SQLServer Lab

Part 1:

a. Create the following database "visually" Consists of 2 File Groups { SeconderyFG (has two data files) and ThirdFG (has two data files) }

Database Name	SD32-Company
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	SD30-Company-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 programmatically 2-Create a new user data type named loc with the following Criteria: • nchar(2) • default:NY • create a rule for this Datatype :values in (NY,DS,KW)) and associate it to the
	d1	Research	NY	
	d2	Accounting	DS	
	d3	Markiting	KW	

		location column
Employee	**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	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
Project	**ProjectNo (PK)** / **ProjectName** / **Budget** p1 / Apollo / 120000 p2 / Gemini / 95000 p3 / Mercury / 185600	1-Create it visually 2-ProjectName can't contain null values 3-Budget allow null
Works_on	**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	1-Create it visually 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

<table>
<tr><td></td><td><table>
<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></td><td>EmpNo,ProjectNo)
7-there is a relation between works_on and employee, Project tables</td></tr>
<tr><td>Testing Referential Integrity</td><td colspan="2">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</td></tr>
<tr><td>Table modification</td><td colspan="2">1-Add TelephoneNumber column to the employee table[programmatically]
2-drop this column[programmatically]
3-Bulid A diagram to show Relations between tables</td></tr>
</table>

2. Create the following schema and transfer the following tables to it
    a. Company Schema
        i. Department table (Programmatically)
        ii. Project table (visually)
    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.