

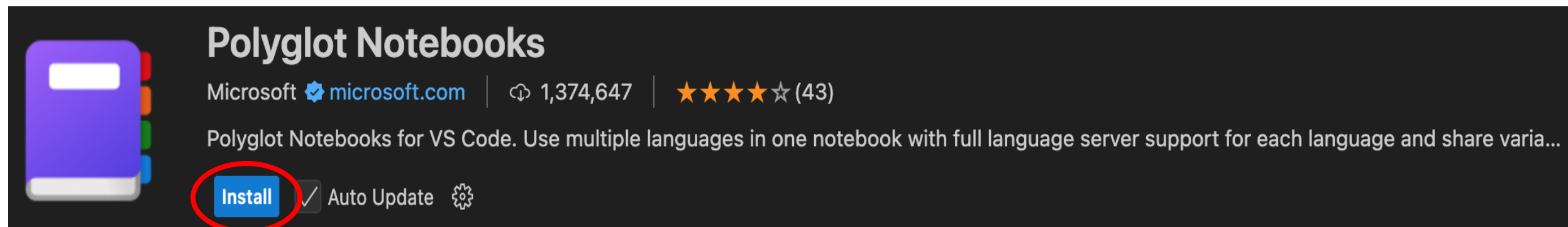
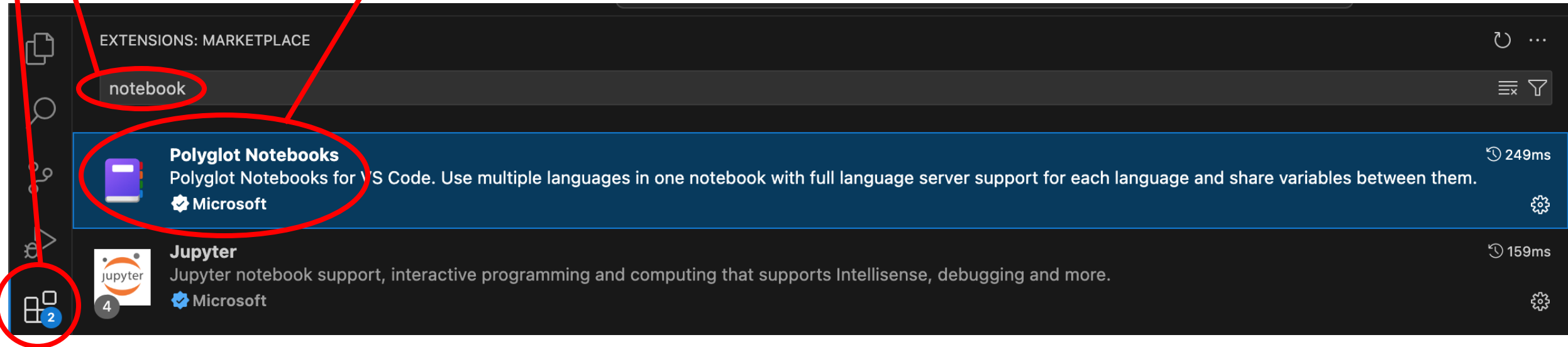
Installing and Using Polyglot Notebooks

Polyglot Notebooks are interactive notebooks in Visual Studio Code that allow you to write and execute C#.



How to Install Polyglot Notebooks

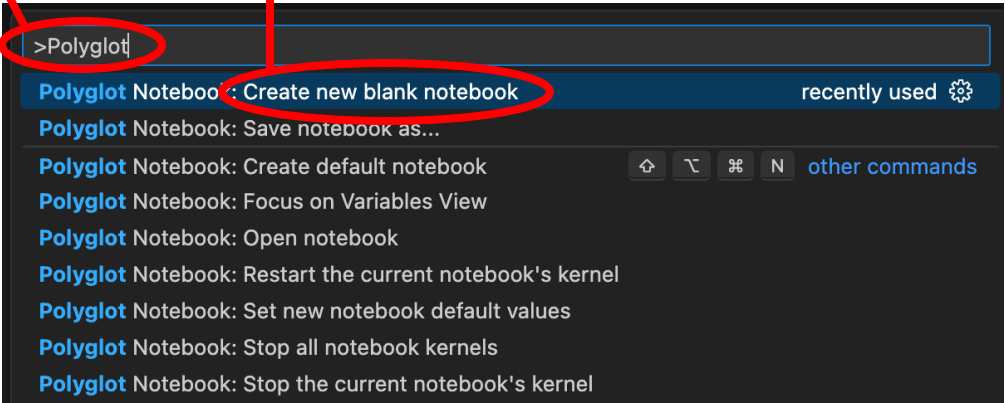
1. Start Visual Studio Code.
2. Click on the icon to go to the EXTENSIONS: MARKETPLACE
3. Enter “notebook” in the search box.
4. Select “Polyglot Notebooks” (make sure you get the official Microsoft version).



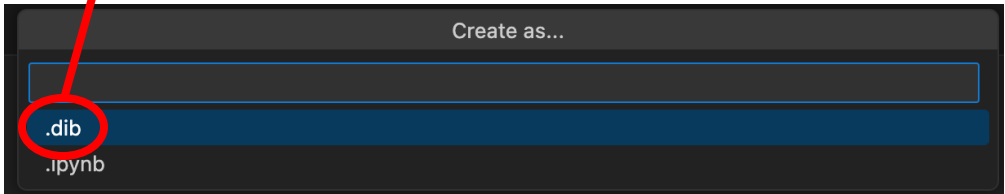
5. Click “Install” and follow any instructions.

After Polyglot Notebooks is installed in Visual Studio Code:

- 1. Press Ctrl+Shift+P on Windows computers (Command+Shift+P on MacOS)
- 2. Enter “Polyglot” in the search box.
- 3. Click “Create new blank notebook”.



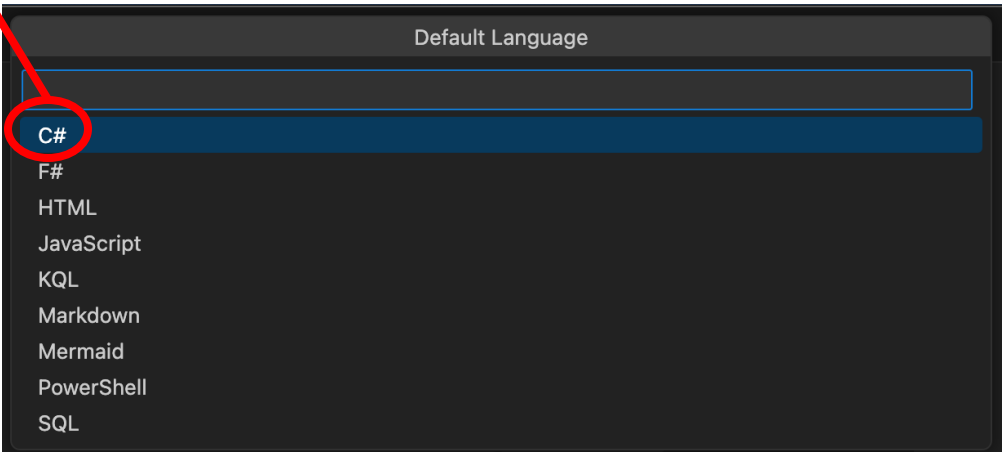
- 4. Select “.dib”.



*FYI: .dib files are "dotnet interactive notebooks" file format
.ipynb are "Jupyter notebook" file format.
Both will work but .dib files take up less space on your computer.*

Creating your first Polyglot Notebook

- 5. Select “C#” as the default programming language.



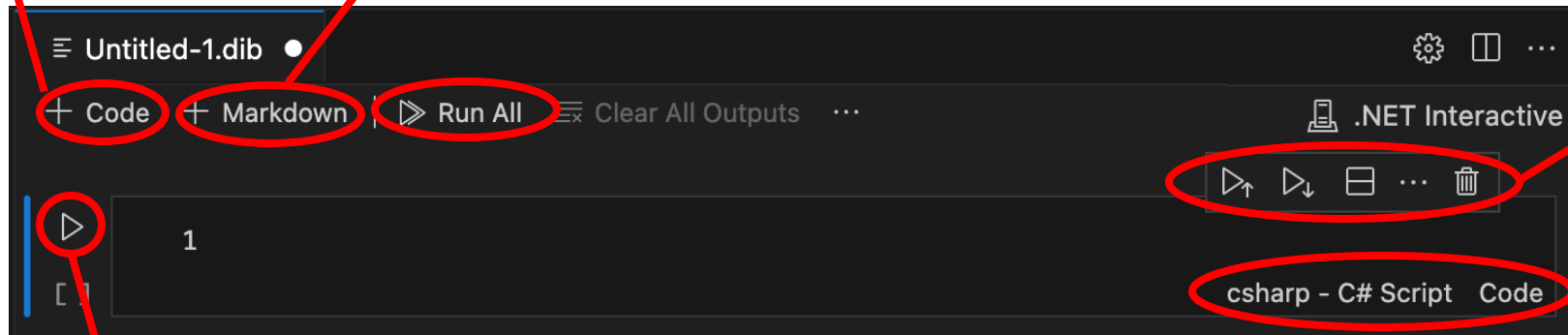
Inside Polyglot Notebooks:

Click the “+ Code” button to create a new Code cell.

Click the “+ Markdown” button to create a new Markdown text cell.

Click the “Run All” button to run code in all the cells.

Inside Polyglot Notebooks



Hover your mouse over the other buttons to find out what they do.

Look here to find if you are in a Code cell or a Markdown cell.

Click the triangular play button to run just the code in the current cell.

- A Polyglot Notebook is made of multiple “cells”.
 - Each cell contains either code or markdown.
 - Code cells is where we will write our C# code.
 - Markdown cells is where you can write your notes. You can write plain text or use “markdown” to format your text.
- For more information check out the Markdown Cheat Sheet: <https://www.markdownguide.org/cheat-sheet/>

Code inside Polyglot Notebooks

In Polyglot Notebook code cells don't need a separate Main function to run.

You can write all your code into one cell, or you can separate it between multiple cells.

If you create a variable in one cell and you want to use it in another cell, make sure you run the cell where you created your variable first.

You can see which variables have been created by viewing the bottom pane. (Windows: Ctrl+j; MacOS: Command+j)

```
1 public class MyClass
2 {
3     public string MyProperty { get; set; }
4
5     public MyClass(string myProperty)
6     {
7         MyProperty = myProperty;
8     }
9
10    public void SayHello()
11    {
12        Console.WriteLine($"Hello, {MyProperty}!");
13    }
14 }
```

[1] ✓ 1.9s csharp - C# Script Code

```
1 // Create an instance of MyClass and call its method
2 MyClass myObject = new MyClass("World");
```

[2] ✓ 0.0s csharp - C# Script Code

```
1 myObject.SayHello();
```

[3] ✓ 0.0s csharp - C# Script Code

... Hello, World!

TERMINAL PORTS MEMORY XRTOS **POLYGLOT NOTEBOOK** COMMENTS PROBLEMS OUTPUT ...

Polyglot Notebook variables

Name	Value	Type	Kernel	Actions
myObject	Submission#1+MyClass	Submission#1+MyClass	csharp - C# Script	

Markdown inside Polyglot Notebooks

```
1 # Title
2 ## Header 1
3 ### Header 2
4 #### Header 3
5 Just normal text
6 1. Numbered bullet point
7 * Normal bullet point
8
9 You can even write LaTeX if you want:  $x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$ 
```

markdown

Title

Header 1

Header 2

Header 3

Just normal text

1. Numbered bullet point

- Normal bullet point

You can even write LaTeX if you want: $x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$

After you have written your markdown click on the “Stop Editing Cell” check mark or press “Ctrl+Enter” to turn your markdown into formatted text.

Pros

- Allows you to quickly try code without needing to create a Main function and build your application.
- Great for learning C#.
- Write your own notes in markdown cells and code along with your lecturer during lectures and tutorials.

Cons

- SplashKit won't work in Polyglot Notebooks
- Console.ReadLine() won't work either but see the Week3.dib file for a workaround.

To Learn More, See:

- **Polyglot Notebooks in VS Code**
- <https://code.visualstudio.com/docs/languages/polyglot>
- **Introduction to Polyglot Notebooks**
- <https://learn.microsoft.com/en-us/training/modules/polyglot-notebooks/>

