

LINQ Day1 Lab

Using Console Application:

1- List<int> numbers = new List<int> { 1, 2, 3, 4, 5, 6, 7, 8, 9, 10 };

Example 1: Filtering even numbers

Example 2: Filtering numbers greater than 5

Example 3: Filtering numbers less than or equal to 5

Example 4: Filtering odd numbers

Example 5: Filtering numbers between 3 and 7

2- Declare a class **Subject** that contains the following properties (**Code, Name**) and declare **Student** class that contains the following properties (**ID, FirstName, LastName , Subject []**), then define List of students As follow

```
List<Student> students = new List<Student>()
{
    new Student()
    {
        ID=1,
        FirstName="Sara",
        LastName="Mohammed",
        Subjects=new Subject[]{
            new Subject(){ Code=22,Name="EF"},
            new Subject(){ Code=33,Name="UML"}}
    },
    new Student()
    {
        ID=2,
        FirstName="Mona",
        LastName="Gala",
        Subjects=new Subject []
        {
            new Subject(){ Code=22,Name="EF"},
            new Subject (){ Code=34,Name="XML"},
            new Subject (){ Code=25, Name="JS"}
        }
    },
}
```

```

new Student()
{
    ID=3,
    FirstName="Yara",
    LastName="Yousf",
    Subjects=new Subject []
    {
        new Subject (){ Code=22,Name="EF"},
        new Subject (){ Code=25,Name="JS"}
    }
},

new Student()
{
    ID=4,
    FirstName="Ali",
    LastName="Ali",
    Subjects=new Subject []
    {
        new Subject ()
        {
            Code=33,Name="UML"}
    }
},

new Student()
{
    ID=5,
    FirstName="Ali",
    LastName="Ahmed",
    Subjects=new Subject[] {
        new Subject(){ Code=22,Name="EF"},
        new Subject(){ Code=33,Name="UML"}}
    },
};

```

Example 1: Students with the first name "Ali"

Example 2: Students enrolled in the subject with code 22

Example 3: Students with the last name "Mohammed"

Example 4: Students with more than one subject