

# Application Development with .NET (32998, 31927)

## Tutorial -10 Questions

Please download the sample code from Canvas and follow the instructions

### **Program 1:**

Write a program to create a *MathOperation* class with static methods for basic mathematical operations on two integers:

1. Addition
2. Subtraction
3. Multiplication
4. Division
5. Modulus

Use Multi-cast delegate to execute all the operations and remove some operations on two integer numbers. Execute the delegate in the following manner:

1. Register all the methods with the delegate using "+=".
2. Un-Register the Subtraction and modulus operation using "-="

### **Example Test case:**

Expected Output:

Executing the Multicast Delegate:

```
5 + 4 = 9
5 - 4 = 1
5 X 4 = 20
5 / 4 = 1
5 % 4 = 1
```

Executing the Multicast Delegate after removing some operations:

```
5 + 4 = 9
5 X 4 = 20
5 / 4 = 1
```

### **Program 2:**

Write a program to count the number of files with similar extension and group them using LINQ. Use lambda expressions to form the query.

### **Example Test case:**

List of files:

```
{ "aaa.txt", "bbb.TXT", "xyzabc.pdf", "hello.PDF", "abc.xml", "ccc.txt", "zzz.txt" }
```

Expected Output:

```
4 File(s) with txt Extension
2 File(s) with pdf Extension
1 File(s) with xml Extension
```