



# Git & GitHub Classroom

**FIRST**

Nội dung dành cho sinh viên

# Nội dung



Git basic  
Git – GitHub – VS code  
Git advanced  
- Individual  
- Team

A



B

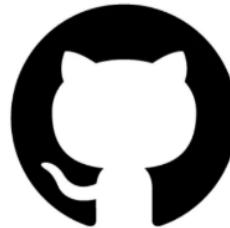
**Student work**  
Git basic  
Join class – Do homework – Submit

C



D

# Nội dung



A

- Git basic
- Git – GitHub – VS code
- Git advanced
  - Individual
  - Team



# Introduction & Installation

[Introduction to Git in VS Code](#)

[Git - Downloads](#)

The screenshot shows the GitHub 'Downloads' page for the Git repository. At the top, there's a navigation bar with the GitHub logo, a search bar containing 'Type / to search entire site...', and a dark mode toggle. Below the navigation is a sidebar with links to 'About', 'Documentation', 'Downloads' (which is currently selected), and 'Community'. A callout box highlights the 'Downloads' section, which contains links for 'macOS', 'Windows', and 'Linux/Unix'. To the right, a large monitor icon displays the latest source release '2.51.0' with a 'Download for Windows' button. Below the monitor, text mentions older releases and the GitHub repository. At the bottom, sections for 'GUI Clients' and 'Logos' are shown, each with a 'View [Clients/Logos] →' link.

--distributed-even-if-your-workflow-isnt

Type / to search entire site...

About

Documentation

**Downloads**

macOS

Windows

Linux/Unix

Older releases are available and the [Git source repository](#) is on GitHub.

**GUI Clients**

Git comes with built-in GUI tools (`git-gui`, `gitk`), but there are several third-party tools for users looking for a platform-specific experience.

[View GUI Clients →](#)

**Logos**

Various Git logos in PNG (bitmap) and EPS (vector) formats are available for use in online and print projects.

[View Logos →](#)



# GitHub account

[Sign up](#)[Product](#) [Solutions](#) [Resources](#) [Open Source](#) [Enterprise](#) [Pricing](#) Search or jump to...[Sign in](#)[Sign up](#)

## Build and ship software on a single, collaborative platform

Join the world's most widely adopted AI-powered developer platform.

 Enter your email[Sign up for GitHub](#)[Try GitHub Copilot](#)



# VS Code **Clone** Hello Project

The screenshot shows the Visual Studio Code interface. A yellow box highlights the 'Clone Git Repository...' option in the 'Start' menu, which is circled with a large orange number '1'. Another yellow box highlights the URL 'https://github.com/vnTranTuan/FPOLY-HelloWorld' in the address bar, which is circled with a large orange number '2'. The interface includes a 'Recent' section with a link to a GitHub repository, a 'Walkthroughs' section with several cards, and a status bar at the bottom.

VS Code

Editing evolved

File Edit Selection View Go Run

Welcome

https://github.com/vnTranTuan/FPOLY-HelloWorld

Clone from URL https://github.com/vnTranTuan/FPOLY-HelloWorld

Clone from GitHub

1

2

https://github.com/vnTranTuan/FPOLY-HelloWorld

Start

- New File...
- Open File...
- Open Folder...
- Clone Git Repository...**
- Connect to...
- Generate New Workspace...

Recent

- FPOLY-HelloWorld E:\WorkFolder\2025\HelloProject
- https---github.com-vnTranTuan-FPOLY-COM108-HelloWorld E:\WorkFolder\20...

Walkthroughs

- Get started with VS Code**  
Customize your editor, learn the basics, and start coding
- Get Started with C++ Development** New
- Learn the Fundamentals**
- GitHub Copilot** Updated
- Get Started with Python Development** Updated

Show welcome page on startup

0 0 △ 0

Go Live Continue



# VS Code **Clone** Hello Project

The screenshot shows the Visual Studio Code interface with the following details:

- Title Bar:** FPOLY-Helloworld
- Activity Bar (Left):** Includes icons for File, Find, Go, Open, Save, and others.
- Explorer View:** Shows the project structure:
  - FPOLY-HELLOWORLD (selected)
  - .vscode
  - hello.c (highlighted)
  - hello.exe
- Code Editor (Right):** Displays the contents of `hello.c`:

```
1 #include<stdio.h>
2
3 int main() {
4     printf("Hello, World!");
5     return 0;
6 }
7
8
```
- Bottom Status Bar:** Includes git status (master), file count (0), warning count (0), Git Graph, and various workspace settings like Spaces: 4, UTF-8, CRLF, and file type indicators.



# Ví dụ - GitHub Create Empty Repository

Đăng nhập vào GitHub

1. Click nút
2. Chọn menu **New repository**
3. Điền thông tin  
**Repository name**

Ví dụ :

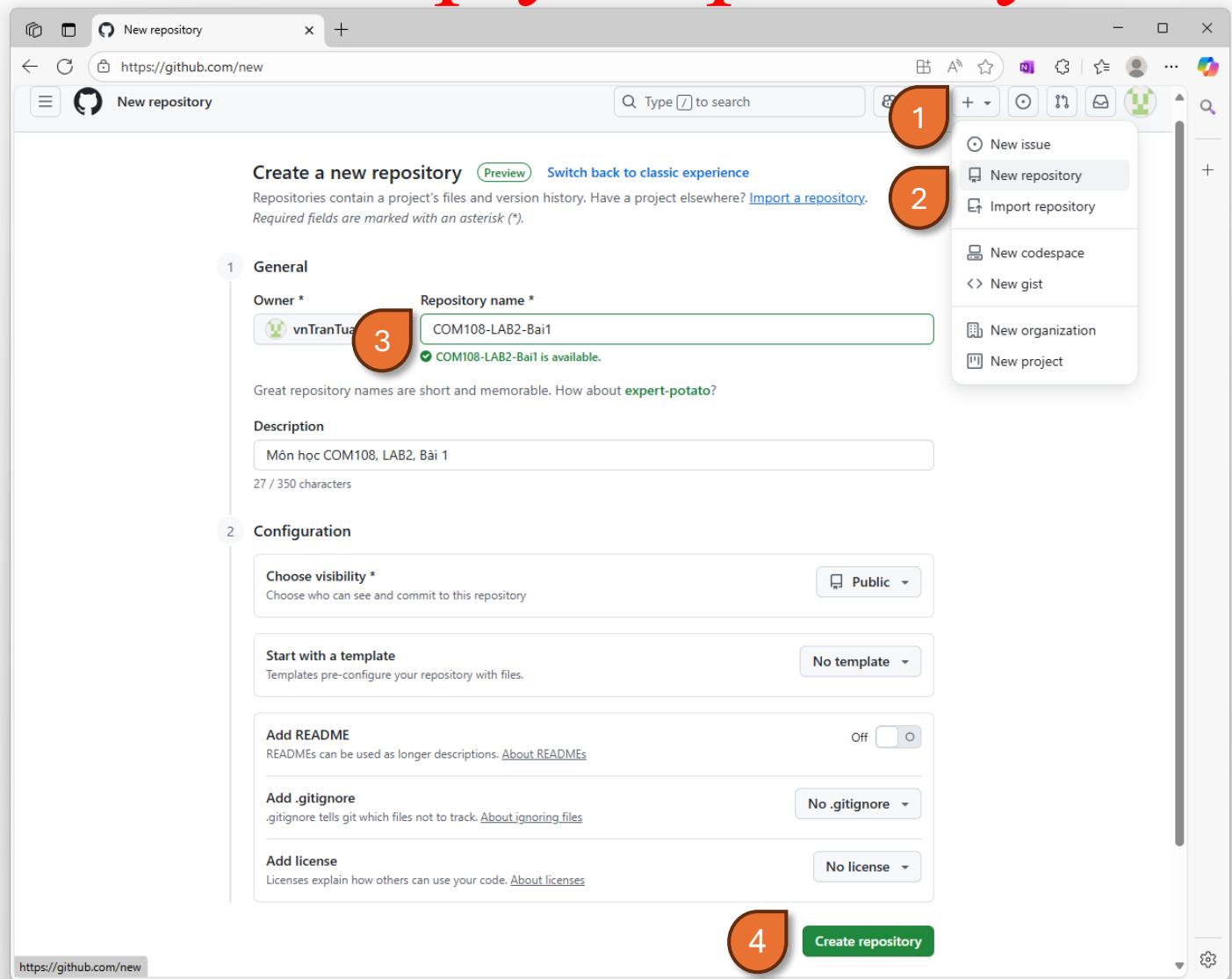
**COM108-LAB2-Bai1**

**Description**

Ví dụ :

**Môn học COM108, Repository của LAB2, Bài 1**

4. Click nút **Create repository**





# Ví dụ - GitHub Create Empty Repository

Trang web của repository đã tạo

1

**https://github.com/<user name>/<repository name>**

The screenshot shows a GitHub repository page for 'vnTranTuan/COM108-LAB2-Bai1'. A yellow callout box highlights the URL 'https://github.com/vnTranTuan/COM108-LAB2-Bai1' with a red number '1' above it. Below the URL, the page displays 'Quick setup — if you've done this kind of thing before' with options for 'Set up in Desktop' or 'HTTPS / SSH'. It provides command-line instructions for creating a new repository or pushing an existing one. A red number '2' is placed above the 'Quick setup' section.

Quick setup — if you've done this kind of thing before

Set up in Desktop or HTTPS / SSH https://github.com/vnTranTuan/COM108-LAB2-Bai1.git

Get started by [creating a new file](#) or [uploading an existing file](#). We recommend every repository include a [README](#), [LICENSE](#), and [.gitignore](#).

...or create a new repository on the command line

```
echo "# COM108-LAB2-Bai1" >> README.md
git init
git add README.md
git commit -m "first commit"
git branch -M main
git remote add origin https://github.com/vnTranTuan/COM108-LAB2-Bai1.git
git push -u origin main
```

...or push an existing repository from the command line

```
git remote add origin https://github.com/vnTranTuan/COM108-LAB2-Bai1.git
git branch -M main
git push -u origin main
```



# Ví dụ - GitHub Create Empty Repository

## LƯU Ý

Quick setup của Empty repository đã tạo

2

Quick setup — if you've done this kind of thing before

[Set up in Desktop](#) or [HTTPS](#) [SSH](#) <https://github.com/vnTranTuan/COM108-LAB2-Bai1.git>

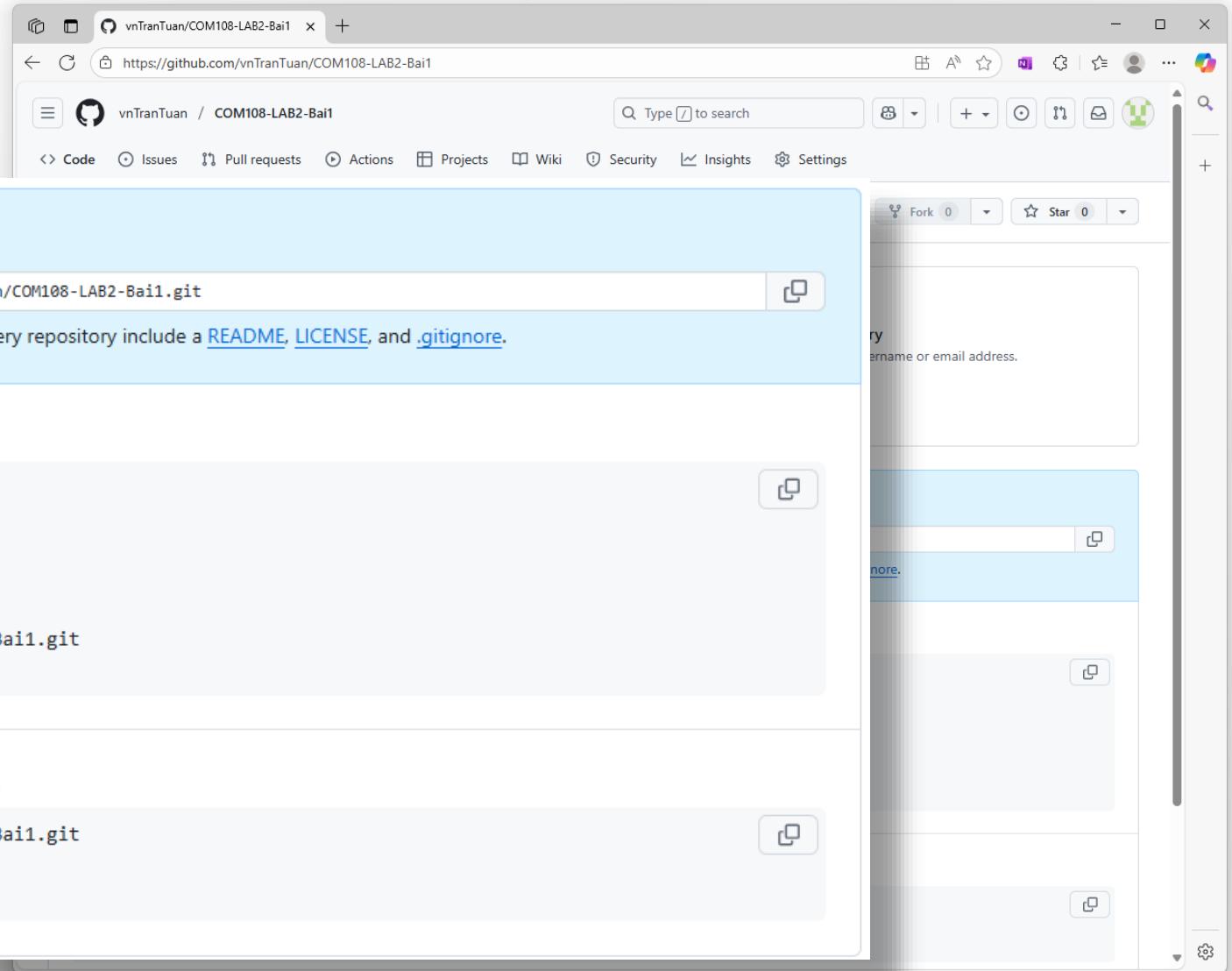
Get started by [creating a new file](#) or [uploading an existing file](#). We recommend every repository include a [README](#), [LICENSE](#), and [.gitignore](#).

...or create a new repository on the command line

```
echo "# COM108-LAB2-Bai1" >> README.md
git init
git add README.md
git commit -m "first commit"
git branch -M main
git remote add origin https://github.com/vnTranTuan/COM108-LAB2-Bai1.git
git push -u origin main
```

...or push an existing repository from the command line

```
git remote add origin https://github.com/vnTranTuan/COM108-LAB2-Bai1.git
git branch -M main
git push -u origin main
```





# VS Code - Create Project (*ví dụ LAB2, bài 1*)

The screenshot shows the Visual Studio Code interface with the following details:

- File Explorer:** Shows a project folder named "LAB2\_BAI1" containing "bai1.c" and "README.md".
- Editor:** The "bai1.c" file is open, displaying the following C code:

```
#include <stdio.h>

int main() {
    // Chao mung ban den voi FPOLY
    // Mon hoc COM108 - Nhap mon lap trinh
    // LAB2 - bai1
    printf("Hello, FPOLY!\n");
    printf("COM108, LAB2 - bai1\n");

    // Cac lenh nhap vao so A

    // Cac lenh nhap vao so B

    // Cac lenh tinh tong cac so A, va B

    return 0;
}
```
- README.md:** The "README.md" file contains the following text:

YÊU CẦU

Xây dựng chương trình cộng / trừ (+/-) 2 số

Input : Nhập vào từ bàn phím 2 số

Output: Hiển thị ra màn hình tổng, hiệu của 2 số

HƯỚNG DẪN THỰC HIỆN

  - Khai báo các biến số A, B và các kết quả Tổng, Hiệu của 2 số
  - Dùng lệnh scanf để nhập từ bàn phím
  - Dùng lệnh printf để hiển thị nội dung ra màn hình
- Bottom Bar:** Includes tabs for "OUTLINE" and "TIMELINE", and status indicators for "Ln 26, Col 1", "Spaces: 4", "UTF-8", "CRLF", "C", "Go Live", "Win32", "Continue", and a notification bell.

Gợi ý thực hiện / **Starter Code**

Yêu cầu và hướng dẫn thực hiện



# VS Code – Git Initialize Repository

The folder currently open doesn't have a Git repository. You can initialize a repository which will enable source control features powered by Git.

**Initialize Repository** 1

Learn more about how to use Git and source control in VS Code [read our docs](#). 2

You can directly publish this folder to a GitHub repository. Once published, you'll have access to source control features powered by Git and GitHub.

**Publish to GitHub**

bai1.c

```
1 #include <stdio.h>
2
3 int main() {
4     // Chao mung ban den voi FPOLY
5     // Mon hoc COM108 - Nhap mon lap trinh
6     // LAB2 - bai1
7     printf("Hello, FPOLY!\n");
8     printf("COM108, LAB2 - bai1\n");
9
10    // Cac lenh nhap vao so A
11
12
13
14
15    // Cac lenh nhap vao so B
16
17
18
19
20    // Cac lenh tinh tong cac so A, va B
21
22
23
24    return 0;
25 }
26
```

README.md

```
1 YÊU CẦU
2 Xây dựng chương trình cộng / trừ (+/-) 2 số
3 Input : Nhập vào từ bàn phím 2 số
4 Output: Hiển thị ra màn hình tổng, hiệu của
2 số
5
6
7 HƯỚNG DẪN THỰC HIỆN
8 1. Khai báo các biến số A, B và các kết quả
Tổng, Hiệu của 2 số
9 2. Dùng lệnh scanf để nhập từ bàn phím
10 3. Dùng lệnh printf để hiển thị nội dung ra
màn hình
11
```

File Edit Selection View Go Run ...

LAB2\_Bai1

0 0 △ 0

Ln 26, Col 1 Spaces: 4 UTF-8 CRLF {} C ⚙ Go Live Win32 ✓ Continue



# VS Code – Git Commit changes

The screenshot shows the Visual Studio Code interface with the following details:

- File Explorer:** Shows a repository named "LAB2\_Bai1" with two files: "bai1.c" and "README.md".
- Source Control View:** Displays a commit message: "LAB2, Bài 1 Hướng dẫn và Starter Code".
- Commit Dialog:** A modal window titled "Commit" is open, containing:
  - A "Changes" section with a count of 2.
  - A "C bai1.c" section with a count of 1.
  - A "① README.md" section with a count of 1.
- Status Indicators:** In the bottom right of the Source Control view, there are three status icons: "2" (green), "U" (blue), and "U" (blue).
- Code Editor:** The main editor area displays the "bai1.c" file content, which includes comments in Vietnamese and C code for calculating the sum of two numbers.
- Terminal:** The bottom status bar shows the current file is "main.c" and the terminal mode is active ("Git Graph").



# VS Code – Git Commit changes

The screenshot shows the Visual Studio Code interface with a dark theme. On the left, the Source Control sidebar is open, showing a repository named 'LAB2\_Bai1' with two staged changes: 'bai1.c' and 'README.md'. A prominent blue button labeled '✓ Commit' is visible. The main editor area displays a C program named 'bai1.c' with the following code:

```
1 #include <stdio.h>
2
3 int main() {
4     // Chao mung ban den voi FPOLY
5     // Mon hoc COM108 - Nhap mon lap trinh
6     // LAB2 - bai1
7     printf("Hello, FPOLY!\n");
8     printf("COM108, LAB2 - bai1\n");
9
10    // Cac lenh nhap vao so A
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25     return 0;
26 }
```

To the right of the code, there is a large block of Vietnamese text describing the assignment. A modal dialog box titled 'Visual Studio Code' is displayed in the center, containing the message: 'There are no staged changes to commit. Would you like to stage all your changes and commit them directly?'. It includes four buttons: 'Yes' (highlighted with a red circle containing the number 5), 'Always', 'Never', and 'Cancel'. The status bar at the bottom shows the file path 'main\*' and other status indicators.



# VS Code – Git Publish

The screenshot shows the VS Code interface with the Git Publish dialog open. The dialog provides options for quick setup, creating a new repository on the command line, or pushing an existing repository from the command line. Step numbers 6 are highlighted on the command-line instructions.

**Quick setup — if you've done this kind of thing before**

[Set up in Desktop](#) or [HTTPS](#) [SSH](#) <https://github.com/vnTranTuan/COM108-LAB2-Bai1.git>

Get started by [creating a new file](#) or [uploading an existing file](#). We recommend every repository include a [README](#), [LICENSE](#), and [.gitignore](#).

**...or create a new repository on the command line**

```
echo "# COM108-LAB2-Bai1" >> README.md  
git init  
git add README.md  
git commit -m "first commit"  
git branch -M main  
git remote add origin https://github.com/vnTranTuan/COM108-LAB2-Bai1.git  
git push -u origin main
```

**...or push an existing repository from the command line**

```
git remote add origin https://github.com/vnTranTuan/COM108-LAB2-Bai1.git  
git branch -M main  
git push -u origin main
```

6

6



# VS Code – Git Publish

The screenshot shows the Visual Studio Code interface with the following details:

- SOURCE CONTROL:** Shows a repository named "LAB2\_Bai1" with a "main" branch.
- CHANGES:** A message box says "Message (Ctrl+Enter to commit on 'main'...)" and a "Publish Branch" button is visible.
- Files:** Two files are open: "bai1.c" and "README.md".
- Terminal:** The terminal tab is highlighted with a yellow circle and the number 6. The command "git branch -M main" is entered in the terminal.
- Output:** The output pane shows the following text:

```
YÊU CẦU Use Ctrl + I to generate code
Xây dựng chương trình cộng / trừ (+/-) 2 số
Input : Nhập vào từ bàn phím 2 số
Output: Hiển thị ra màn hình tổng, hiệu của
2 số

HƯỚNG DẪN THỰC HIỆN
1. Khai báo các biến số A, B và các kết quả
Tổng, Hiệu của 2 số
2. Dùng lệnh scanf để nhập từ bàn phím
3. Dùng lệnh printf để hiển thị nội dung ra
màn hình
```
- Bottom Status Bar:** Shows file paths like "E:\WorkFolder\2025\COM108\LAB2\LAB2\_Bai1", the current branch "main", and other status indicators.

Chạy lần lượt các lệnh sau, với <username> đã đăng nhập

```
git branch -M main
git remote add origin https://github.com/<username>/COM108-LAB2-Bai1.git
git push -u origin main
```



# VS Code Git Publish

```

File Edit Selection View ... ← → LAB2_Bai1
File Edit Selection View ... ← → LAB2_Bai1
SOURCE CONTROL ...
REPOSITORIES LAB2_E main ...
CHANGES Message (Ctrl+Enter to commit...) ✓ Commit
PROBLEMS OUTPUT TERMINAL PORTS AZURE
GRAPH ...
LAB2, Bài 1 Hướng dẫn v... @ main
PS E:\WorkFolder\2025\COM108\LAB2\LAB2_Bai1>
PS E:\WorkFolder\2025\COM108\LAB2\LAB2_Bai1>
M108-LAB2-Bai1.git
PS E:\WorkFolder\2025\COM108\LAB2\LAB2_Bai1>
Enumerating objects: 4, done.
Counting objects: 100% (4/4), done.
Delta compression using up to 8 threads
Compressing objects: 100% (4/4), done.
Writing objects: 100% (4/4), 762 bytes | 762.00 KiB/s, done.
Total 4 (delta 0), reused 0 (delta 0), pack-reused 0 (from 0)
To https://github.com/vnTranTuan/COM108-LAB2-Bai1.git
 * [new branch]      main -> main
branch 'main' set up to track 'origin/main'.
PS E:\WorkFolder\2025\COM108\LAB2\LAB2_Bai1>

```

**vnTranTuan / COM108-LAB2-Bai1**

**Code** Issues Pull requests Actions Projects Wiki Security Insights Settings

**COM108-LAB2-Bai1** Public

main 1 Branch 0 Tags Go to file + <> Code About

**vnTranTuan** LAB2, Bài 1 Hướng dẫn và Starter Code d6ae08a · 12 minutes ago 1 Commit

README.md LAB2, Bài 1 Hướng dẫn và Starter Code 12 minutes ago

bai1.c LAB2, Bài 1 Hướng dẫn và Starter Code 12 minutes ago

**README**

YÊU CẦU Xây dựng chương trình cộng / trừ (+/-) 2 số Input : Nhập vào từ bàn phím 2 số Output: Hiển thị ra màn hình tổng, hiệu của 2 số

HƯỚNG DẪN THỰC HIỆN

- Khai báo các biến số A, B và các kết quả Tổng, Hiệu của 2 số
- Dùng lệnh scanf để nhập từ bàn phím
- Dùng lệnh printf để hiển thị nội dung ra màn hình

Nội dung LAB2, Bài 1  
đã được Publish thành công  
trên website GitHub

# Tóm tắt



- ✓ 1. Cài đặt Git, và
- ✓ 2. **Sign up / Đăng ký**  
GitHub account
- ✓ 3. **Clone repository:** download  
nội dung từ một GitHub Repository
- ✓ 4. **Create repository / Tạo**  
một Empty GitHub Repository
- ✓ 5. **Publish repository / upload**  
nội dung lên GitHub Repository