Heavens light is our guide

Rajshahi University of Engineering and Technology

Electrical & Computer Engineering

ECE 3118 (Software Engineering & Information System Design Sessional)

Lab report-01:

Markdown language,code implementation using 3 naming styles and git commands.

Submitted To

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Submission date:22/05/24

Name of the experiment-1:

Basic documentation using mark down language.

Description:

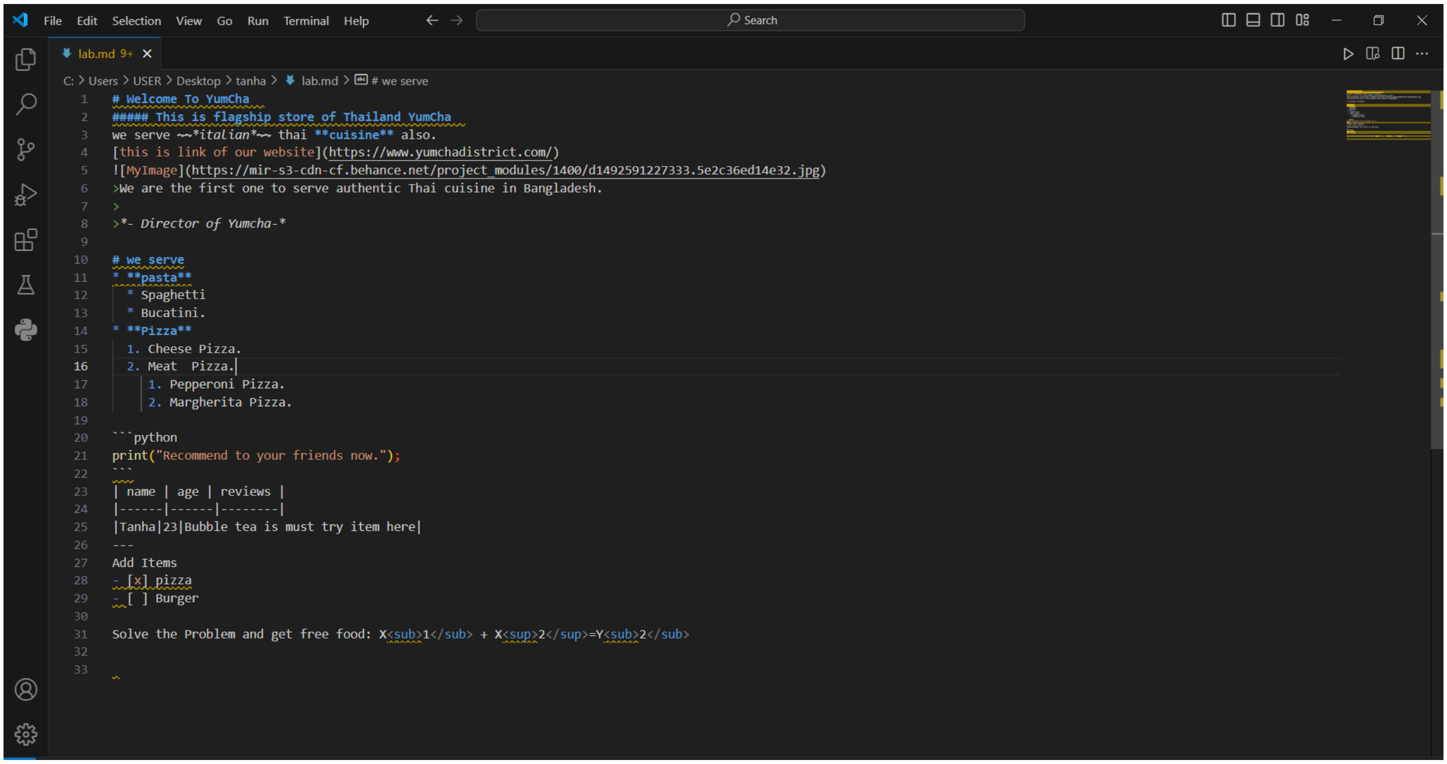
When it comes to making a website or app, coding involves basically three types of languages i.e the programming language, Scripting Language and Markup Language.

- **programming language:**
  it is used to compile high level language into machine language through compiler. Examples of programming languages include Java, C++, C#, and Python.Programming languages are capable of implementing algorithms, data structures, and complex logic.
- **Scripting:**
  Scripting languages are typically interpreted rather than compiled.Examples of scripting languages include JavaScript, Python, Ruby, and Perl.While scripting languages can be used for more complex tasks than markup languages, they are generally not as powerful as full-fledged programming languages.
- **Markup:**
  This shows formatted text.It shows data in structured way.here HTML,XML is used.

There is another language like Markdown.

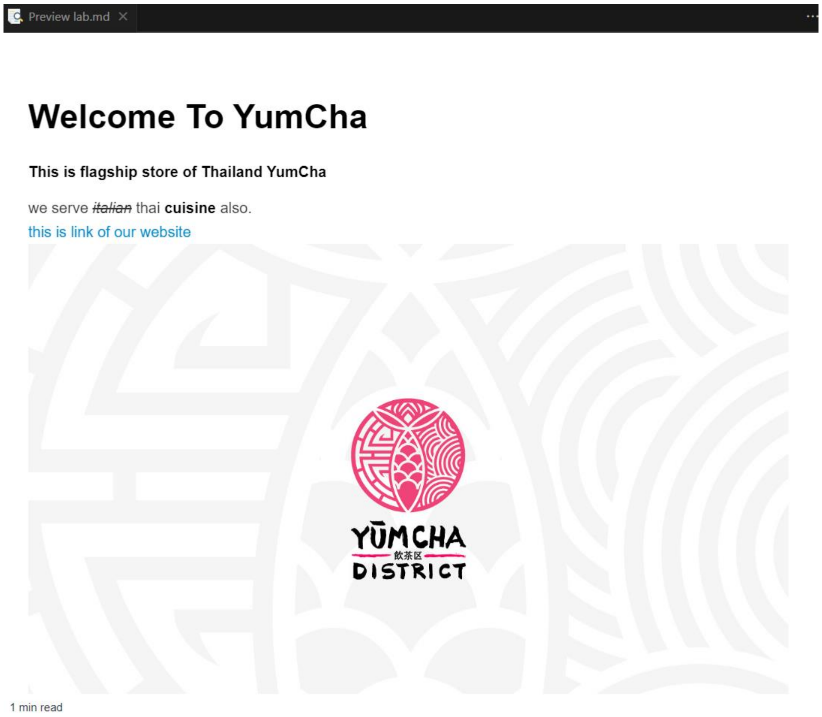
- **Markdown:**
  It is a lightweight markup language for creating formatted text using a plain-text editor. Markdown is widely used for blogging and instant messaging, and also used elsewhere in online forums, collaborative software, documentation pages, and readme files.

Code :



~~~
# Welcome To YumCha
##### This is flagship store of Thailand YumCha
we serve ~~*italian*~~ thai **cuisine** also.
[this is link of our website](https://www.yumchadistrict.com/)
![MyImage](https://mir-s3-cdn-cf.behance.net/project_modules/1400/d1492591227333.5e2c36ed14e32.jpg)
>We are the first one to serve authentic Thai cuisine in Bangladesh.
>
>*- Director of Yumcha-*

# we serve
* **pasta**
  * Spaghetti
  * Bucatini.
* **Pizza**
  1. Cheese Pizza.
  2. Meat  Pizza.
     1. Pepperoni Pizza.
     2. Margherita Pizza.

```python
print("Recommend to your friends now.");
```
| name | age | reviews |
|------|------|--------|
|Tanha|23|Bubble tea is must try item here|
---
Add Items
- [x] pizza
- [ ] Burger

Solve the Problem and get free food: X<sub>1</sub> + X<sup>2</sup>=Y<sub>2</sub>
~~~

Output:

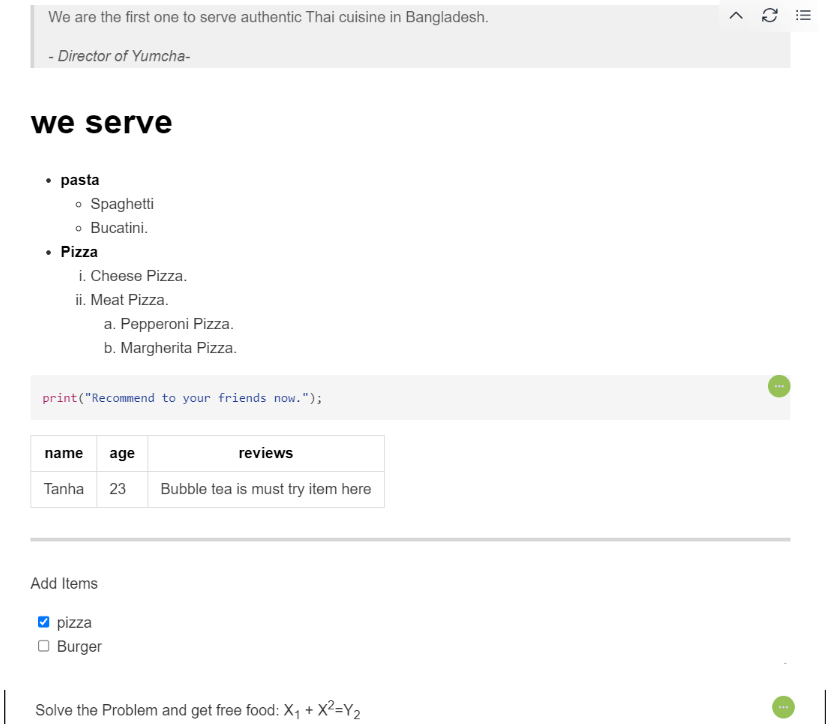


Welcome To YumCha

This is flagship store of Thailand YumCha

we serve ~~*italian*~~ thai **cuisine** also.
this is link of our website

1 min read



> We are the first one to serve authentic Thai cuisine in Bangladesh.
>
> *- Director of Yumcha-*

we serve

- **pasta**
  - Spaghetti
  - Bucatini.
- **Pizza**
  - i. Cheese Pizza.
  - ii. Meat Pizza.
    - a. Pepperoni Pizza.
    - b. Margherita Pizza.

```
print("Recommend to your friends now.");
```

name	age	reviews
Tanha	23	Bubble tea is must try item here

Add Items

☑ pizza
☐ Burger

Solve the Problem and get free food: $X_1 + X^2=Y_2$

Name of the experiment-2:

4 kinds of naming techniques and Code implementation(3 styles)

Description:

As programmers, we name a lot of things. Such as variables, functions, classes, methods, interfaces and so on. Throughout the years, developers have used different case types to name different entities in their code. And four of them have proved to be the most popular ones. They are:

- **Camel Case**:

  In camel case, We start a name with a small letter. If the name has multiple words, the later words will start with a capital letter.There should be no space in between them.Here are some examples of camel case: **f**irst**N**ame and **l**ast**N**ame.It is basically used in javascript,java,C#

- **Snake Case**:

  Like in camel case, we start the name with a small letter in snake case. If the name has multiple words, the later words will start with small letters and you use a underscore (_) to separate the words.Here are some examples of snake case: first_name and last_name.It is used in python,ruby,javascript.

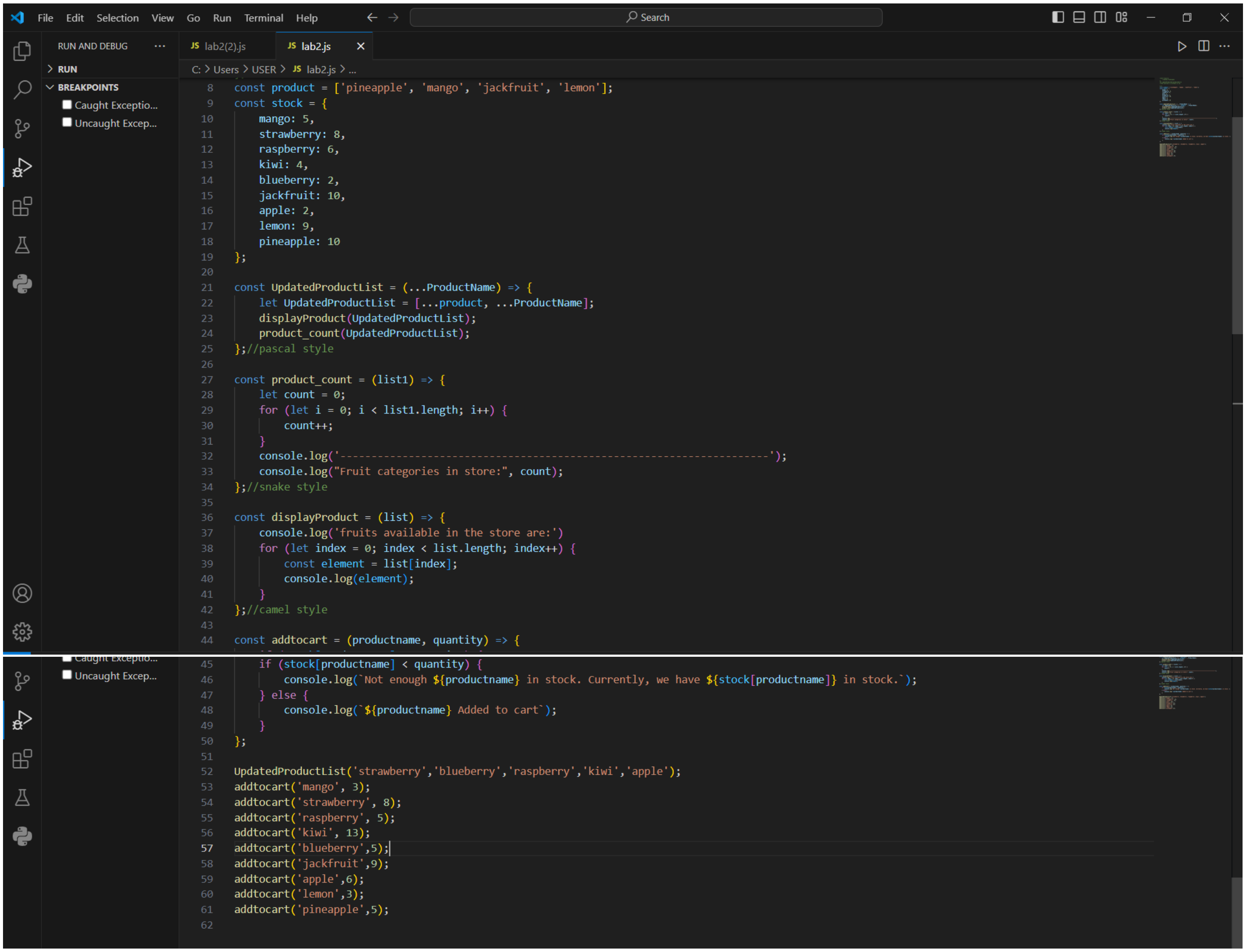
- **Kebab Case**:

Kebab case is similar to snake case, but you use a hyphen (-) instead of an underscore (_) to separate the words.Here are some examples of kebab case: first-name and last-name.It is used in Html, css

- **Pascal Case:**

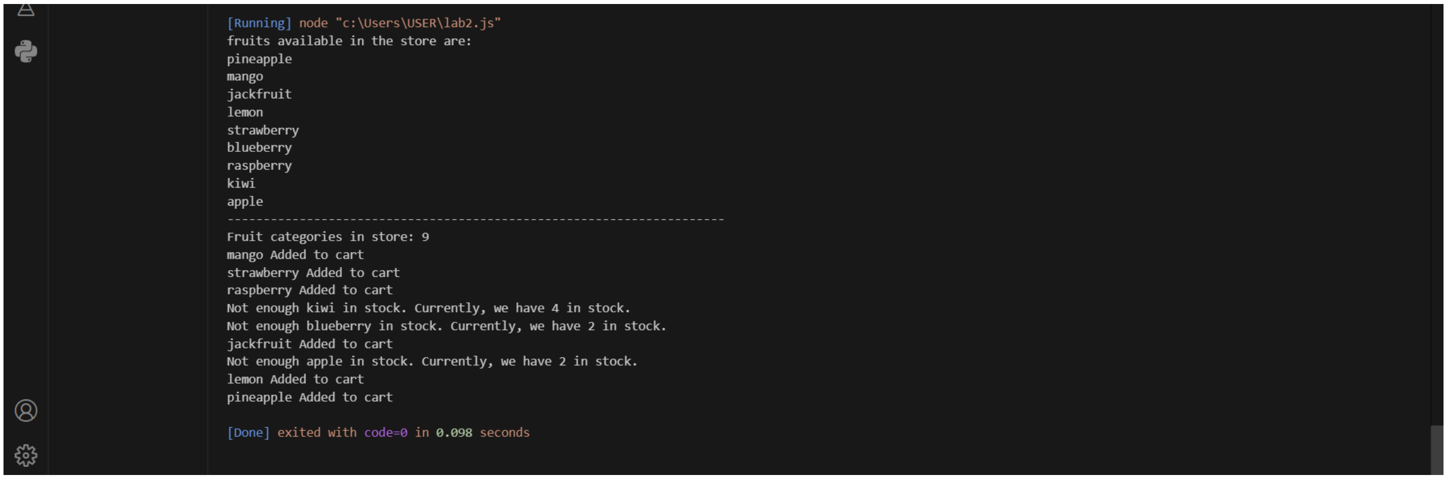
  Unlike the previous examples, names in pascal case start with a capital letter. In case of the names with multiple words, all words will start with capital letters.Here are some examples of pascal case: **F**irst**N**ame and **L**ast**N**ame.It is used in Java,typescript,c#

Code implementing 3 styles:



```javascript
const product = ['pineapple', 'mango', 'jackfruit', 'lemon'];
const stock = {
    mango: 5,
    strawberry: 8,
    raspberry: 6,
    kiwi: 4,
    blueberry: 2,
    jackfruit: 10,
    apple: 2,
    lemon: 9,
    pineapple: 10
};

const UpdatedProductList = (...ProductName) => {
    let UpdatedProductList = [...product, ...ProductName];
    displayProduct(UpdatedProductList);
    product_count(UpdatedProductList);
};//pascal style

const product_count = (list1) => {
    let count = 0;
    for (let i = 0; i < list1.length; i++) {
        count++;
    }
    console.log('---------------------------------------------------------------------');
    console.log("Fruit categories in store:", count);
};//snake style

const displayProduct = (list) => {
    console.log('fruits available in the store are:')
    for (let index = 0; index < list.length; index++) {
        const element = list[index];
        console.log(element);
    }
};//camel style

const addtocart = (productname, quantity) => {
    if (stock[productname] < quantity) {
        console.log(`Not enough ${productname} in stock. Currently, we have ${stock[productname]} in stock.`);
    } else {
        console.log(`${productname} Added to cart`);
    }
};

UpdatedProductList('strawberry','blueberry','raspberry','kiwi','apple');
addtocart('mango', 3);
addtocart('strawberry', 8);
addtocart('raspberry', 5);
addtocart('kiwi', 13);
addtocart('blueberry',5);
addtocart('jackfruit',9);
addtocart('apple',6);
addtocart('lemon',3);
addtocart('pineapple',5);
```

Output:



```
[Running] node "c:\Users\USER\lab2.js"
fruits available in the store are:
pineapple
mango
jackfruit
lemon
strawberry
blueberry
raspberry
kiwi
apple
----------------------------------------------------------------------
Fruit categories in store: 9
mango Added to cart
strawberry Added to cart
raspberry Added to cart
Not enough kiwi in stock. Currently, we have 4 in stock.
Not enough blueberry in stock. Currently, we have 2 in stock.
jackfruit Added to cart
Not enough apple in stock. Currently, we have 2 in stock.
lemon Added to cart
pineapple Added to cart

[Done] exited with code=0 in 0.098 seconds
```

Discussion:

Here we gave a insight what fruits we do have in the store and if there needs to be added any product, then we have to bring a function which will update the list of products.UpdateProductList() is doing the same thing which is in pascal style.Then we need to have a count how many products are currently in the store for which we introduced product_count().It follows the snake naming technique.Lastly we need to display the product.displayProduct() is doing the work which is in camel naming technique.we could have shown it in normal way like console.log('' '');.But we wanted to do it in custom way.Lastly we made a function addtocart() which is not following any naming technique though.if the customer wanting to have a product at a modest amount but it's not available in the storage, then it will show up a message 'not enough product in the store. We have this amount of product of this right now'.otherwise it will show a message 'added to cart'.

References:

(*Programming Naming Conventions – Camel, Snake, Kebab, and Pascal Case Explained*, n.d.)

Name of the experiment-3:

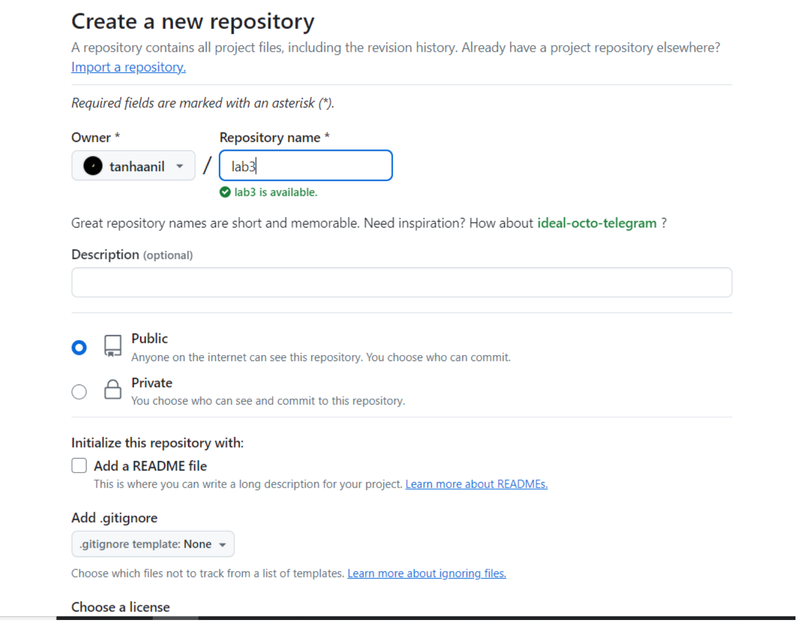
Study of different git commands.

Commands:

We will try to run the commands from vs code terminal.

Cloning:

First we will create a repository in github.



Create a new repository

A repository contains all project files, including the revision history. Already have a project repository elsewhere? Import a repository.

Required fields are marked with an asterisk (*).

Owner * tanhaanil / Repository name * lab3

lab3 is available.

Great repository names are short and memorable. Need inspiration? How about **ideal-octo-telegram** ?

Description (optional)

● Public
Anyone on the internet can see this repository. You choose who can commit.

○ Private
You choose who can see and commit to this repository.

Initialize this repository with:

□ Add a README file
This is where you can write a long description for your project. Learn more about READMEs.

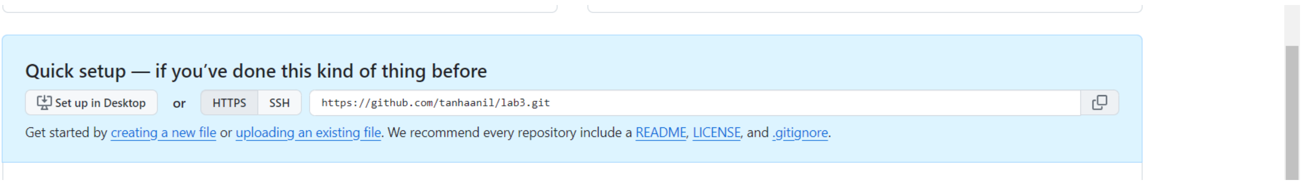
Add .gitignore

.gitignore template: None

Choose which files not to track from a list of templates. Learn more about ignoring files.

Choose a license

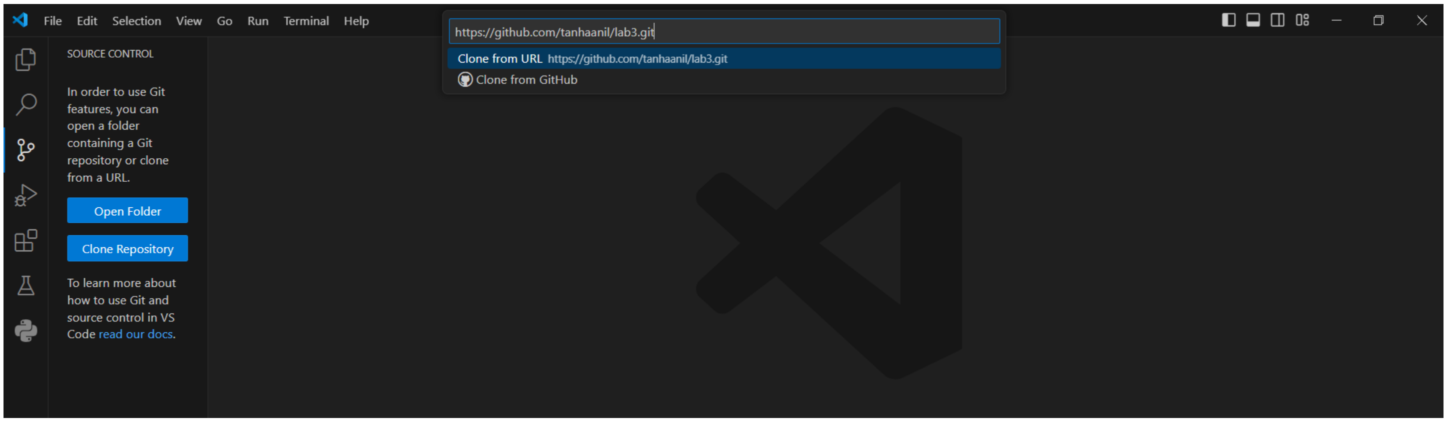
Now we will copy the url and put in source control's clone repository in vs code.



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

Set up in Desktop or HTTPS SSH `https://github.com/tanhaanil/lab3.git`

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



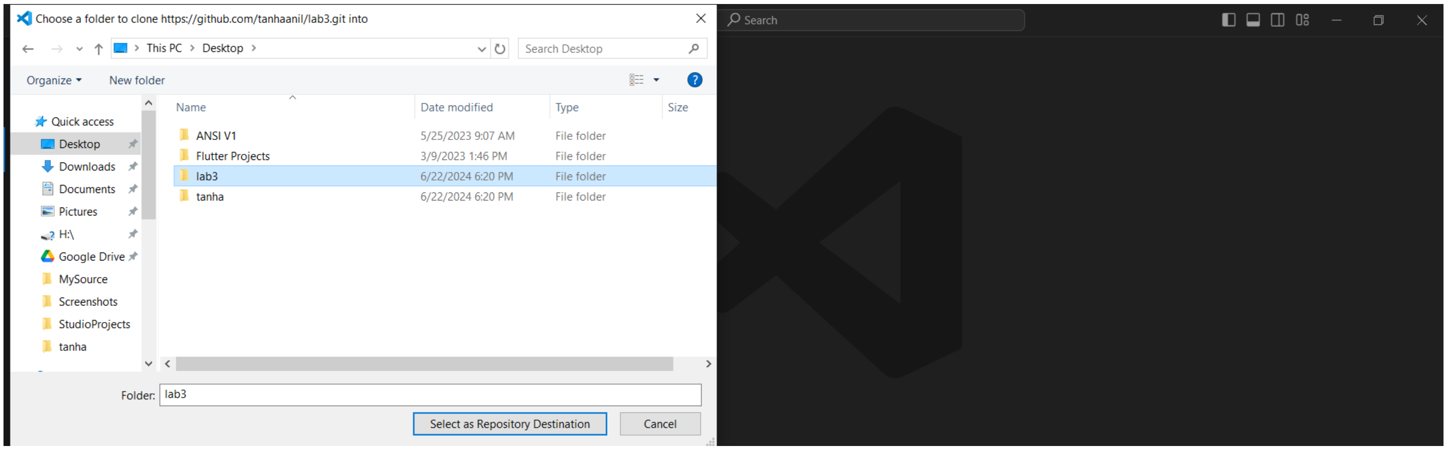
https://github.com/tanhaanil/lab3.git

Clone from URL https://github.com/tanhaanil/lab3.git

Clone from GitHub

In order to use Git features, you can open a folder containing a Git repository or clone from a URL.

To learn more about how to use Git and source control in VS Code read our docs.



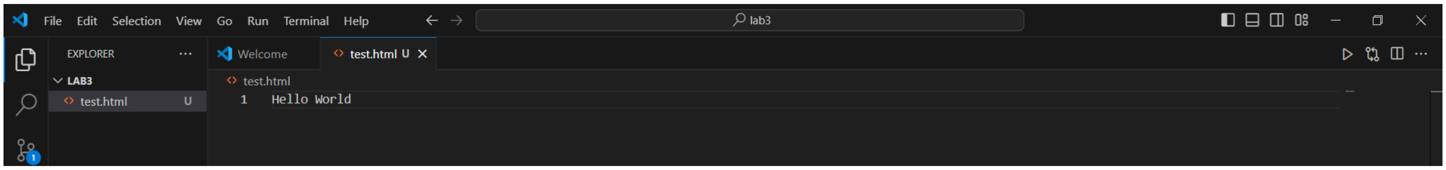
Choose a folder to clone https://github.com/tanhaanil/lab3.git into

Name	Date modified	Type	Size
ANSI V1	5/25/2023 9:07 AM	File folder	
Flutter Projects	3/9/2023 1:46 PM	File folder	
lab3	6/22/2024 6:20 PM	File folder	
tanha	6/22/2024 6:20 PM	File folder	

Folder: lab3

I will save it in lab3 folder.we will go the cloned repository in new window.

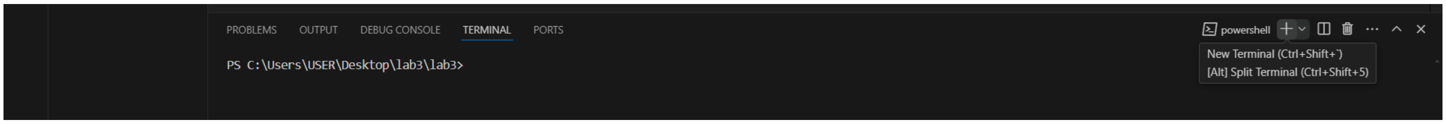
Initially I have no file so we will create a new file named test.html.



```
Hello World
```

To commit this file in repository, we have to configure git in my local.

Now To do this, we will go to terminal and choose the new terminal option or we can go to git bash option.

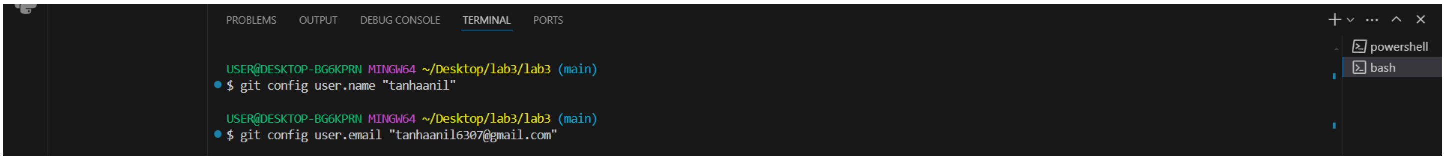


```
PS C:\Users\USER\Desktop\lab3\lab3>
```

New Terminal (Ctrl+Shift+`)

[Alt] Split Terminal (Ctrl+Shift+5)

We will go for gitbash right now.

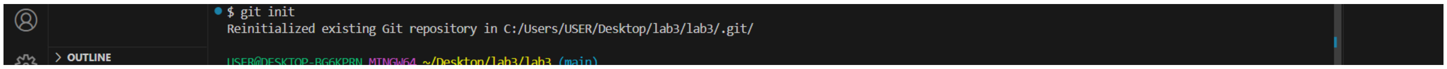


```
USER@DESKTOP-BG6KPRN MINGW64 ~/Desktop/lab3/lab3 (main)
$ git config user.name "tanhaanil"

USER@DESKTOP-BG6KPRN MINGW64 ~/Desktop/lab3/lab3 (main)
$ git config user.email "tanhaanil6307@gmail.com"
```

This way, we can locally set the configuration .after that, we can do commit and push without doing the configuration. Before committing, we had to use command git init,git add then we used git commit.

Git init:

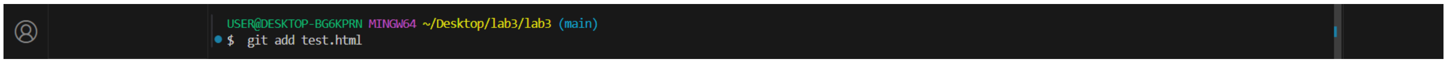
It initialises a Git repository in that directory.



```
$ git init
Reinitialized existing Git repository in C:/Users/USER/Desktop/lab3/lab3/.git/

USER@DESKTOP-BG6KPRN MINGW64 ~/Desktop/lab3/lab3 (main)
```

git add file_name:

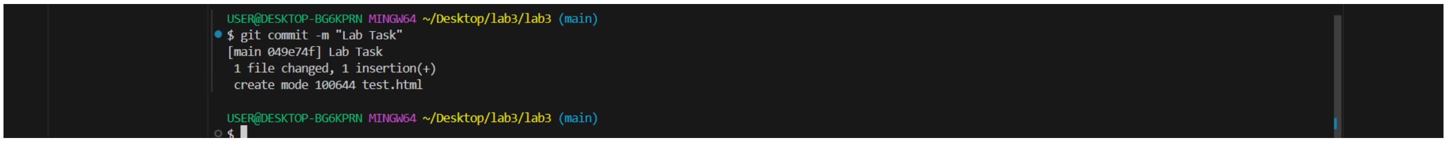
It adds changes to the specified file to the staging area to be committed



```
USER@DESKTOP-BG6KPRN MINGW64 ~/Desktop/lab3/lab3 (main)
$  git add test.html
```

Git commit:

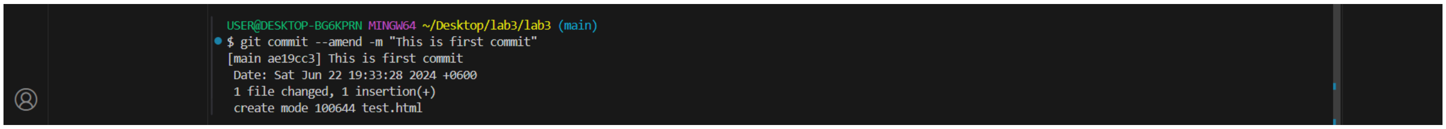
Commits staged changes and allows you to write a commit message



```
USER@DESKTOP-BG6KPRN MINGW64 ~/Desktop/lab3/lab3 (main)
$ git commit -m "Lab Task"
[main 049e74f] Lab Task
 1 file changed, 1 insertion(+)
 create mode 100644 test.html

USER@DESKTOP-BG6KPRN MINGW64 ~/Desktop/lab3/lab3 (main)
$ 
```

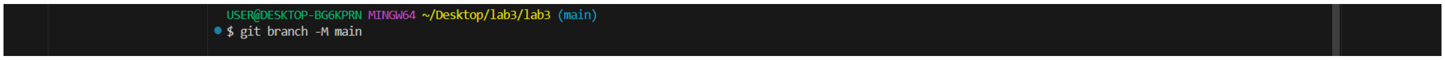
We wanted to change our commit message from lab task to this is first commit that's why used Git commit –amend command.

Git commit –amend –m"message":



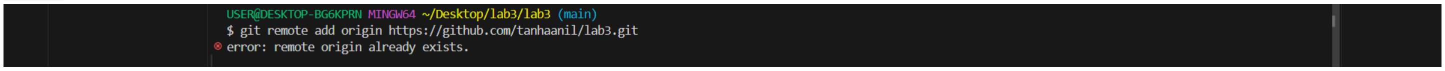
```
USER@DESKTOP-BG6KPRN MINGW64 ~/Desktop/lab3/lab3 (main)
$ git commit --amend -m "This is first commit"
[main ae19cc3] This is first commit
 Date: Sat Jun 22 19:33:28 2024 +0600
 1 file changed, 1 insertion(+)
 create mode 100644 test.html
```

Git branch:



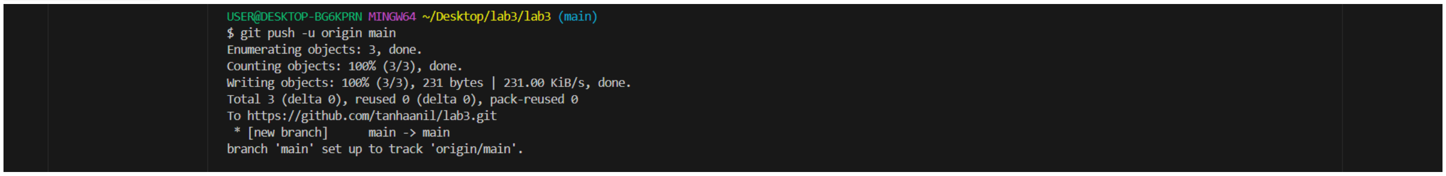
```
USER@DESKTOP-BG6KPRN MINGW64 ~/Desktop/lab3/lab3 (main)
$ git branch -M main
```

Git remote add origin URL: Links a local repository and an online repository at the specified URL



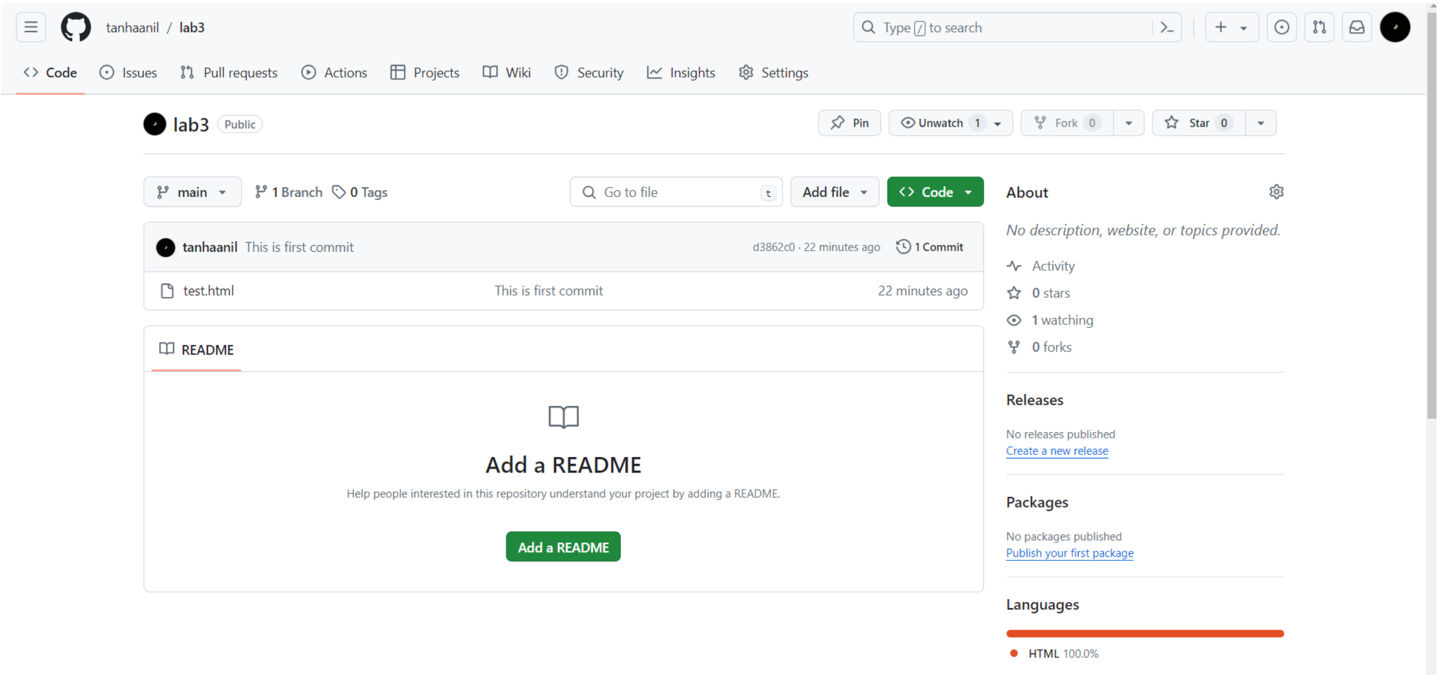
```
USER@DESKTOP-BG6KPRN MINGW64 ~/Desktop/lab3/lab3 (main)
$ git remote add origin https://github.com/tanhaanil/lab3.git
error: remote origin already exists.
```

git push origin branch_name: Pushes local changes to the specified branch of the online repository



```
USER@DESKTOP-BG6KPRN MINGW64 ~/Desktop/lab3/lab3 (main)
$ git push -u origin main
Enumerating objects: 3, done.
Counting objects: 100% (3/3), done.
Writing objects: 100% (3/3), 231 bytes | 231.00 KiB/s, done.
Total 3 (delta 0), reused 0 (delta 0), pack-reused 0
To https://github.com/tanhaanil/lab3.git
 * [new branch]      main -> main
branch 'main' set up to track 'origin/main'.
```

Now it has been pushed to our repository.all we have to restart out github and see if the file has been pushed or not.



tanhaanil This is first commit d3862c0 · 22 minutes ago 1 Commit

test.html This is first commit 22 minutes ago

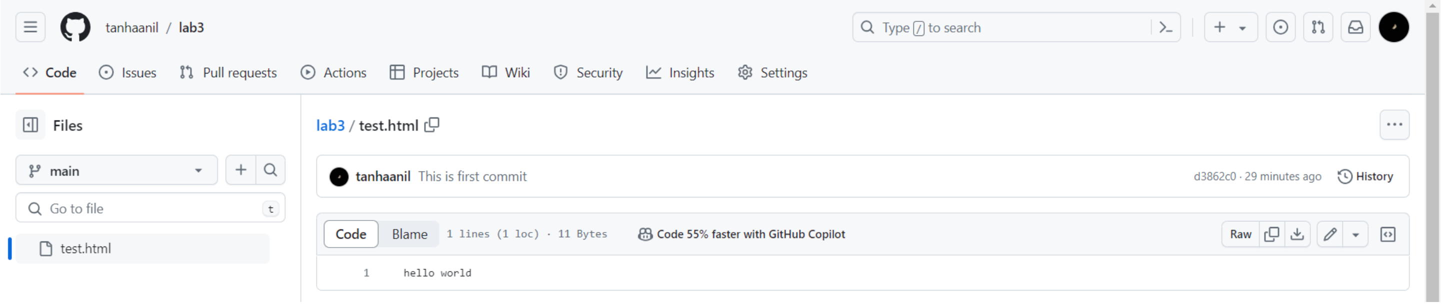
No description, website, or topics provided.

No releases published
Create a new release

No packages published
Publish your first package

Add a README

Help people interested in this repository understand your project by adding a README.

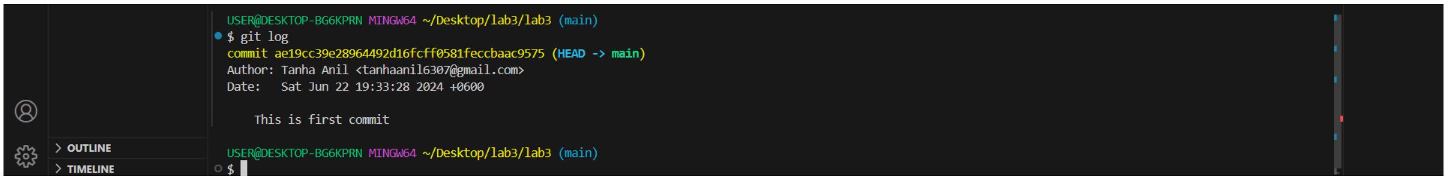


tanhaanil This is first commit d3862c0 · 29 minutes ago

1 lines (1 loc) · 11 Bytes

```
hello world
```

Git log:



```
USER@DESKTOP-BG6KPRN MINGW64 ~/Desktop/lab3/lab3 (main)
$ git log
commit ae19cc39e28964492d16fcff0581feccbaac9575 (HEAD -> main)
Author: Tanha Anil <tanhaanil6307@gmail.com>
Date:   Sat Jun 22 19:33:28 2024 +0600

    This is first commit

USER@DESKTOP-BG6KPRN MINGW64 ~/Desktop/lab3/lab3 (main)
$ 
```

It outputs a log of past commits with their commit messages.

Aside of these, there are more commands.So this is how we can learn git’s basic operations.

References:

(*Summary Table of Git Commands — The Turing Way*, n.d.)