

## SQLServer Lab

### **Part 1:**

- a. Create the following database using wizard Consists of 2 File Groups { SecondaryFG (has two data files) and ThirdFG (has two data files) }

Database Name	SD
Location	(Default path)
Initial size for mdf	25 MB
File Group for mdf	Primary
File Growth for mdf	10%
Max. File Size for mdf	400MB
Log File Name	SD-Log
Location for Log	(Default Path)
Initial Size for Log	15 MB
File Growth	20%
Log File Max. Size	400 MB

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	DeptNo (PK)	DeptName	Location	1-Create it by code 2-Create a new user data type named loc with the following Criteria:
	d1	Research	NY	<ul style="list-style-type: none"> <li>• nchar(2)</li> <li>• default:NY</li> <li>• create a rule for this Datatype :values in (NY,DS,KW)) and associate it to the</li> </ul>
	d2	Accounting	DS	
	d3	Marketing	KW	

			location column			
Employee	EmpNo (PK)	Emp Fname	Emp Lname	Dept No	Salary	1-Create it by code 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
	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	ProjectNo (PK)	ProjectName	Budget			1-Create it using wizard 2-ProjectName can't contain null values 3-Budget allow null
	p1	Apollo	120000			
	p2	Gemini	95000			
	p3	Mercury	185600			
Works_on	EmpNo (PK)	ProjectNo (PK)	Job	Enter_Date		1-Create it using wizard 2- EmpNo INTEGER 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
	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		

	<table border="1"> <tr><td>28559</td><td>p2</td><td>Clerk</td><td>2012.2.1</td></tr> <tr><td>9031</td><td>p3</td><td>Clerk</td><td>2006.11.15</td></tr> <tr><td>29346</td><td>p1</td><td>Clerk</td><td>2007.1.4</td></tr> </table>	28559	p2	Clerk	2012.2.1	9031	p3	Clerk	2006.11.15	29346	p1	Clerk	2007.1.4	<p>EmpNo,ProjectNo)</p> <p>7-there is a relation between works_on and employee, Project tables</p>
28559	p2	Clerk	2012.2.1											
9031	p3	Clerk	2006.11.15											
29346	p1	Clerk	2007.1.4											
Testing Referential Integrity	<p>1-Add new employee with EmpNo =11111 In the works_on table [what will happen]</p> <p>2-Change the employee number 10102 to 11111 in the works on table [what will happen]</p> <p>3-Modify the employee number 10102 in the employee table to 22222. [what will happen]</p> <p>4-Delete the employee with id 10102</p>													
Table modification	<p>1-Add TelephoneNumber column to the employee table[programmatically]</p> <p>2-drop this column[programmatically]</p> <p>3-Bulid A diagram to show Relations between tables</p>													

2. Create the following schema and transfer the following tables to it
  - a. Company Schema
    - i. Department table (Programmatically)
    - ii. Project table (using wizard)
  - b. Human Resource Schema
    - i. Employee table (Programmatically)
3. Write query to display the constraints for the Employee table.
4. Create Synonym for table Employee as Emp and then run the following queries and describe the results
  - a. Select \* from Employee
  - b. Select \* from [Human Resource].Employee
  - c. Select \* from Emp
  - d. Select \* from [Human Resource].Emp
5. Increase the budget of the project where the manager number is 10102 by 10%.
6. Change the name of the department for which the employee named James works.The new department name is Sales.

7. Change the enter date for the projects for those employees who work in project p1 and belong to department 'Sales'. The new date is 12.12.2007.
8. Delete the information in the works\_on table for all employees who work for the department located in KW.
9. Try to Create Login Named(ITIStud) who can access Only student and Course tablesfrom ITI DB then allow him to select and insert data into tables and deny Delete and update