

SQLServer

Part 1:

Create the database named “SD32-Company”

1. Create the following tables with all the required information and load the required data as specified in each table using insert statements[at least two rows]

Tablename	Details					Comments
Department						1-Create it programmatically 2-Create a new user data type named loc with the following Criteria: <ul style="list-style-type: none">nchar(2)default:NYcreate a rule for this Datatype :values in (NY,DS,KW)) and associate it to the location column
	DeptNo (PK)	DeptName	Location			
	d1	Research	NY			
	d2	Accounting	DS			
	d3	Markiting	KW			
Employee						1-Create it programmatically 2-PK constraint on EmpNo 3-FK constraint on DeptNo 4-Unique constraint on Salary 5-EmpFname, EmpLname don't accept null values 6-Create a rule on Salary column to ensure that it is less than 6000
	EmpNo (PK)	Emp Fname	Emp Lname	Dept No	Salary	
	25348	Mathew	Smith	d3	2500	
	10102	Ann	Jones	d3	3000	
	18316	John	Barrimore	d1	2400	
	29346	James	James	d2	2800	
	9031	Lisa	Bertoni	d2	4000	
	2581	Elisa	Hansel	d2	3600	
	28559	Sybl	Moser	d1	2900	

Project					1-ProjectName can't contain null values 2-Budget allow null
	ProjectNo (PK)	ProjectName	Budget		
	p1	Apollo	120000		
	p2	Gemini	95000		
	p3	Mercury	185600		
Works_on					1-Create it EmpNo INTEGER -2 NOT NULL 3-ProjectNo doesn't accept null values 4-Job can accept null 5-Enter_Date can't accept null and has the current system date as a default value[visually] 6-The primary key will be EmpNo,ProjectNo) 7-there is a relation between works_on and employee, Project tables
	EmpNo (PK)	ProjectNo (PK)	Job	Enter_Date	
	10102	p1	Analyst	2006.10.1	
	10102	p3	Manager	2012.1.1	
	25348	p2	Clerk	2007.2.15	
	18316	p2	NULL	2007.6.1	
	29346	p2	NULL	2006.12.15	
	2581	p3	Analyst	2007.10.15	
	9031	p1	Manager	2007.4.15	
	28559	p1	NULL	2007.8.1	
	28559	p2	Clerk	2012.2.1	
	9031	p3	Clerk	2006.11.15	
	29346	p1	Clerk	2007.1.4	
Testing Referential Integrity	1-Add new employee with EmpNo =11111 In the works_on table [what will happen] 2-Change the employee number 10102 to 11111 in the works on table [what will happen] 3-Modify the employee number 10102 in the employee table to 22222. [what will happen] 4-Delete the employee with id 10102				
Table modification	1-Add TelephoneNumber column to the employee table[programmatically] 2-drop this column[programmatically] 3-Bulid A diagram to show Relations between tables				

Part 2: USE Company_SD

1. Write a query to display the first name, last name, department number, salary, and a ranking number for each employee within their department based on salary in descending order. Show only the third top-paid employee from each department.
2. For each department, show the project that has the second highest total hours worked by its employees, along with the project name, department number, and total hours.
3. Write a query to divide employees into four salary groups. Display each employee's name, salary