, Total number of employees with a bonus, Total salary of employees with bonus, Average age, Average salary	Address City	Total NumEmployees	Total NumEmployees WithBonus	Total Salary Employees WithBonus	Average Age	Average Salary	
		Barcelona	3	2	3200	42	1566	
		Tarragona	2	0	0	29	1350	