CSharp -2

Visual Studio and C#

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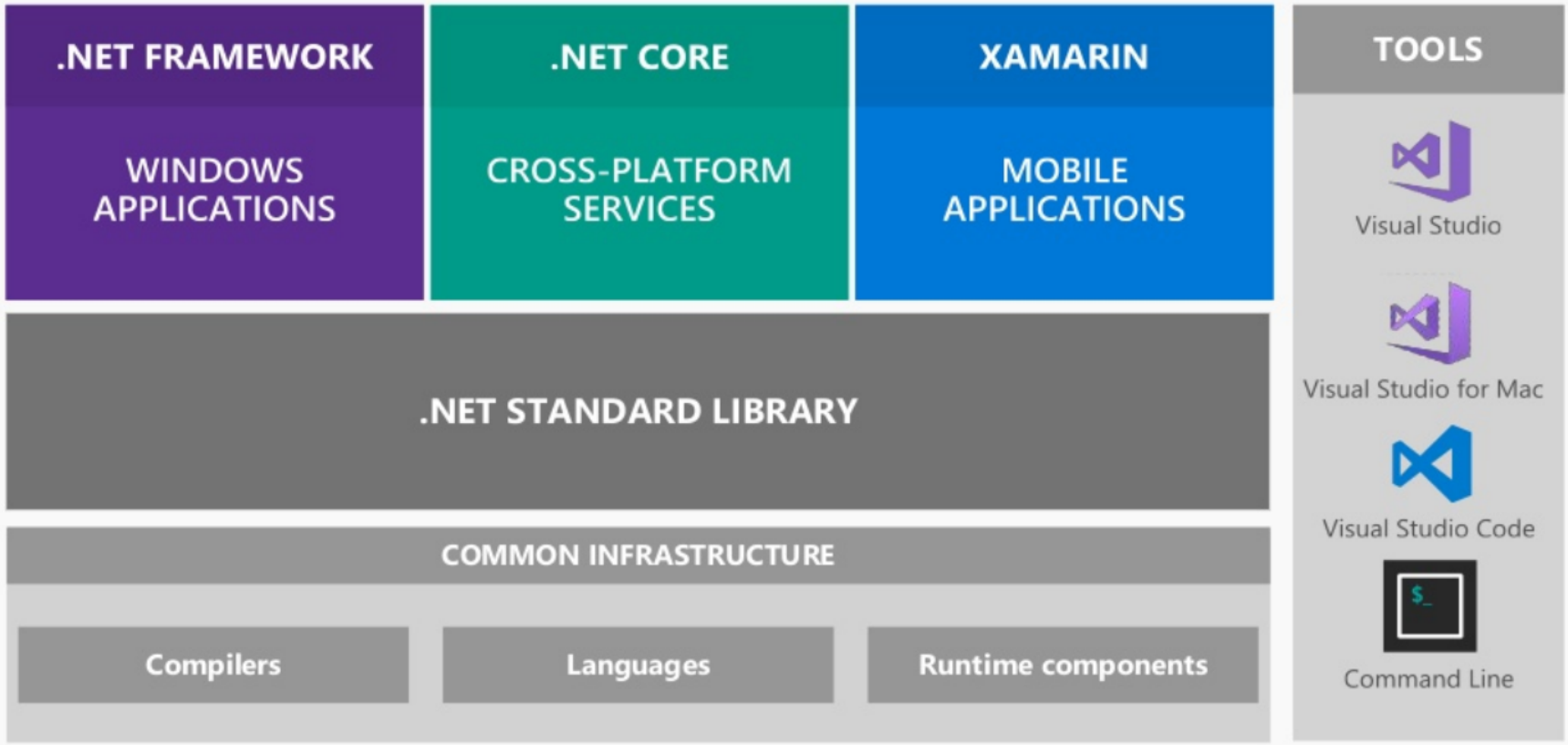
Office 2007 键盘快捷方式

Outline

- Visual Studio
- C#
- Lab
- Built in types
- Int and String
- Lab

.NET – A unified platform

Clip slide

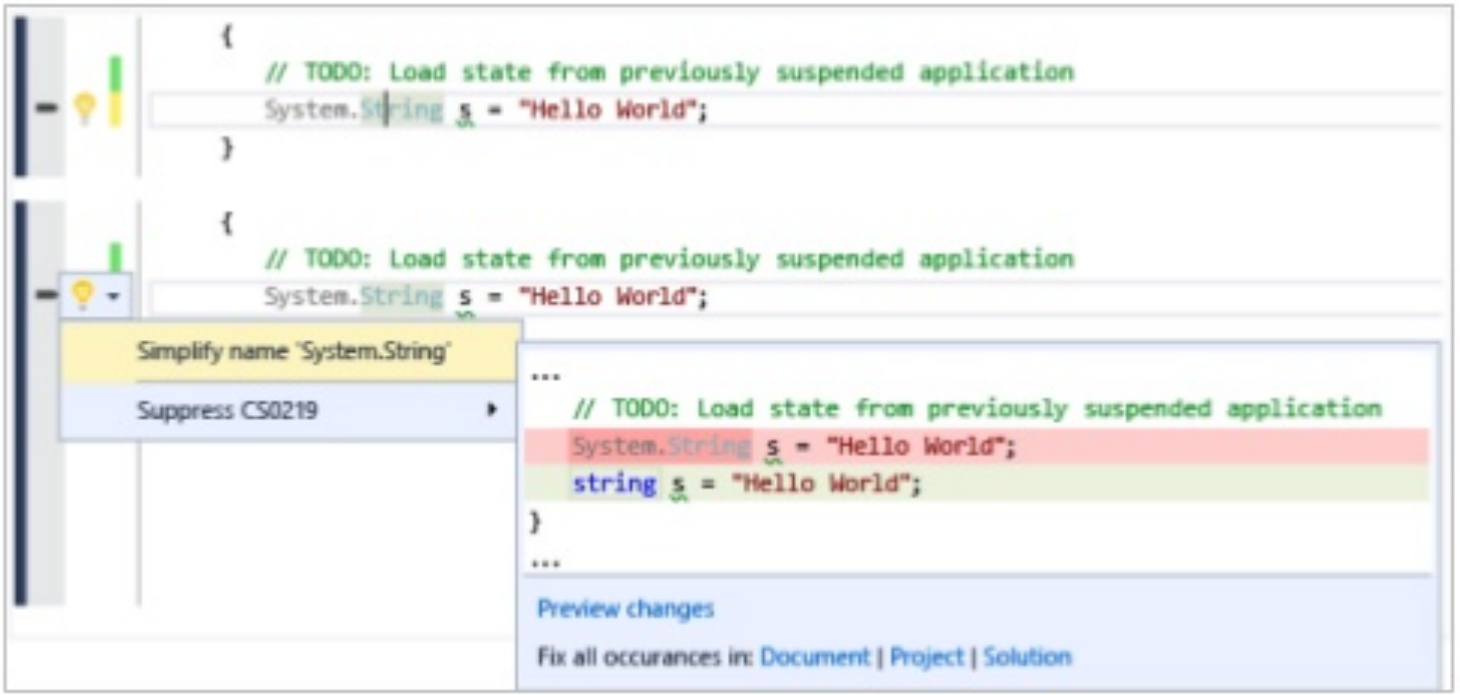


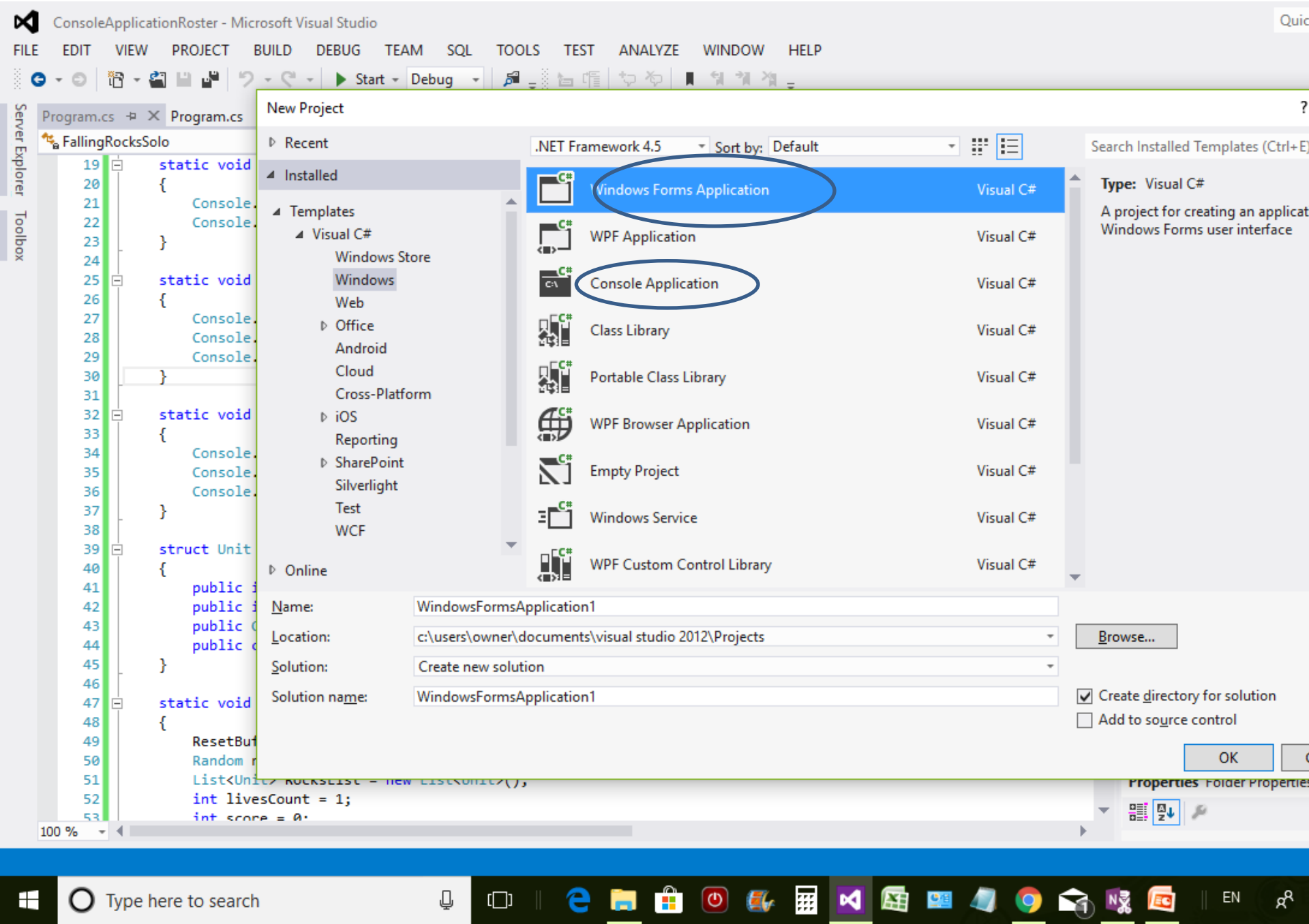
2.1 Visual Studio

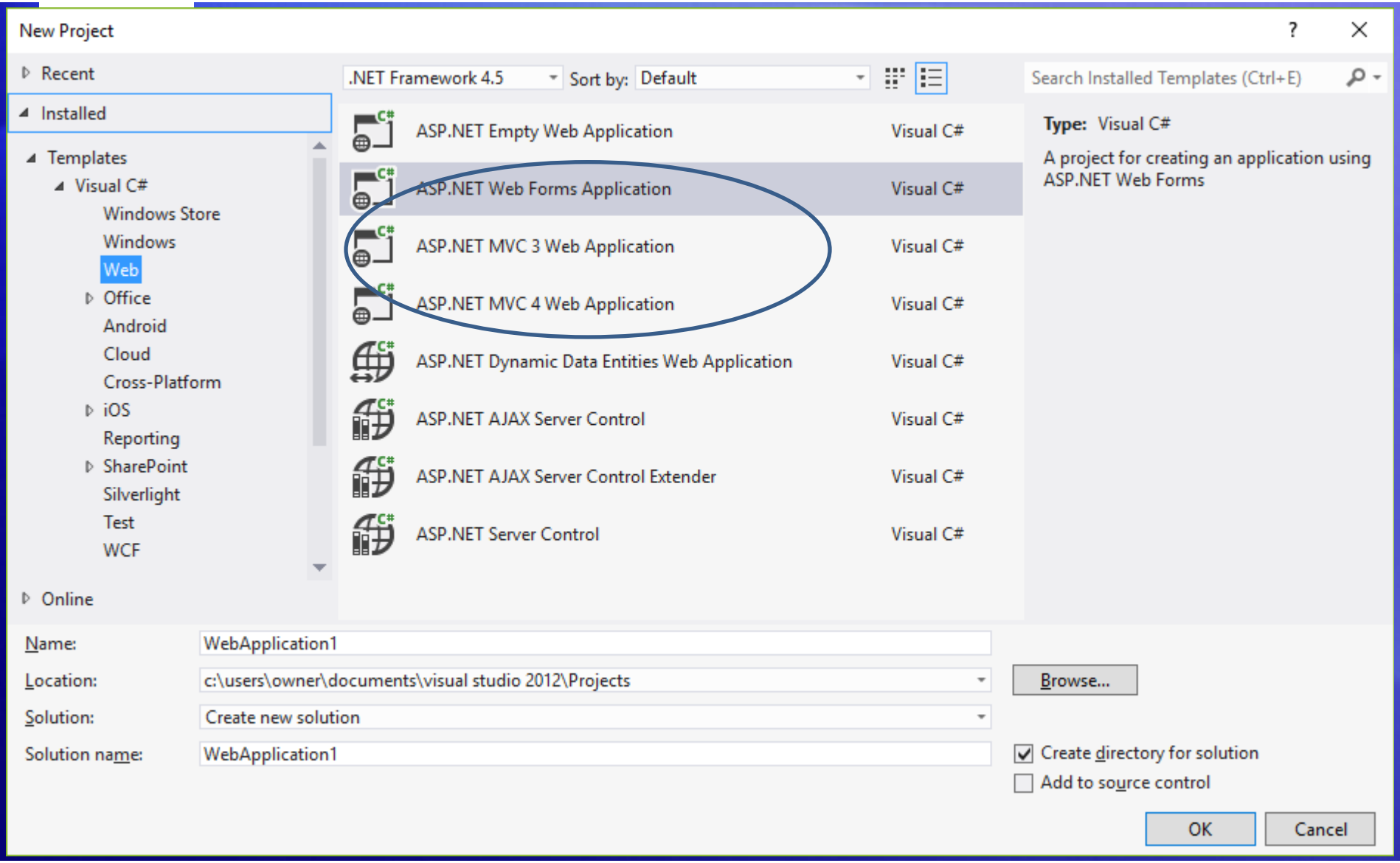
Live code analysis (light bulbs)

WinWire Technologies

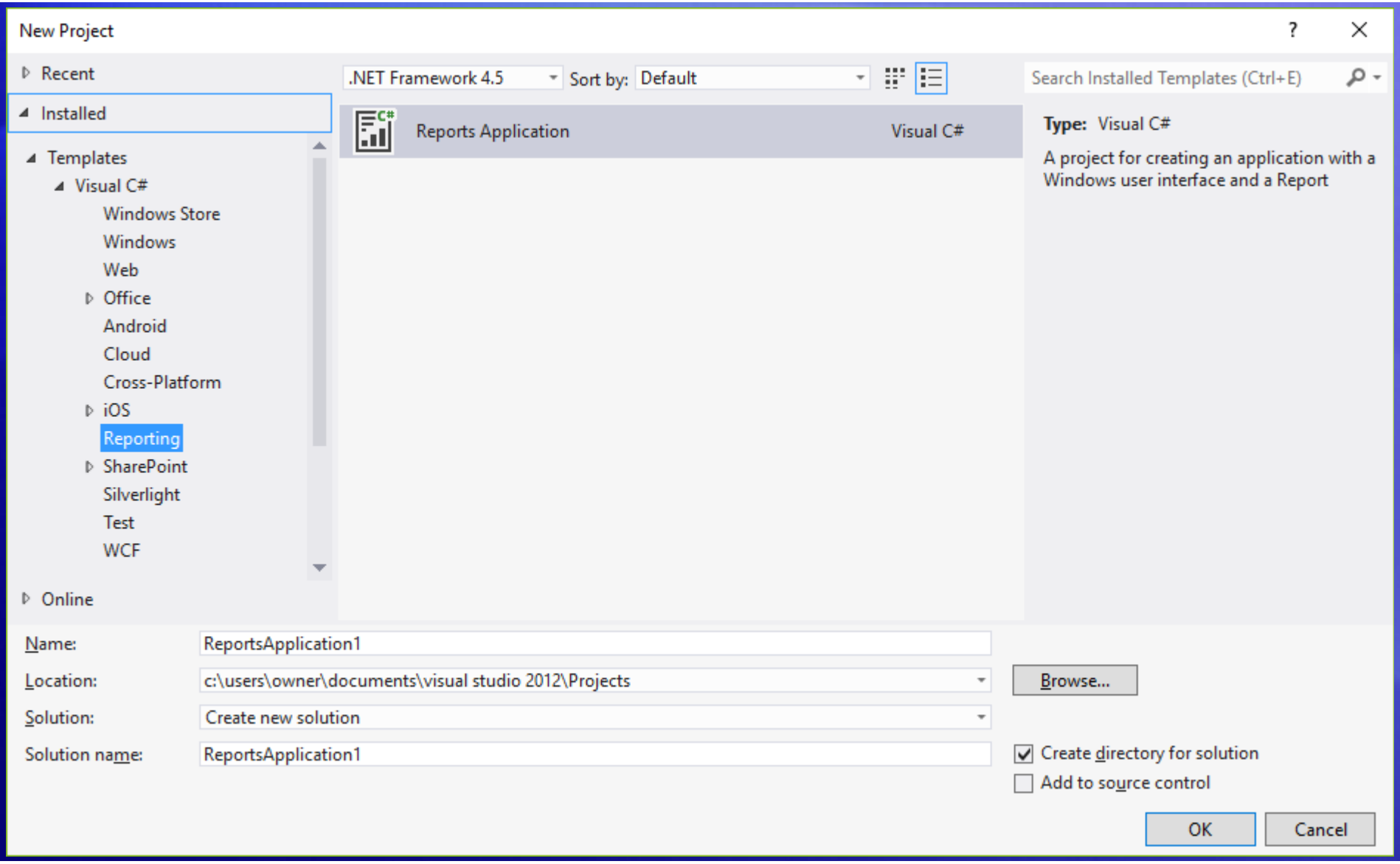
The new Roslyn compiler for C# and Visual Basic not only provides faster compile times—it also enables completely new scenarios such as live code analysis, which provide rich and customizable feedback and suggestions directly inside the code editor as you type

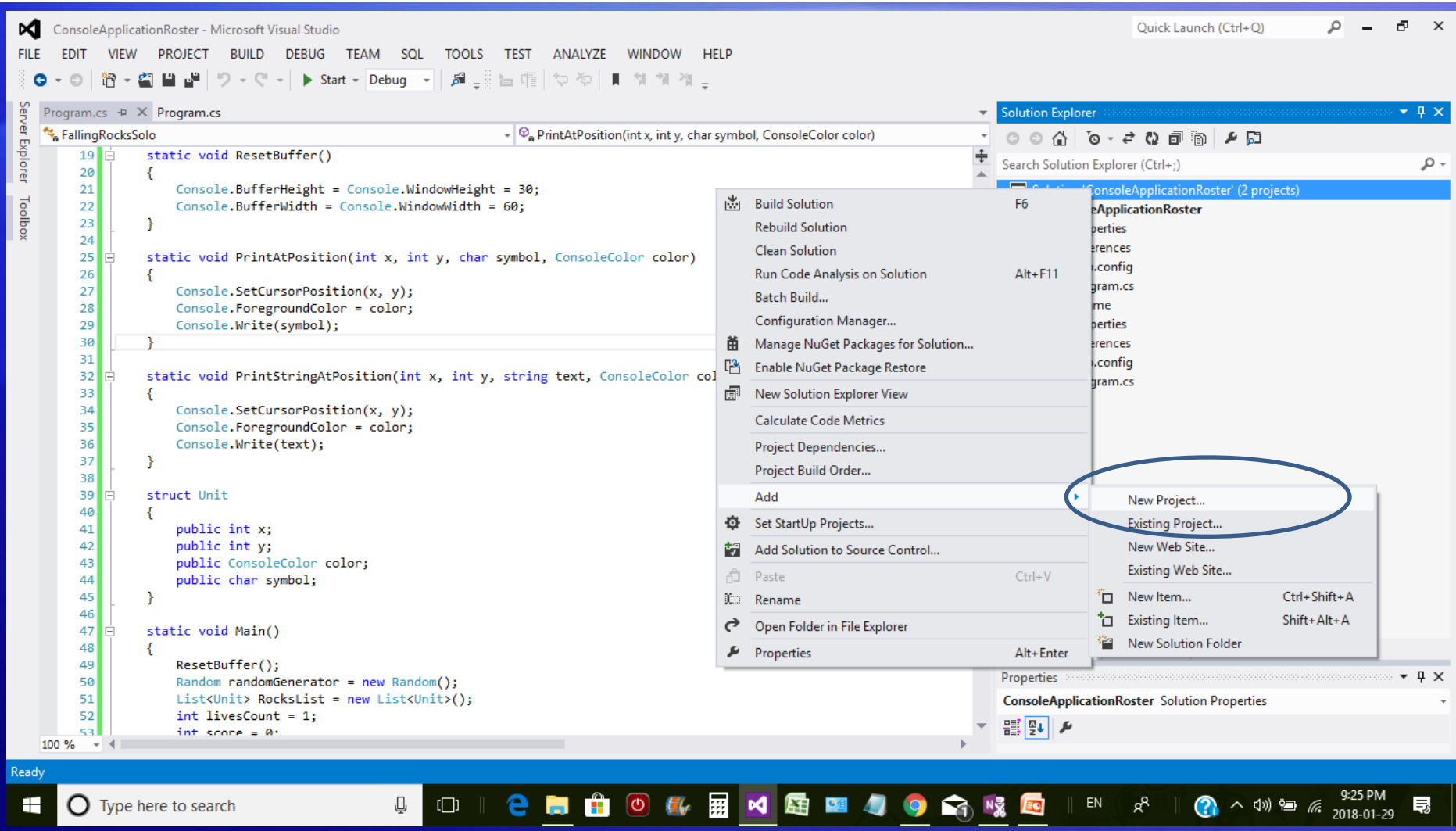


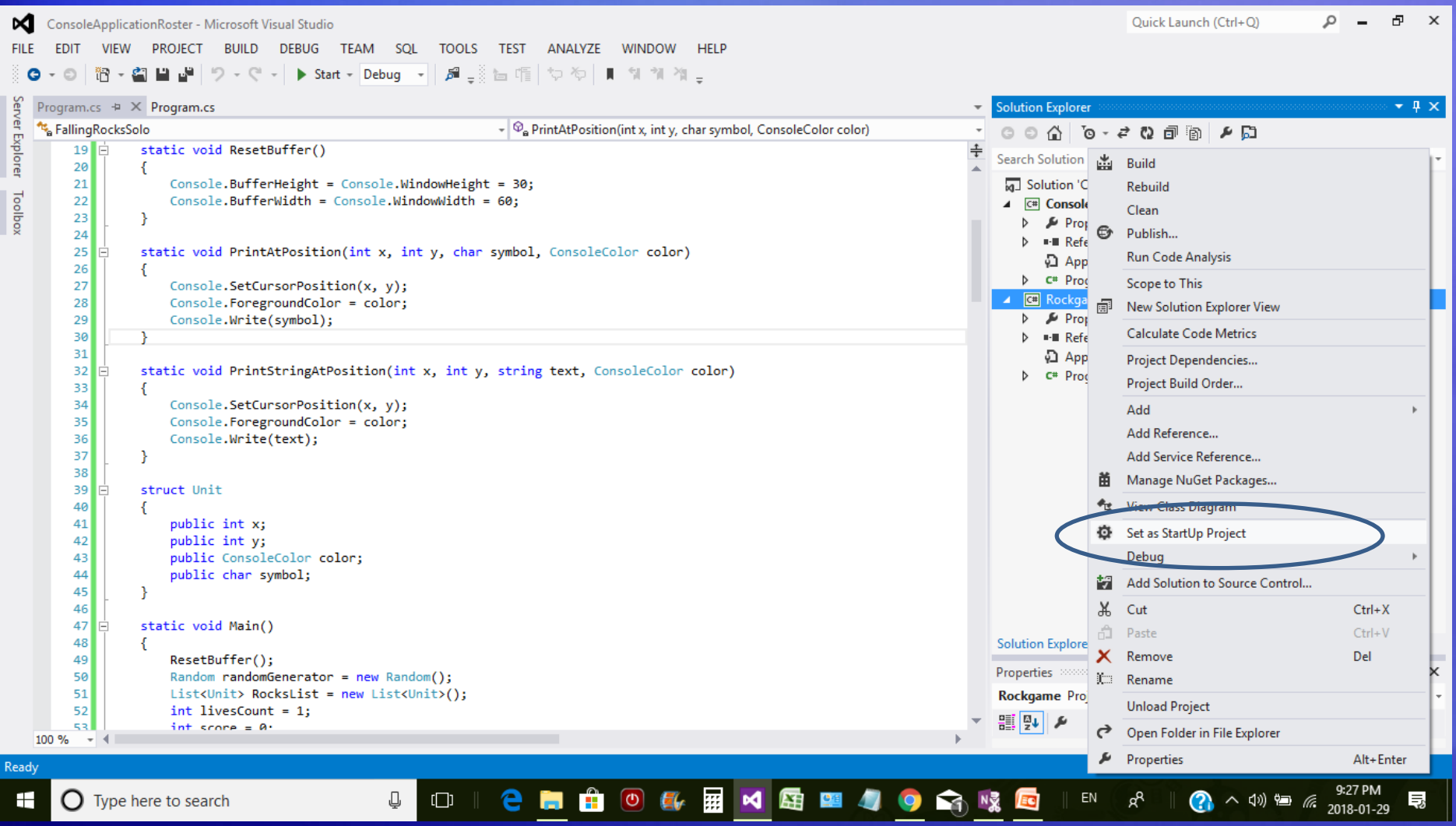

ConsoleApplicationRoster - Microsoft Visual Studio
FILE EDIT VIEW PROJECT BUILD DEBUG TEAM SQL TOOLS TEST ANALYZE WINDOW HELP
Start Debug
Program.cs Program.cs
FallingRocksSolo
New Project
Recent
Installed
Templates
Visual C#
Windows Store
Windows
Web
Office
Android
Cloud
Cross-Platform
iOS
Reporting
SharePoint
Silverlight
Test
WCF
Online
.NET Framework 4.5
Sort by: Default
Windows Forms Application Visual C#
WPF Application Visual C#
Console Application Visual C#
Class Library Visual C#
Portable Class Library Visual C#
WPF Browser Application Visual C#
Empty Project Visual C#
Windows Service Visual C#
WPF Custom Control Library Visual C#
Search Installed Templates (Ctrl+E)
Type: Visual C#
A project for creating an applicat
Windows Forms user interface
Name: WindowsFormsApplication1
Location: c:\users\owner\documents\visual studio 2012\Projects
Solution: Create new solution
Solution name: WindowsFormsApplication1
Browse...
Create directory for solution
Add to source control
OK
Properties Folder Properties
Server Explorer
Toolbox
100 %
Type here to search
EN



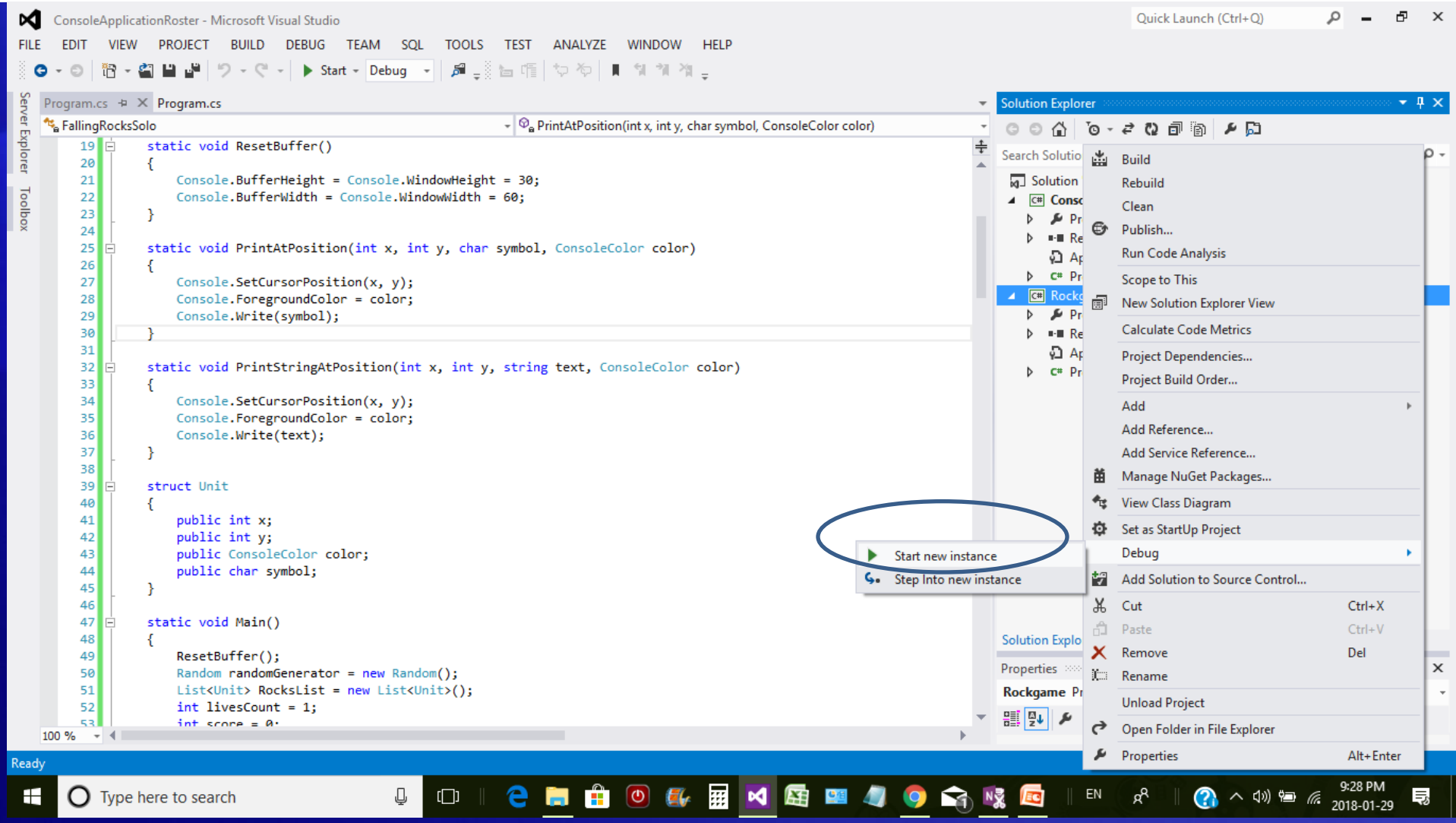
Office 2007 键盘快捷方式


New Project
Recent
Installed
Templates
Visual C#
Windows Store
Windows
Web
Office
Android
Cloud
Cross-Platform
iOS
Reporting
SharePoint
Silverlight
Test
WCF
Online
.NET Framework 4.5
Sort by:
Default
Search Installed Templates (Ctrl+E)
Reports Application
Visual C#
Type: Visual C#
A project for creating an application with a Windows user interface and a Report
Name:
ReportsApplication1
Location:
c:\users\owner\documents\visual studio 2012\Projects
Browse...
Solution:
Create new solution
Solution name:
ReportsApplication1
Create directory for solution
Add to source control
OK
Cancel


ConsoleApplicationRoster - Microsoft Visual Studio
Quick Launch (Ctrl+Q)
FILE EDIT VIEW PROJECT BUILD DEBUG TEAM SQL TOOLS TEST ANALYZE WINDOW HELP
Start Debug
Program.cs
Program.cs
FallingRocksSolo
PrintAtPosition(int x, int y, char symbol, ConsoleColor color)
static void ResetBuffer()
{
Console.BufferHeight = Console.WindowHeight = 30;
Console.BufferWidth = Console.WindowWidth = 60;
}
static void PrintAtPosition(int x, int y, char symbol, ConsoleColor color)
{
Console.SetCursorPosition(x, y);
Console.ForegroundColor = color;
Console.Write(symbol);
}
static void PrintStringAtPosition(int x, int y, string text, ConsoleColor col
{
Console.SetCursorPosition(x, y);
Console.ForegroundColor = color;
Console.Write(text);
}
struct Unit
{
public int x;
public int y;
public ConsoleColor color;
public char symbol;
}
static void Main()
{
ResetBuffer();
Random randomGenerator = new Random();
List<Unit> RocksList = new List<Unit>();
int livesCount = 1;
int score = 0;
100 %
Solution Explorer
Search Solution Explorer (Ctrl+;)
ConsoleApplicationRoster' (2 projects)
eApplicationRoster
Build Solution F6
Rebuild Solution
Clean Solution
Run Code Analysis on Solution Alt+F11
Batch Build...
Configuration Manager...
Manage NuGet Packages for Solution...
Enable NuGet Package Restore
New Solution Explorer View
Calculate Code Metrics
Project Dependencies...
Project Build Order...
Add
Set StartUp Projects...
Add Solution to Source Control...
Paste Ctrl+V
Rename
Open Folder in File Explorer
Properties Alt+Enter
New Project...
Existing Project...
New Web Site...
Existing Web Site...
New Item... Ctrl+Shift+A
Existing Item... Shift+Alt+A
New Solution Folder
Properties
ConsoleApplicationRoster Solution Properties
Ready
Type here to search
EN
9:25 PM
2018-01-29



Office 2007 键盘快捷方式



Office 2007 键盘快捷方式

Lab 1

1. **Create a console/windows form project, print greetings. Run it.**
2. **Create the 2nd project in the same VS solution, show current time. Run it.**

   Can you show January 30, 2018 *? (google it)**

```
Console.WriteLine("Hello.");
Console.Read();

Console.WriteLine("This was printed
at " + DateTime.Now);
Console.Read();
```

Solution/Project Properties

Multiple start up projects.(eg. Web API + client app)

Application properties:

- **Check when the project cannot be compiled**
- **Assemblies**

Build and debug:

- **Configuration manager**
- **Command arguments**
- **Output window**

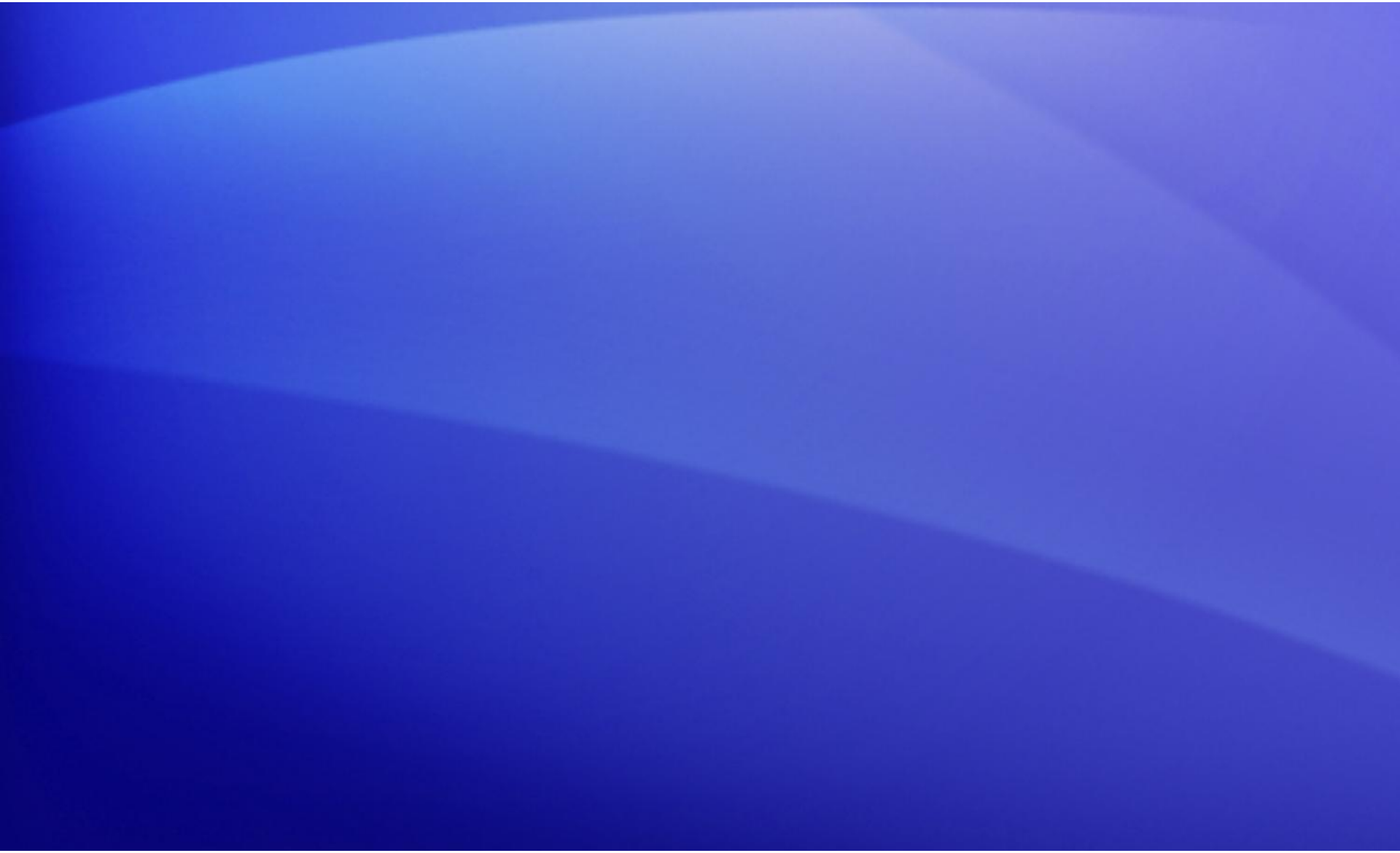
Settings and Config files

Debug

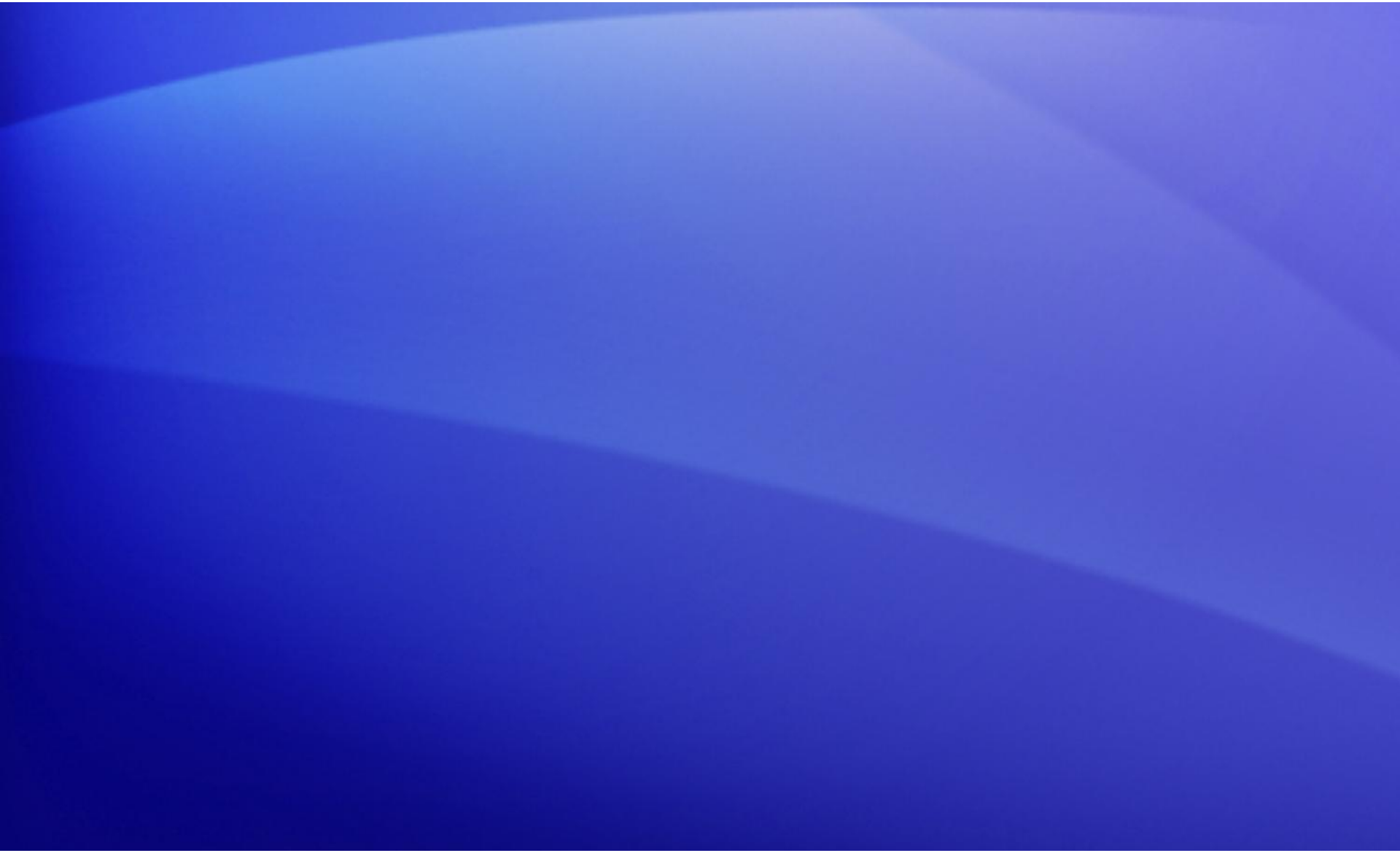
Add variables in your sample codes

```
var name = "Dilpreet";
var lastName = "Kaur";
var fullname = name + " " + lastName;
Console.WriteLine(fullname);
```

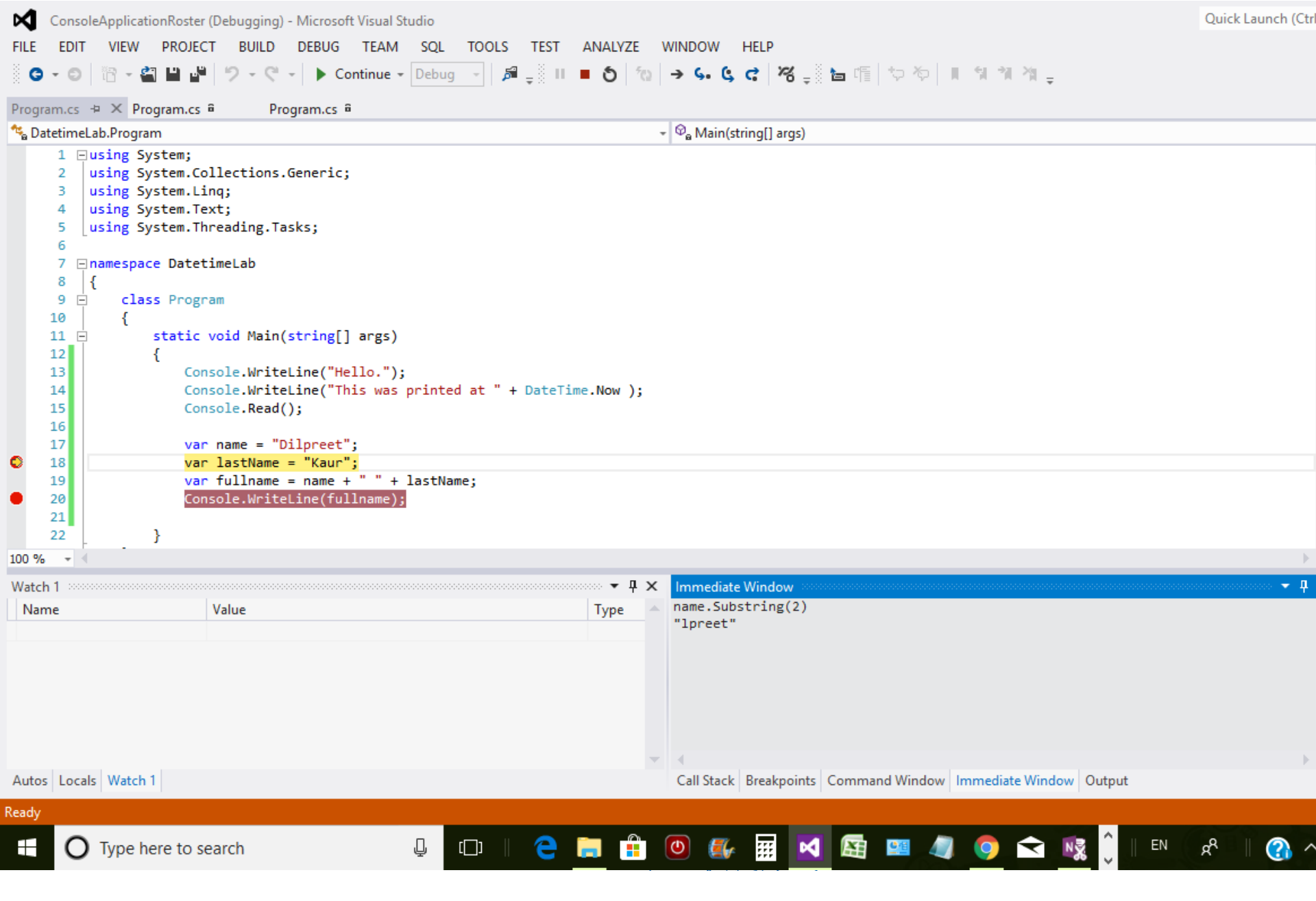
Break Points



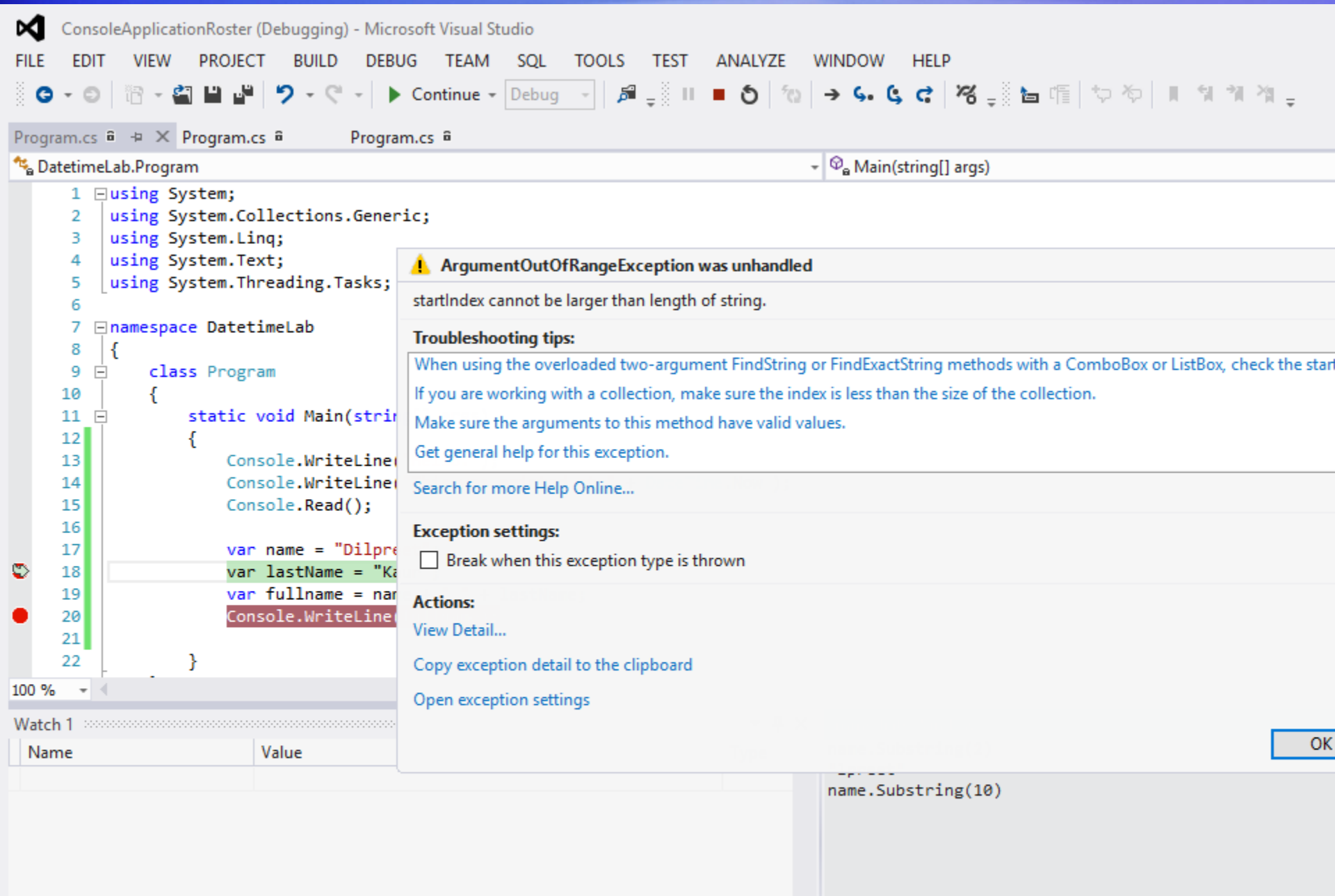
Watch, local, Auto



Immediate window



Immediate to verify/test



Question

Requirement:

Show only the first 50 characters of any alert message, and a “…”

(to make the alert window small.)

Daily operations

Ctrl+f: current document/project, solution

Tab (short cut)

Close all

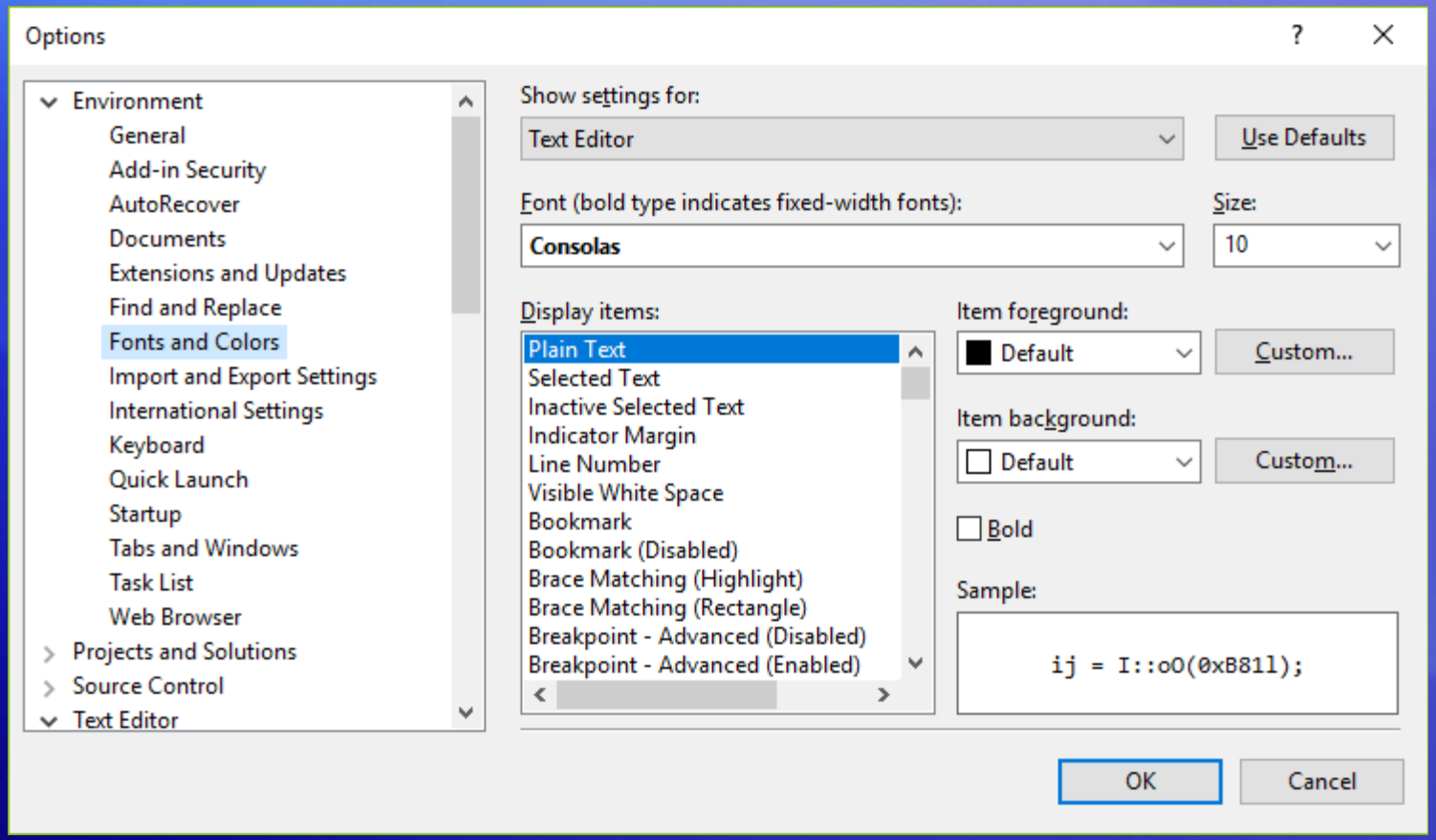
Comment Out/ uncomment

Show all files /include new files

References

Nuget

Tools-Options: (Next page)


Options
Environment
General
Add-in Security
AutoRecover
Documents
Extensions and Updates
Find and Replace
Fonts and Colors
Import and Export Settings
International Settings
Keyboard
Quick Launch
Startup
Tabs and Windows
Task List
Web Browser
Projects and Solutions
Source Control
Text Editor
Show settings for:
Text Editor
Use Defaults
Font (bold type indicates fixed-width fonts):
Consolas
Size:
10
Display items:
Plain Text
Selected Text
Inactive Selected Text
Indicator Margin
Line Number
Visible White Space
Bookmark
Bookmark (Disabled)
Brace Matching (Highlight)
Brace Matching (Rectangle)
Breakpoint - Advanced (Disabled)
Breakpoint - Advanced (Enabled)
Item foreground:
Default
Custom...
Item background:
Default
Custom...
Bold
Sample:
ij = I::oO(0xB81l);
OK
Cancel

2.2 Starting C#

```
using System;

namespace HelloWorldApplication {
   class HelloWorld {
      static void Main(string[] args) {
         /* my first program in C# */
         Console.WriteLine("Hello World");
         Console.ReadKey();
      }


   }
}
```

Basic rules

- C# is case sensitive.
- All statements and expression must end with a semicolon (;)
- {} popsitions (different with JavaScript)
- Avoid keywords
- Intent styles

- C# Coding Conventions (Next page)
  - Naming Conventions
  - Layout Conventions
  - Comments

Naming Conventions

1. Variable name

2. Class name

3. Method name

(Read sample codes and learn)

Layout Conventions

- smart indenting, four-character indents, tabs saved as spaces
- Write only one statement per line.
- Write only one declaration per line.
- If continuation lines are not indented automatically, indent them one tab stop (four spaces).

Commenting Conventions

- Place the comment on a separate line, not at the end of a line of code.

•Begin comment text with an uppercase letter.

•End comment text with a period.

- Insert one space between the comment delimiter (//) and the comment text

•Do not create formatted blocks of asterisks around comments.

Comments lab

- Single line
- Section comments
- XML comments
- Codes region

Console: read & write

Console app
& Winform App (Show how to check the output)

Write and Writeline
Read: one character
ReadKey: to idenfify
ReadKey(Boolean)
ReadLine:

Read more details when you need them.

Built In Types

https://www.tutorialspoint.com/csharp/csharp_data_types.htm

https://msdn.microsoft.com/en-us/library/ya5y69ds(v=vs.120).aspx

Assignment 2 - Int and String Lab

Create a mulitple-project solution:

Objects:1st console provides options, user type one number.

Run the second application with the selected result.

(Which city would like to live? 1. Toronto 2. Barri 3. New York

Or a restaurant menu....

Assignment 2 - Int and String Lab

Requirements:

This would be compeleted in 2 steps. The first step is required to be finished before the coming Wednesday.The 2nd step is required before 14 Feb. Initial codes would be provided.Please read the code and use them.

Step 1: Create a console applicaton. and a Windows Form Application in the same solution. Paste the codes and change in the console app to start the 2nd app. (No parameter is required for the 2nd app, only if start it automatically).

Assignment 2 - Int and String Lab

Requirements:

Step 2: Insert 3 Picture box controls in the Windows Forms Application. Paste and edit the codes to make it be ready to show the selected picture. Test it.

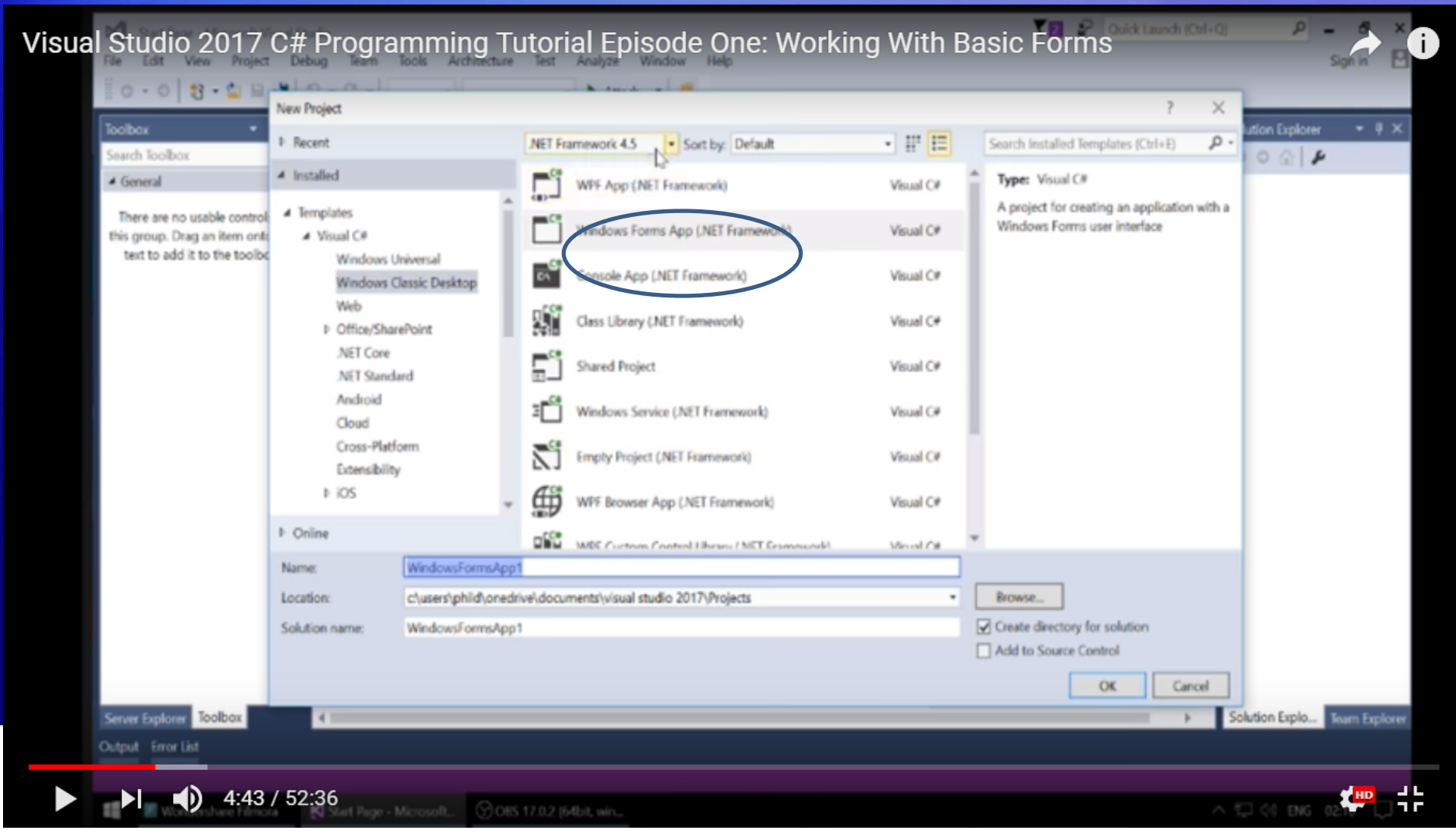
Change the codes in the console app to start the windows form app and show different pictures.

(Will show the codes for step 2 in next class.)

Instructions for step 1 is following

Assignment 2 - Int and String Lab

Instructions for step 1:



Assignment 2 - Int and String Lab

Instructions for step 1:

The last screenshot shows where you can select the console application and Windows Froms application. Here is a 5-minutes vedio for your reference: https://www.youtube.com/watch?v=oIhNea3_vPw (Not same version, but you should be able to start.)