

# Setup: Development Environment

## Overview

This setup activity will prepare you with the development tools, extensions, and services necessary to complete the assigned activities and projects in the course.

All of these tools and services are **free** to use for the duration of the course. You do NOT need to purchase any software or services nor provide a credit card to complete this course.

## Instructions

### Integrated Development Environment

This course will use **Visual Studio Code** versus [Visual Studio "Full"](#). The full version Visual Studio IDE is a full-featured development tool for Windows that is used by many professional developers. However, it is a large download and more restrictive platform given its power. **Visual Studio Code** is a lightweight IDE that is easy to use and has a large community of developers that have created extensions to add functionality to the IDE. It is also cross-platform, meaning that it can be used on Windows, Mac, and Linux operating systems.

- ✓ [Visual Studio Code](#) – Verify that you have an up-to-date, working instance of VS Code running and install or update as needed.
  - To check for **updates** in VS Code, click on **Help -> Check for Updates...**

Reference:  [VS Code Documentation](#).

- ✓ Add the [C# extension](#) to VS Code.
- ✓ Add the [C# Dev Kit extension](#) to VS Code.

"C# Dev Kit is an extension created to enhance your C# development experience in Visual Studio Code. It aims to bring a more expansive, productive, and reliable C# experience to VS Code. The Dev Kit does not replace the existing C# extension but adds on top of the great language service features it provides. Developers can choose to continue using the updated version of the existing C# extension or enhance their experience by adding the C# Dev Kit." – [code.visualstudio.com/docs](https://code.visualstudio.com/docs)

Note that you may need to restart VS Code in order for the C# Dev Kit extension to be recognized.

## Git

- ✓ Verify that you have Git installed by opening a terminal (Mac) or CMD prompt/ PowerShell (Windows) and typing `git --version`. If you get an error, you need to [install or update Git](#).

## Project Hosting: GitHub

- ✓ Projects in this class will be hosted on [GitHub](#).
- ✓ Each project must have a GitHub repository associated with it.

Your repositories must remain **public** throughout the course for assignment submissions and peer reviews. Make sure all projects are updated to GitHub before assignment due dates.

- ✓ Verify that git is configured on your computer. To do this:
  - Open VS Code and access the terminal (**Terminal** → **New Terminal**)
  - Verify your configuration:

```
git config --global --list
```

- If needed, set your Git identity (use your GitHub email):

```
git config --global user.name "Your Full Name"  
git config --global user.email "your-github-email@example."
```

- ✓ Install the GitHub Pull Requests extension for VS Code:
  - [GitHub Pull Requests and Issues](#) - Enables GitHub integration

### Best Practices for Course Work:

- Commit changes frequently with descriptive messages
- Create separate folders for different projects
- Use branches for experimental features: `git checkout -b feature-name`
- Keep your repository organized and include README files explaining each project
- Never commit sensitive information (passwords, API keys, etc.)

## Trello – Project Management

- ✓ Sign up for a free Trello account at [trello.com](https://trello.com).
- ✓ For additional information and instruction, visit [Trello - Project Management Tool](#)

## Server Environment / Manager

- ✓ [.NET](#) - Verify and install/update the latest Long Term Support version of .NET. This is the version that can be used in the online, Microsoft tutorials. Follow the instructions for your operating system.

---

Next ➡ **Setup Groups**

Copyright © Brigham Young University-Idaho | All rights reserved