

FACTORY METHOD PATTERN

```
using System;

namespace VSCodeCSharpExample
{
    class Program
    {
        static void Main(string[] args)
        {
            Console.WriteLine("Welcome to C# in VS Code!");
            Console.WriteLine("-----");
            Console.Write("Enter your name: ");
            string name = Console.ReadLine();
            GreetUser(name);
            PerformCalculations();
            Console.WriteLine("\nPress any key to exit...");
            Console.ReadKey();
        }

        static void GreetUser(string name)
        {
            Console.WriteLine($"Hello, {name}! Current date/time: {DateTime.Now}");
        }

        static void PerformCalculations()
        {
            Console.WriteLine("\nLet's do some calculations!");

            Console.Write("Enter first number: ");
            double num1 = Convert.ToDouble(Console.ReadLine());

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

```

Console.WriteLine($"\\nResults:");

Console.WriteLine($"{num1} + {num2} = {num1 + num2}");

Console.WriteLine($"{num1} - {num2} = {num1 - num2}");

Console.WriteLine($"{num1} * {num2} = {num1 * num2}");


if (num2 != 0)
{
    Console.WriteLine($"{num1} / {num2} = {num1 / num2}");
}
else
{
    Console.WriteLine("Cannot divide by zero!");
}
}
}
}

```

