

Introducing the Power of LINQ

LANGUAGE INTEGRATED QUERY



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Lambda Expressions



Lambda Expression

```
public int Multiply(  
int x, int y){  
    return x * y;  
}
```

$(x, y) \Rightarrow (x * y);$



Demo



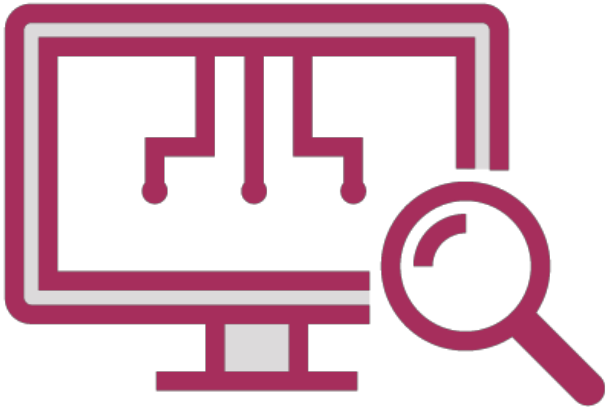
Lambda Expressions



LINQ – Language Integrated Query



LINQ Queries



Query data from...

- Collections
- Relational data
- XML documents

Demo



LINQ Query



LINQ Query Operators



Query Operators

```
var methods = from method in typeof(int).GetMethods()  
              orderby method.Name  
              group method by method.Name into groups  
              select new { MethodName =  
                groups.Key, MethodOverloads =  
                groups.Count()};
```



Demo



Query Operators



Demo



Deferred Execution



Key Operators

Any – Returns a Boolean. Test if collection is empty or contains the value.

Take – Allows you to choose how many values to retrieve.

Distinct – Retrieve only one of each value.

Zip – Threads two lists together.



Demo



Key Operators



Module Summary



Lambda expressions

LINQ Queries

Key LINQ Operators

- Any
- Take
- Distinct
- Zip