

.NET Lab Exam Execution:

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1)

```
using System;

0 references
class ExceptionDemo
{
    0 references
    static void Main()
    {
        try
        {
            Console.WriteLine("Enter a number: ");
            int num = Convert.ToInt32(Console.ReadLine());
            Console.WriteLine("Result: " + (10 / num));
        }
        catch (DivideByZeroException)
        {
            Console.WriteLine("Error: Cannot divide by zero.");
        }
        catch (FormatException)
        {
            Console.WriteLine("Error: Invalid input. Please enter a numeric value.");
        }
        finally
        {
            Console.WriteLine("Execution of try-catch-finally is complete.");
        }
    }
}
```

OUTPUT:

```
C:\WINDOWS\system32\cmd. X + v

Enter a number:
5
Result: 2
Execution of try-catch-finally is complete.
Press any key to continue . . . |
```

2)

The screenshot shows the Visual Studio IDE with a C# file named Program.cs. The code defines a class SimpleCalculator with a static Main method. The Main method prompts the user for a first number, an operator, and a second number. It uses Console.WriteLine for prompts and Console.ReadLine for input. The input is converted to double using Convert.ToDouble. The code is currently at the line where 'result' and 'valid' are initialized to 0 and true respectively.

```
using System;

class SimpleCalculator
{
    static void Main()
    {
        Console.WriteLine("Simple Calculator");
        Console.WriteLine("Enter first number:");
        double num1 = Convert.ToDouble(Console.ReadLine());

        Console.WriteLine("Enter an operator (+, -, *, /):");
        char op = Console.ReadLine()[0];

        Console.WriteLine("Enter second number:");
        double num2 = Convert.ToDouble(Console.ReadLine());

        double result = 0;
        bool valid = true;

        switch (op)
        {
            case '+':
                result = num1 + num2;
                break;
            case '-':
                result = num1 - num2;
                break;
            case '*':
                result = num1 * num2;
                break;
            case '/':
                if (num2 != 0)
                {
                    result = num1 / num2;
                }
                else
                {
                    Console.WriteLine("Error: Cannot divide by zero.");
                    valid = false;
                }
                break;
            default:
                Console.WriteLine("Error: Invalid operator.");
                valid = false;
                break;
        }

        if (valid)
        {
            Console.WriteLine("Result: " + result);
        }
    }
}
```

This block continues the code from the previous block, showing the division logic in the switch statement and the final output to the console. The code handles the division by zero error and prints the result if the operation was valid.

```
        break;
    case '*':
        result = num1 * num2;
        break;
    case '/':
        if (num2 != 0)
        {
            result = num1 / num2;
        }
        else
        {
            Console.WriteLine("Error: Cannot divide by zero.");
            valid = false;
        }
        break;
    default:
        Console.WriteLine("Error: Invalid operator.");
        valid = false;
        break;
    }

    if (valid)
    {
        Console.WriteLine("Result: " + result);
    }
}
```

OUTPUT:

```
C:\WINDOWS\system32\cmd. x + v
Simple Calculator
Enter first number:
5
Enter an operator (+, -, *, /):
+
Enter second number:
5
Result: 10
Press any key to continue . . . |
```