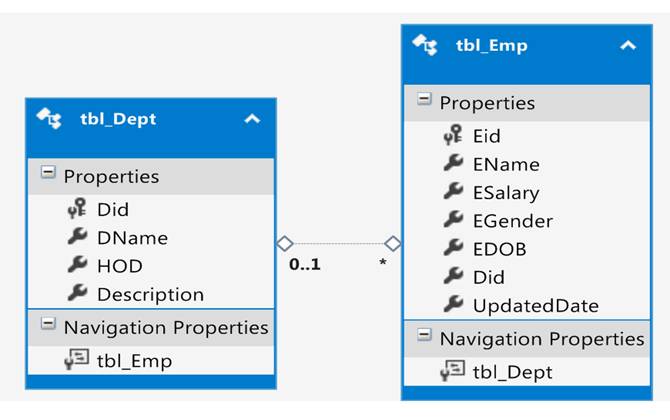
Introduction

Basically, you can write LINQ queries using method syntax (sometimes called as Lambda Expressions) and query syntax. So, here I have tried to gather 36 T-SQL queries along with their equivalent LINQ queries in both method and query syntax.

Scenario

Let us consider a scenario where we have two tables in SQL Server database MyOrg, i.e., tbl\_Dept and tbl\_Emp and say we have generated an entity data model with these two tables as *MyOrg.edmx* as shown below and we have created dev as an object of MyOrgEntities context object, i.e.,



Queries

SQL

Copy Code

MyOrgEntites dev=new MyOrgEntities();

1. **Get all the records from tbl\_Dept**

SQL

Copy Code

Select \* from dbo.tbl\_Dept // T-Sql

var res= dev.tbl\_Dept.ToList(); //lambda

var res=from res in dev.tbl\_Dept select res; //query

1. **Get all the records from tbl\_Dept with column aliasing**

SQL

Copy Code

Select Did as ‘Department Id’, \_

DName as ‘Department Name’ from dbo.tbl\_Dept // T-Sql

var res = dev.tbl\_Dept.Select(x => \_

new { DepartmentId = x.Did, DepartmentName = x.DName }); //lambda

var res=from re in dev.tbl\_Dept \_

select new{Department\_Id=re.Did,Department\_Name=re.DName}; //query

1. **Get top two records from tbl\_Dept**

SQL

Copy Code

Select top(2) \* from tbl\_Dept // T-Sql

var res = dev.tbl\_Dept.Take(2).ToList(); //lambda

var res = from re in dev.tbl\_Dept.Take(2) select re; // query

1. **Get all the records from tbl\_Dept which are sorted by Did ascending**

SQL

Copy Code

select \* from tbl\_Dept order by Did

var res = dev.tbl\_Dept.OrderBy(x => x.Did).ToList();//lambda

var res = from re in dev.tbl\_Dept orderby (re.Did) select re;//query

1. **Get all the records from tbl\_Dept which are sorted by Did descending**

SQL

Copy Code

Select \* from tbl\_Dept order by Did desc

var res = from re in dev.tbl\_Dept orderby (re.Did) descendingselect re; //query

var res = dev.tbl\_Dept.OrderByDescending(x => x.Did).ToList(); //lambda

1. **Get the record from tbl\_Dept with highest Did**

SQL

Copy Code

Select top(1) \* from tbl\_Dept order by Did desc //T-Sql

var res = dev.tbl\_Dept.OrderByDescending(x => x.Did).Take(1); //lambda

var res = (from re in dev.tbl\_Dept orderby \_

(re.Did) descending select re).Take(1).ToList(); //query

1. **Get all the records from tbl\_Dept which are sorted by DName and then by Did ascending**

SQL

Copy Code

Select \* from tbl\_Dept order by DName, Did //T-Sql

var res =dev.tbl\_Dept.OrderBy(X => X.DName).ThenBy(X => X.Did); //lambda

var res = from re in dev.tbl\_Dept orderby (re.DName) orderby (re.Did) select re; //query

1. **Get all the records from tbl\_Dept whose Did is less than or equal to 4**

SQL

Copy Code

Select \* from tbl\_Dept Where Did <= 4

var res = dev.tbl\_Dept.Where(x => x.Did <= 4); //lambda

var res = from re in dev.tbl\_Dept where (re.Did <= 4) select re; //query

1. **Get all the records from tbl\_Dept whose Did is either 4 or 7**

SQL

Copy Code

Select \* from tbl\_Dept Where Did = 4 OR Did = 7

var res = dev.tbl\_Dept.Where(x => x.Did == 4 || x.Did == 7).ToList(); //lambda

var res = from re in dev.tbl\_Dept where (re.Did == 4 || re.Did == 7) select re; //query

1. **Get all the records from tbl\_Dept whose Did is among 1, 5 and 6**

SQL

Copy Code

select \* from tbl\_Dept Where Did IN (1, 5, 6) //T-Sql

var res = from re in dev.tbl\_Dept where (re.Did == 1 || \_

re.Did == 5||re.Did==6) select re; //query

var res = dev.tbl\_Dept.Where(x => x.Did == 1 || x.Did == 5||x.Did==6).ToList(); //lambda

1. **Get all the records from tbl\_Dept whose Did is neither 3 nor 4**

SQL

Copy Code

select \* from tbl\_Dept Where Did <> 3 and Did <> 4

var res = dev.tbl\_Dept.Where(x => x.Did != 3 && x.Did != 4).ToList(); //lambda

var res = from re in dev.tbl\_Dept where (re.Did != 3 && re.Did != 4) select re; //query

1. **Get all the records from tbl\_Dept whose Did is not among 1, 5 and 6**

SQL

Copy Code

select \* from tbl\_Dept Where Did NOT IN (1, 5, 6)

var res = from re in dev.tbl\_Dept \_

where (re.Did != 1 && re.Did != 5&& re.Did!=6) select re; //query

var res = dev.tbl\_Dept.Where\_

(x => x.Did != 1 && x.Did != 5 && x.Did!=6).ToList(); //lambda

1. **Get all the records from tbl\_Dept whose Did is greater than or equal to 2 and less than or equal to 4**

SQL

Copy Code

select \* from tbl\_Dept Where Did >= 2 and Did <= 4

var res = dev.tbl\_Dept.Where(x => x.Did>=2 && x.Did<=4).ToList(); //lambda

var res = from re in dev.tbl\_Dept where (re.Did >= 2 && re.Did <=4) select re; //query

1. **Get all the records from tbl\_Dept whose Did is between 2 and 4**

SQL

Copy Code

select \* from tbl\_Dept Where Did between 2 and 4

var res = from re in dev.tbl\_Dept where (re.Did > 2 && re.Did <4) select re;//query

var res = dev.tbl\_Dept.Where(x => x.Did>2 && x.Did<4).ToList();

1. **Get all the records from tbl\_Dept whose Did is not between 2 and 4**

SQL

Copy Code

select \* from tbl\_Dept Where Did < 2 and Did > 4

var res = dev.tbl\_Dept.Where(x => x.Did<2 || x.Did>4).ToList(); //lambda

var res = from re in dev.tbl\_Dept where (re.Did < 2 || re.Did >4) select re; //query

1. **Get all the records from tbl\_Dept whose Did is not between 2 and 4**

SQL

Copy Code

select \* from tbl\_Dept Where Did not between 2 and 4

var res = dev.tbl\_Dept.Where(x => x.Did <= 2 || x.Did >= 4).ToList(); //lambda

var res = from re in dev.tbl\_Dept where (re.Did <= 2 || re.Did >= 4) select re; //query

1. **Get all the records from tbl\_Dept whose Description is null**

SQL

Copy Code

select \* from tbl\_Dept Where [Description] IS NULL

var res = from re in dev.tbl\_Dept where (re.Description =="") select re; //query

var res = dev.tbl\_Dept.Where(x => x.Description == ""); //lambda

1. **Get all the records from tbl\_Dept whose Description is not null**

SQL

Copy Code

select \* from tbl\_Dept Where [Description] IS NOT NULL

var res = dev.tbl\_Dept.Where(x => x.Description != ""); //lambda

var res = from re in dev.tbl\_Dept where (re.Description !="") select re; //query

1. **Get all the records from tbl\_Emp**

SQL

Copy Code

select \* from tbl\_Emp

var res = from re in dev.tbl\_Emp select re; //query

var res = dev.tbl\_Emp; //lambda

1. **Get sum of salaries of all the employees from tbl\_Emp**

SQL

Copy Code

select SUM(ESalary) AS SumOfTheSalaries from tbl\_Emp

var res = dev.tbl\_Emp.Sum(x => x.ESalary);//lambda

var res = (from re in dev.tbl\_Emp select re.ESalary).Sum(); //query

1. **Get Avg of salaries of all the employees from tbl\_Emp**

SQL

Copy Code

select AVG(ESalary) AS SumOfTheSalaries from tbl\_Emp

var res = dev.tbl\_Emp.Average(x => x.ESalary);//lambda

var res = (from re in dev.tbl\_Emp select re.ESalary).Average();//query

1. **Get the max salary from tbl\_Emp**

SQL

Copy Code

select MAX(ESalary) AS SumOfTheSalaries from tbl\_Emp

var res = dev.tbl\_Emp.Max(x => x.ESalary);//lambda

var res = (from re in dev.tbl\_Emp select re.ESalary).Max();//query

1. **Get the min salary from tbl\_Emp**

SQL

Copy Code

select MIN(ESalary) AS SumOfTheSalaries from tbl\_Emp

var res = dev.tbl\_Emp.Min(x => x.ESalary); //lambda

var res = (from re in dev.tbl\_Emp select re.ESalary).Min(); //query

1. **Get Eid, EName and Esalary from tbl\_Emp**

SQL

Copy Code

select Eid, EName, ESalary from tbl\_Emp

var res= dev.tbl\_Emp.Select(x=>new{x.Eid,x.EName,x.ESalary}); //lambda

var res = from re in dev.tbl\_Emp select new { re.Eid, re.EName, re.ESalary }; //query

1. **Get All Eid, EName and 38% of Esalary as HRA from tbl\_Emp**

SQL

Copy Code

select Eid, EName, ESalary \* 0.38 AS HRA from tbl\_Emp

var res = dev.tbl\_Emp.Select(x => new \_

{ x.Eid, x.EName, HRA = x.ESalary \* 0.38 }).ToList(); //lambda

var res=(from re in dev.tbl\_Emp select new\_

{re.Eid,re.EName,HRA=re.ESalary\*0.38}).ToList(); //query

1. **Get All Eid, EName and gross salary where 38% of Esalary(Basic) is HRA from tbl\_Emp**

SQL

Copy Code

select Eid, EName, ESalary \* 0.38 AS HRA, ESalary + (ESalary \* 0.38) As GS

from tbl\_Emp

var res = dev.tbl\_Emp.Select(x => new { x.Eid, x.EName, \_

HRA = x.ESalary \* 0.38, GS = x.ESalary + (x.ESalary \* 0.38) }).ToList(); //lambda

var res = (from re in dev.tbl\_Emp select new { re.Eid, re.EName, \_

HRA = re.ESalary \* 0.38, GS = re.ESalary + (re.ESalary \* 0.38) }).ToList(); //query

1. **Get all records from tbl\_Emp where ENames ends with “l”**

SQL

Copy Code

select \* from tbl\_Emp where EName like ‘%l’

var res = from re in dev.tbl\_Emp where (re.EName.EndsWith("l")) select re; //query

var res = dev.tbl\_Emp.Where(x => x.EName.EndsWith("l")); //lambda

1. **Get all records from tbl\_Emp where ENames starts with “rah”**

SQL

Copy Code

select \* from tbl\_Emp where EName like ‘rah%’

var res = dev.tbl\_Emp.Where(x => x.EName.StartsWith("rah")); //lambda

var res = from re in dev.tbl\_Emp where (re.EName.StartsWith("rah")) select re; //lambda

1. **Get number of female employees from tbl\_Emp**

SQL

Copy Code

select COUNT(\*) from tbl\_Emp where EGender = ‘F’

var res = dev.tbl\_Emp.Where(x => x.EGender == "F").Count();//lambda

var res=(from re in dev.tbl\_Emp where(re.EGender=="F") select re).Count(); //query

1. **Get number of male and female employees from tbl\_Emp along with gender as one column**

SQL

Copy Code

select COUNT(\*) NoOfEmp, EGender from tbl\_Emp Group By EGender

var res = dev.tbl\_Emp.GroupBy(x => x.EGender).Select\_

(y => new { EGender = y.Key, count = y.Count() }); //lambda

var res = from c in dev.tbl\_Emp group c by c.EGender into g \_

select new { EGender = g.Key, count = g.Count() }; //query

1. **Get number of employees in each department from tbl\_Emp**

SQL

Copy Code

select COUNT(\*) NoOfEmp, Did from tbl\_Emp Group By Did

var res=dev.tbl\_Emp.GroupBy(x=>x.Did).Select(y=> \_

new{Did=y.Key,numberofemp=y.Count()}); //lambda

var res = from re in dev.tbl\_Emp group re by re.Did into k \_

select new { Did = k.Key, numberofemp = k.Count() }; //query

1. **Get sum of salaries for the employees as per department from tbl\_Emp**

SQL

Copy Code

select SUM(ESalary) SumOfSal, Did from tbl\_Emp Group By Did

var res = dev.tbl\_Emp.GroupBy(x => x.Did).Select(y => \_

new { Did = y.Key, sumofsalary = y.Sum(z => z.ESalary) }); //lambda

var res = from re in dev.tbl\_Emp group re by re.Did into k \_

select new { Did = k.Key, sumofsalary = k.Sum(g => g.ESalary) }; //query

1. **Get sum of salaries for the employees as per gender and department from tbl\_Emp**

SQL

Copy Code

select SUM(ESalary) SumOfSal, EGender from tbl\_Emp Group By EGender

var res = dev.tbl\_Emp.GroupBy(x => x.EGender).Select(y => \_

new { EGender = y.Key, Sumofsalary = y.Sum(z => z.ESalary) }); //lambda

var res = from re in dev.tbl\_Emp group re by re.EGender into k \_

select new { EGender = k.Key, sumofsalary = k.Sum(g => g.ESalary) }; //query

1. **Get sum of salaries for the employees as per gender and department from tbl\_Emp whose sum of salaries is greater and equal to 20000**

SQL

Copy Code

select SUM(ESalary) SumOfSal, EGender, \_

Did from tbl\_Emp Group By Did,EGender Having Sum(ESalary) >= 20000

var res = dev.tbl\_Emp.GroupBy(x => new { x.Did, x.EGender }).Select(y => \_

new { EGender = y.Key.EGender,Did = y.Key.Did, Sumofsalary = y.Sum(z => \_

z.ESalary) }).Where(s => s.Sumofsalary > 20000); //lambda

var res = (from re in dev.tbl\_Emp group re bynew { re.Did, re.EGender } \_

into k selectnew { EGender = k.Key.EGender, Did = k.Key.Did, \_

sumofsalary = k.Sum(z => z.ESalary) }).Where(z => z.sumofsalary > 20000); //query

1. **Get all Eid, EName, DName from tbl\_Emp and tbl\_Dept (using joins)**

SQL

Copy Code

select E.Eid,E.EName,D.DName from tbl\_Emp E join tbl\_Dept D on E.Did=D.Did

var res = from dep in dev.tbl\_Dept join emp in dev.tbl\_Emp on dep.Did \_

equals emp.Eid selectnew { emp.Eid, emp.EName, dep.DName }; //query

var res=dev.tbl\_Dept.Join(dev.tbl\_Emp,x=>x.Did,y=>y.Eid,(x,y)=> \_

new{y.Eid,y.EName,x.DName}).ToList(); //lambda