1. Create tables

* Customers

CREATE TABLE [dbo].[Customers](

[CustomerId] [char](5) NOT NULL,

[CompanyName] [varchar](40) NOT NULL,

[ContactName] [char](30) NULL,

[Address] [varchar](60) NULL,

[City] [char](15) NULL,

[Phone] [char](24) NULL,

[Fax] [char](24) NULL

)

* Orders

CREATE TABLE [dbo].[Orders](

[OrderId] [int] NOT NULL,

[CustomerId] [char](5) NOT NULL,

[OrderDate] [datetime] NULL,

[ShippedDate] [datetime] NULL,

[Freight] [money] NULL,

[ShipName] [varchar](40) NULL,

[ShipAddress] [varchar](60) NULL,

[Quantity] [int] NULL

)

1. Add new column to Orders table

Alter table [dbo].[Orders]

ADD ShipRegion int NULL

1. Change column Data type

ALTER TABLE [dbo].[Orders]

ALTER COLUMN ShipRegion char(8) NULL

1. Drop table column

ALTER TABLE [dbo].[Orders]

DROP COLUMN ShipRegion

1. Insert row to the table

INSERT INTO [dbo].[Orders]

([OrderId] ,[CustomerId]

,[OrderDate],[ShippedDate]

,[Freight] ,[ShipName]

,[ShipAddress] ,[Quantity])

VALUES ( 10, 'ord01', getdate(), getdate(),

100.0, 'Windstar', 'Ocean',1)

1. Add default values to existing column.

ALTER TABLE DBO.ORDERS

ADD CONSTRAINT df\_curDateTime

DEFAULT getdate() FOR OrderDate

1. Rename column

SP\_RENAME 'dbo.customers.City','Town','COLUMN';

1. Sample Queries based on Que#8.
   1. Get all the rows of the Works\_On table.

|  |  |  |  |
| --- | --- | --- | --- |
| Emp\_No | Project\_id | Job | Enter\_Date |
| 10102 | P1 | Analyst | 1997-10-01 |
| 10102 | P3 | Manager | 1999-01-01 |
| 25348 | P2 | Clerk | 1998-02-05 |
| 18316 | P2 | NULL | 1998-06-01 |
| 29346 | P2 | NULL | 1997-12-15 |
| 2581 | P3 | Analyst | 1988-10-15 |
| 9031 | P1 | Manager | 1998-04-15 |
| 28559 | P1 | NULL | 1998-08-01 |
| 28559 | P2 | Clerk | 1992-02-01 |
| 9031 | P3 | Clerk | 1997-11-05 |
| 29346 | P1 | Clerk | 1998-01-04 |

* 1. Get Employee numbers of all clerks

Query:

select Emp\_No from [DotNetAssignments].[dbo].[Works\_On] where Job='Clerk'.

Result:

|  |
| --- |
| Emp\_No |
| 25348 |
| 28559 |
| 9031 |
| 29346 |

* 1. Get the employee numbers for employees working in project p2, and having employee numbers smaller than 10000. Solve this problem with two different but equivalent SELECT statements.

Query :

Select \* from [DotNetAssignments].[dbo].[Works\_On] wo

where wo.Project\_id='p2'

and EMP\_no in ( select emp\_no FROM [dbo].[Employee] where emp\_no<10000)

Result:

No records available for the above request.(Refer, data from 8.1, all the employee numbers are greater that 10000 )

* 1. Get the employee numbers for all employees who didn’t enter their project in 1998.

Query:

select Emp\_No from [DotNetAssignments].[dbo].[Works\_On]

where year(enter\_date)=1998

Result:

|  |
| --- |
| Emp\_No |
| 25348 |
| 18316 |
| 9031 |
| 28559 |
| 29346 |

* 1. Get the employee numbers for all employees who have a leading job( i.e., Analyst or Manager)

in project p1.

Query:

Select \* from [DotNetAssignments].[dbo].[Works\_On] wo

where wo.Project\_id='p1' and Job in ('Analyst','Manager')

Result:

|  |
| --- |
| Emp\_No |
| 10102 |
| 9031 |

* 1. Get the enter dates for all employees in project p2 whose jobs have not been determined yet.

Query:

Select enter\_date, \* from [DotNetAssignments].[dbo].[Works\_On] wo

where wo.Project\_id='p2' and Job IS NULL

Result:

|  |
| --- |
| enter\_date |
| 1998-06-01 |
| 1997-12-15 |

* 1. Get the employee numbers and last names of all employees whose first names contain two letter t’s.

Query:

SELECT Emp\_No, emp\_lname

FROM [DotNetAssignments].[dbo].[Employee]

WHERE Emp\_FName like'%tt%'

Result:

|  |  |
| --- | --- |
| Emp\_No | emp\_lname |
| 25348 | Smith |

* 1. Get the employee numbers and first names of all employees whose last names have a letter o or a as the second character and end with the letters es.

Query:

SELECT Emp\_No, emp\_fname

FROM [DotNetAssignments].[dbo].[Employee]

WHERE (Emp\_lName like'\_o%' OR Emp\_lName like'\_a%')

AND rtrim(Emp\_lName) like'%es'

Result:

|  |  |
| --- | --- |
| Emp\_No | emp\_fname |
| 10102 | Ann |
| 29346 | James |

* 1. Get the employee numbers of all employees whose departments are located in Seattle.

Query:

SELECT Emp\_No

FROM [DotNetAssignments].[dbo].[Employee] e

JOIN [dbo].[Department] d

ON e.Dept=d.[DepartmentId]

WHERE d.Location='seattle'

Result:

|  |
| --- |
| Emp\_No |
| 29346 |

* 1. Get Find the last and first names of all employees who entered their projects on 04.01.1998.

Query:

SELECT Emp\_fname, emp\_lname

FROM [DotNetAssignments].[dbo].[Employee] e

JOIN [dbo].[Works\_On] wo

ON e.emp\_no=wo.emp\_no

WHERE wo.enter\_date ='1998-01-04'

Result:

|  |  |
| --- | --- |
| Emp\_fname | emp\_lname |
| James | James |

* 1. Group all the departments using their locations.

Query:

SELECT Location,count(Location) NoOfDepartments

FROM [dbo].[Department]

group by Location

Result:

|  |  |
| --- | --- |
| Location | NoOfDepartments |
| Dallas | 2 |
| Seattle | 1 |

* 1. Find the biggest employee numbers.

Query:

SELECT Max(emp\_no)as BiggestEmpNo

FROM [DotNetAssignments].[dbo].[Employee]

Result:

|  |
| --- |
| BiggestEmpNo |
| 29346 |

* 1. Get the jobs that are done by more than two employees.

Query:

SELECT Job,Count(Emp\_no) EmpCount

FROM [dbo].[Works\_On]

group by Job

having Count(Emp\_no)>2

Result:

|  |  |
| --- | --- |
| Job | EmpCount |
| NULL | 3 |
| Clerk | 4 |

* 1. Find the employee numbers of all employees who are clerks or work for department d3.

Query:

SELECT e.Emp\_no

FROM [DotNetAssignments].[dbo].[Employee] e

JOIN [dbo].[Works\_On] wo

ON e.emp\_no=wo.emp\_no

JOIN [dbo].[Department] d

ON e.Dept=d.DepartmentId

WHERE wo.Job='Clerk' OR D.DepartmentId='d3'

Result:

|  |
| --- |
| Emp\_no |
| 10102 |
| 10102 |
| 25348 |
| 29346 |