

# **Assignment 1 - Requirements**

by TA Sam Wang

112-2

# About TA

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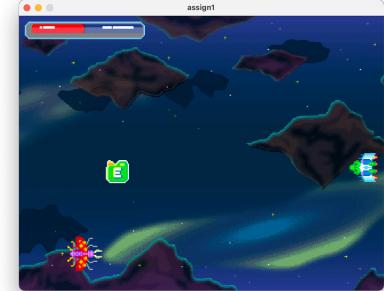
# Assignment 1 – part 1/2

- [Fork assignment here.](#)
- Commit your code directly to GitHub
- Due: 3/17 12 p.m.
- Grading rubric:
  - C: Completing all 1-star requirements.
  - B: Completing all 1-star and 2-star requirements.
  - A: Completing all requirements (1-star, 2-star, and 3-star)

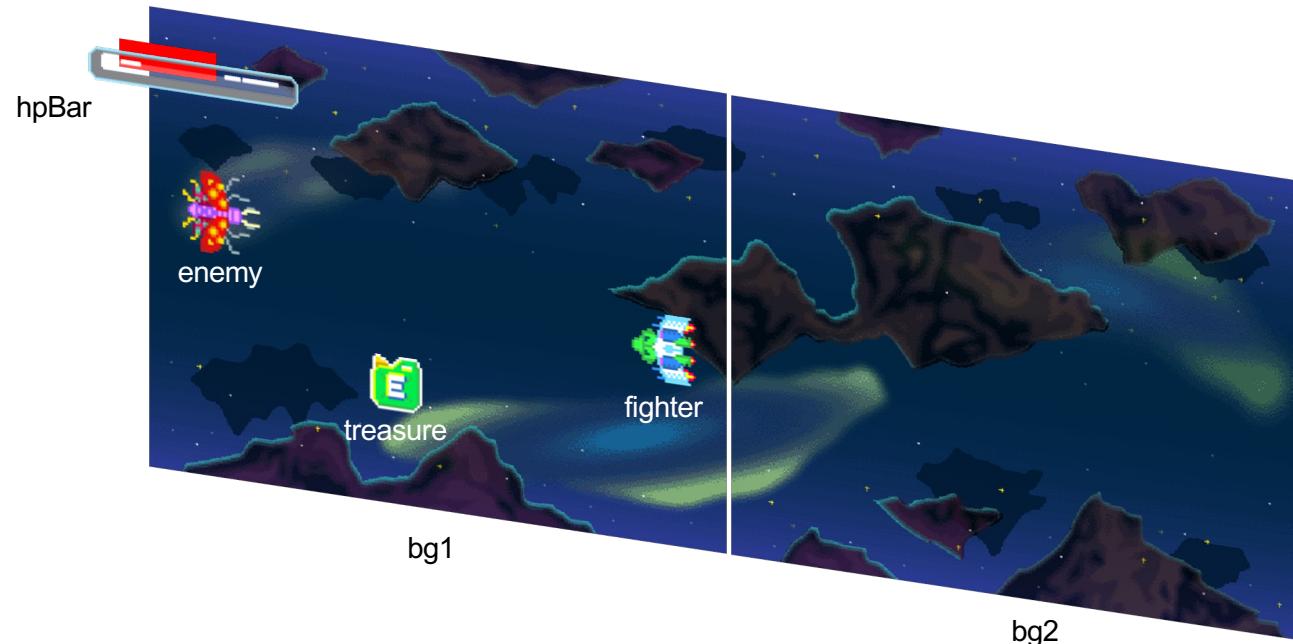


# Assignment 1 – part 2/2

- Requirements :
  - 1-star
    - Add a spaceship to the right-center of the screen.
    - Add a health bar to the left-top corner of the screen at position (10, 10).
    - Show the player's health using a red bar that fills up to 50%.
    - Add a treasure to a randomly generated position on the screen.
    - Add comments and label the code related to the requirements.
    - Variable names should be able to properly represent their meaning and be named using camelCase.
  - 2-star
    - Place an enemy aircraft that flies repeatedly from left to right.
    - After the enemy aircraft completely exits the right side of the screen, it restarts flying from the left side.
  - 3-star
    - Add a background and scroll it infinitely to the right



# Hint



\* Use the modulo operator to achieve the infinite scrolling effect

# **GitHub Tutorial**

by TA Sam Wang

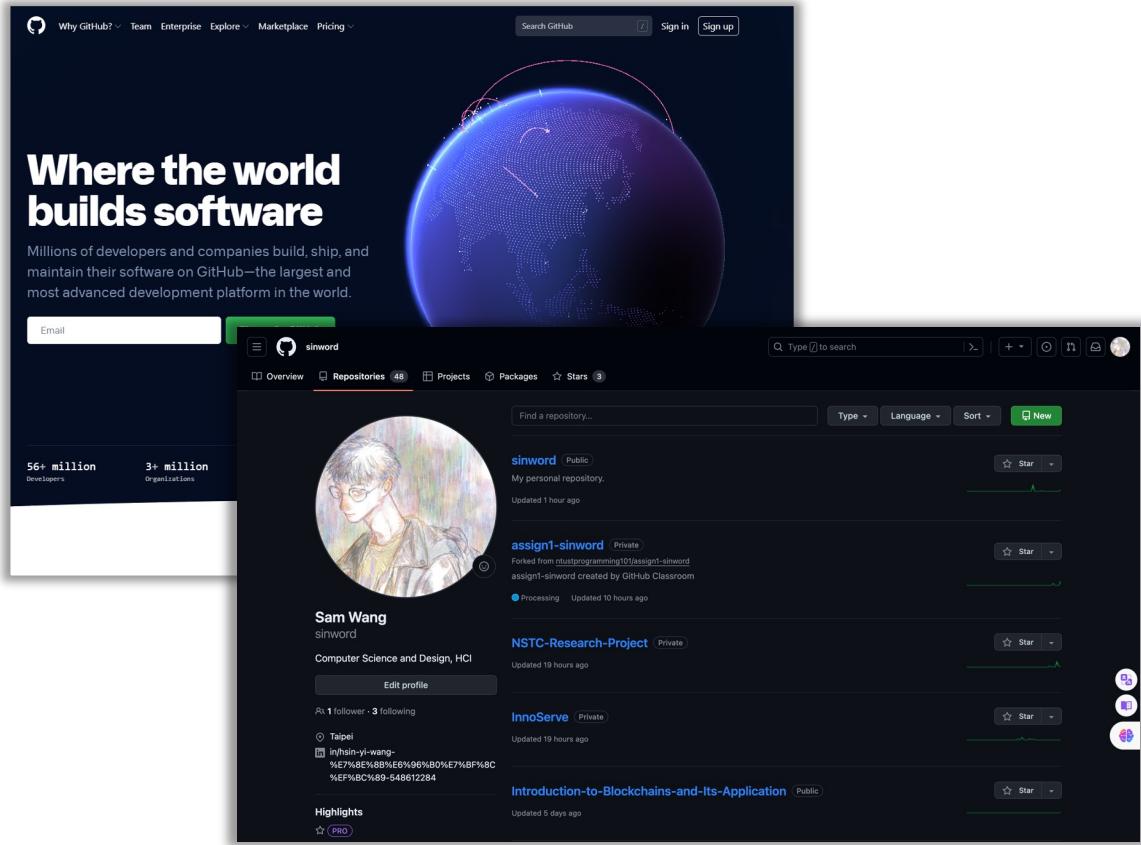
112-2

# What is GitHub ?

GitHub is a code hosting platform for...

- Version control
- Collaboration

It can be seen as Google Drive for code and development.



# Accept Assignment on GitHub (You have to register first)

- [Fork assignment here.](#)
- Commit your code directly to GitHub
- Due: 3/17 12 p.m.
- Grading rubric:
  - C: Completing all 1-star requirements.
  - B: Completing all 1-star and 2-star requiremen
  - A: Completing all requirements (1-star, 2-star,

creativecoding-2024

Accept the assignment —  
**assign1**

Once you accept this assignment, you will be granted access to the `assign1-sinword` repository in the [ntustprogramming101](#) organization on GitHub.

---

[Accept this assignment](#)

# Accept Assignment on GitHub



You accepted the assignment, **assign1**. We're configuring your repository now. This may take a few minutes to complete. Refresh this page to see updates.

Note: You may receive an email invitation to join [ntustprogramming101](#) on your behalf. No further action is necessary.

refresh  




You're ready to go!

You accepted the assignment, **assign1**.

Your assignment repository has been created:

 <https://github.com/ntustprogramming101/assign1-sinword-1>

We've configured the repository associated with this assignment ([update](#)).

Note: You may receive an email invitation to join [ntustprogramming101](#) on your behalf. No further action is necessary.

# Get Your Assignment Link!



You're ready to go!

You accepted the assignment, **assign1**.

Your assignment repository has been created:

<https://github.com/ntustprogramming101/assign1-sinword-1>

We've configured the repository associated with this assignment ([update](#)).

Note: You may receive an email invitation to join [ntustprogramming101](#) on your behalf. No further action is necessary.

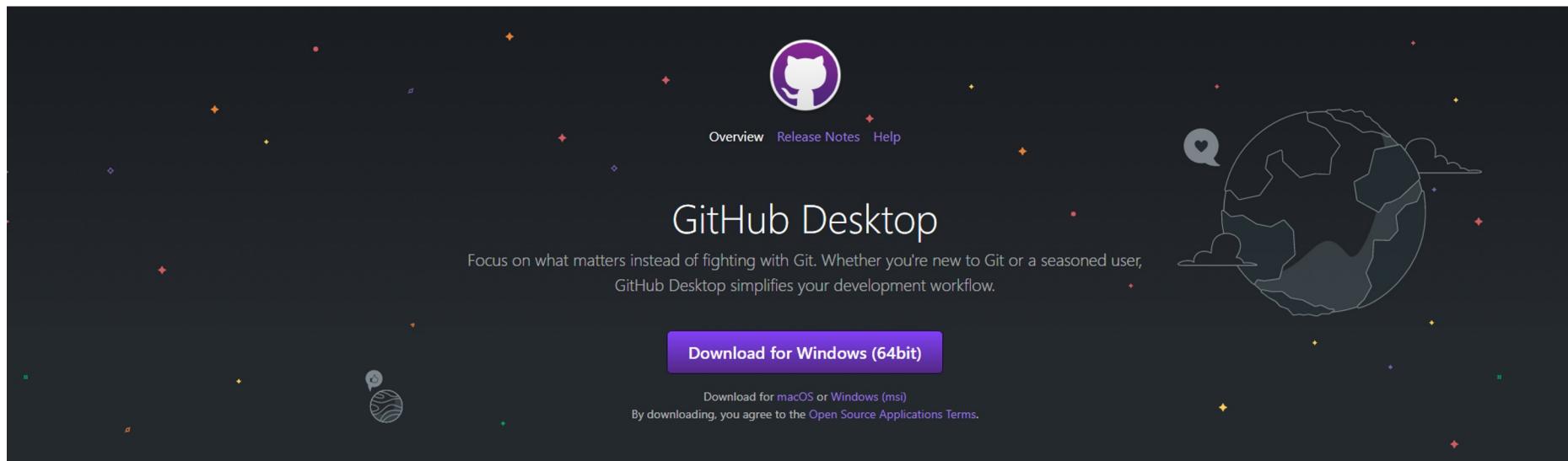
you can also find the link here

The screenshot shows a GitHub repository page for 'assign1-sinword'. At the top right, there's a green 'Code' button with a dropdown arrow pointing to it. A red box highlights this dropdown menu, which contains options for 'Local', 'Codespaces', 'Clone', 'HTTPS', 'SSH', and 'GitHub CLI'. The 'Clone' option is selected. Below the dropdown, there's a note about using a password-protected SSH key. Further down, there are links for 'Open with GitHub Desktop', 'Open with Visual Studio', and 'Download ZIP'. The right sidebar of the GitHub interface shows basic repository statistics like commits, forks, and watching status.

# Two Approaches to Edit Your Code on GitHub

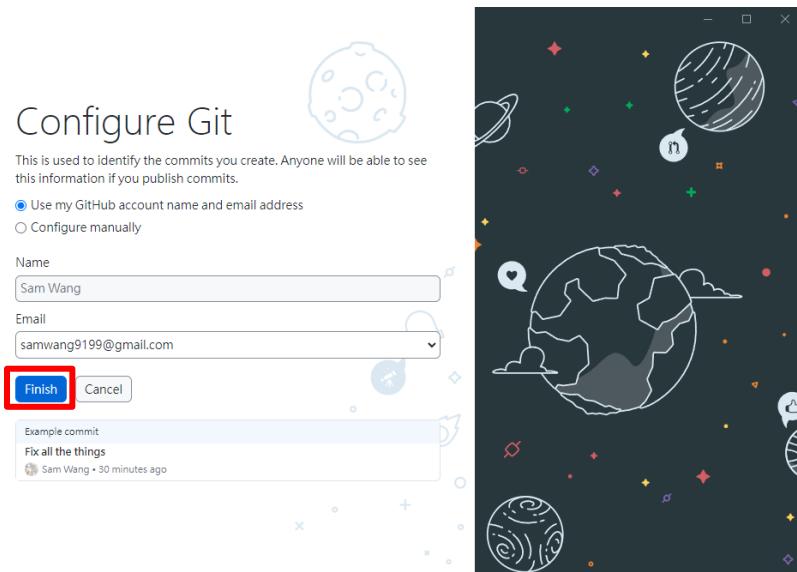
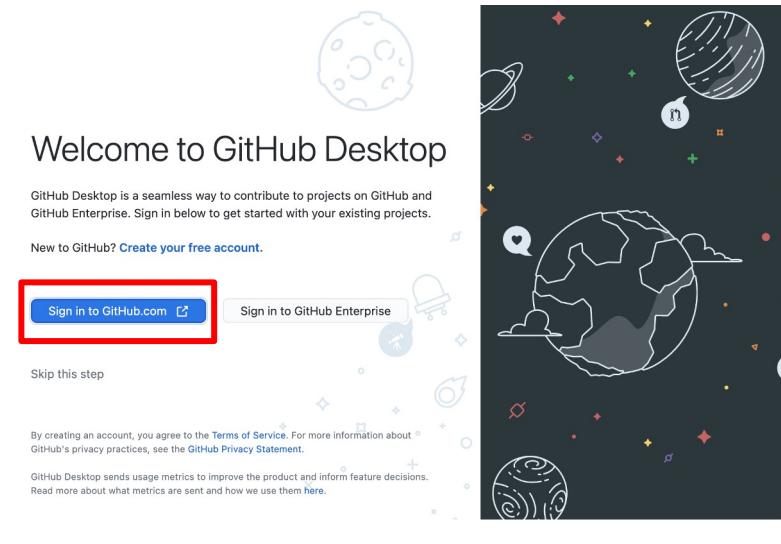


# Download GitHub Desktop

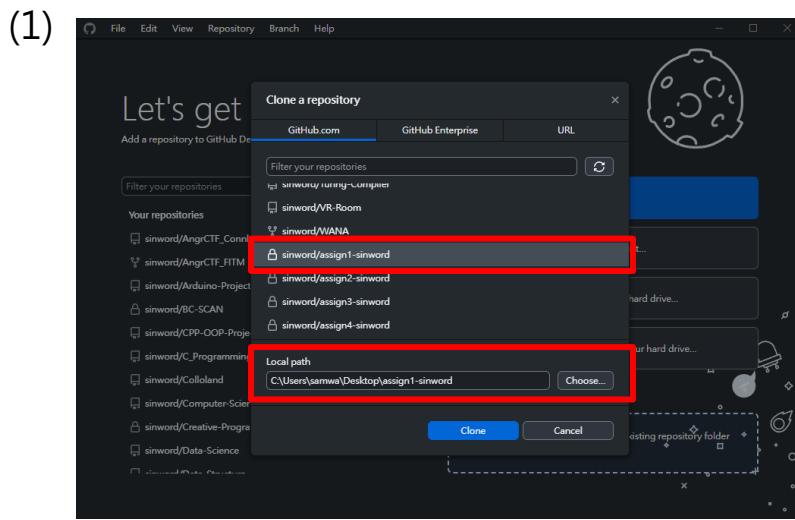
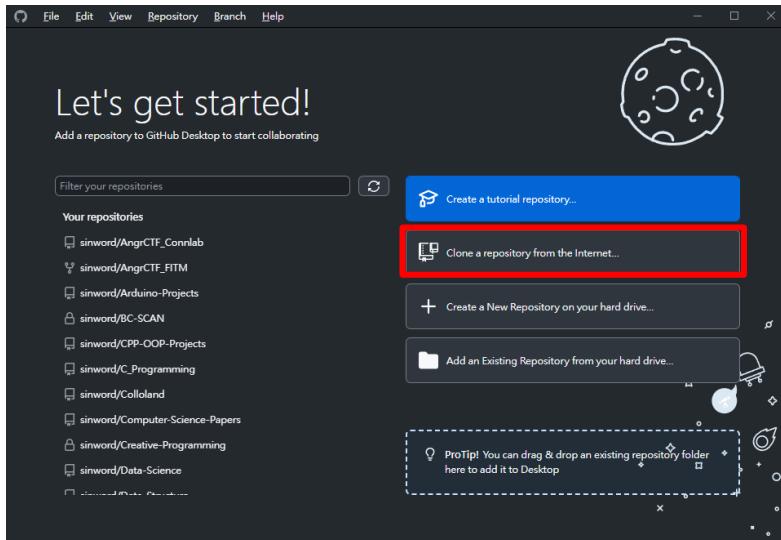


<https://desktop.github.com/>

# Install & Authenticate



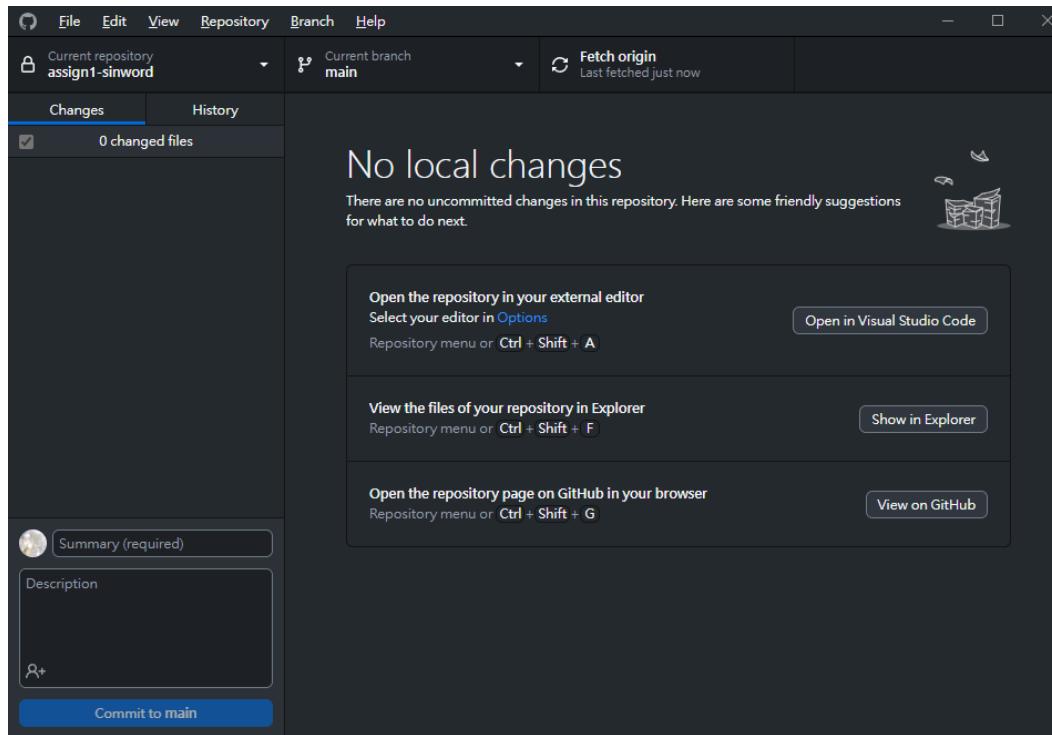
# How to Clone Your Project?



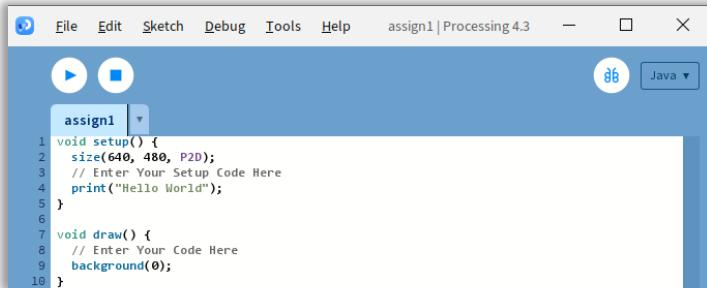
OR

This screenshot shows the "Clone a repository" dialog box again, but this time the "URL" tab is selected. In the "Repository URL or GitHub username and repository" field, the URL "https://github.com/ntustprogramming101/assign1-sinword.git" is entered. The "Local path" field contains "C:\Users\sinwma\Desktop\assign1-sinword". Below the dialog, there are three options: "Open with GitHub Desktop" (highlighted with a red box), "Open with Visual Studio", and "Download ZIP". At the bottom right are "Clone" and "Cancel" buttons.

# How to Clone Your Project?



# How to Edit in the GitHub Desktop?



The screenshot shows the Processing IDE interface. The title bar reads "assign1 | Processing 4.3". The menu bar includes File, Edit, Sketch, Debug, Tools, Help, and Java. The main code editor window contains the following PDE code:

```
void setup() {
  size(640, 480, P2D);
  // Enter Your Setup Code Here
  print("Hello World");
}

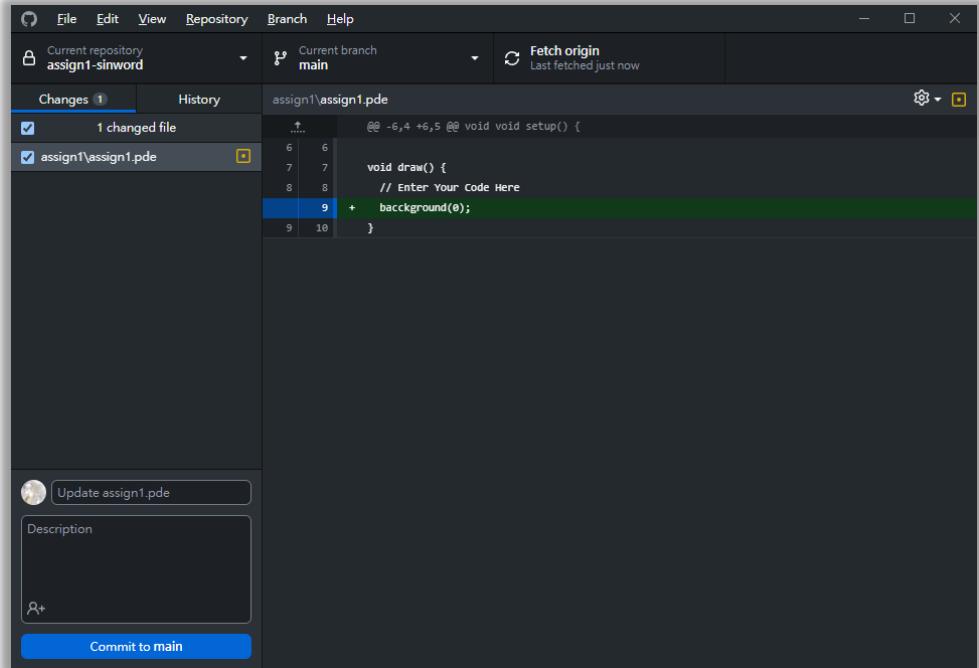
void draw() {
  // Enter Your Code Here
  background(0);
}
```



The screenshot shows the GitHub Desktop application. The commit history for the repository "assign1-sinword" on the "main" branch is displayed. A single file, "assign1\assign1.pde", has been changed. The commit message is "You, 5 seconds ago | 3 authors (You and others)". The code changes are as follows:

```
@@ -6,4 +6,5 @@
 void void setup() {
  size(640, 480, P2D);
  // Enter Your Setup Code Here
  print("Hello World");
}

void draw() {
  // Enter Your Code Here
  bacckground(0);
}
```



The screenshot shows the GitHub Desktop application with a commit dialog open. The current repository is "assign1-sinword" and the branch is "main". The commit message is "Update assign1.pde". The commit button is highlighted in blue.

Changes 1

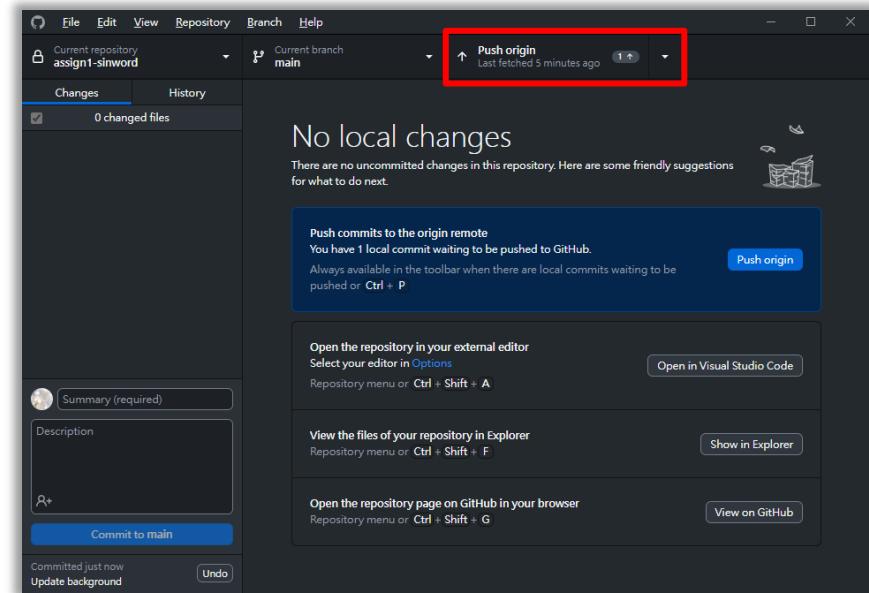
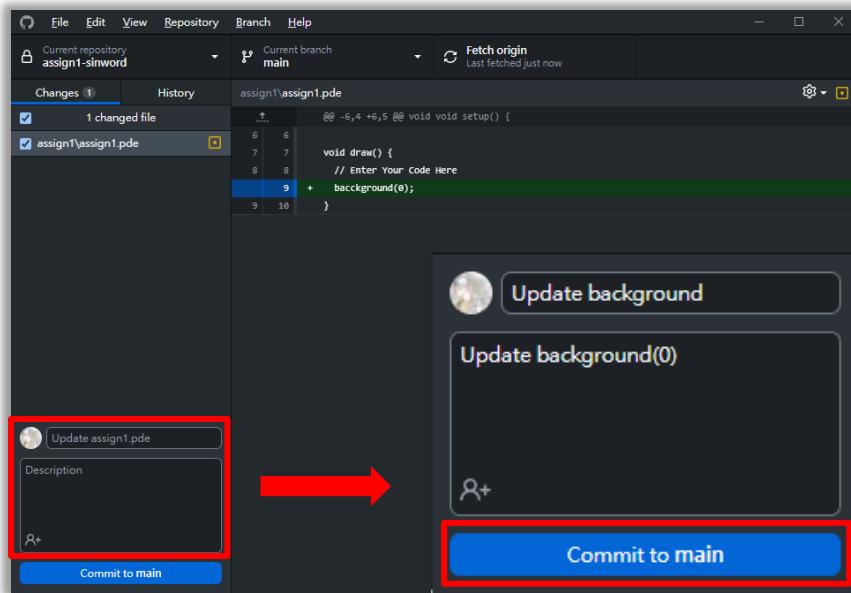
assign1\assign1.pde

```
@@ -6,4 +6,5 @@
 void void setup() {
  size(640, 480, P2D);
  // Enter Your Setup Code Here
  print("Hello World");
}

void draw() {
  // Enter Your Code Here
  bacckground(0);
}
```

Commit to main

# How to Upload My Code to GitHub?



# What if I Change My Mind? >> Version Control in GitHub

This screenshot shows the GitHub desktop application interface. The main window displays a list of commits for the repository 'assign1-sinword'. A context menu is open over the second commit, which has the message 'Update background'. The menu options include 'Amend commit...', 'Undo commit...', 'Checkout commit', 'Reorder commit', and 'Revert changes in commit'. The 'Revert changes in commit' option is highlighted with a red box.

This screenshot shows the GitHub desktop application after the 'Revert changes in commit' action was performed. The commit history now shows a new commit titled 'Revert "Update background"' with the message 'This reverts commit d09e58a4290adcf62ad337da54ade3532ae89b45.' The code editor shows the reverted changes, where the line '+ bacckground();' has been removed. The 'Push origin' button at the top right is also highlighted with a red box.

# What if I Change My Mind? >> Version Control in GitHub

The screenshot shows the GitHub Desktop application interface. The top menu bar includes File, Edit, View, Repository, Branch, and Help. The repository dropdown shows "Current repository: assign1-sinword". The branch dropdown shows "Current branch: main". A "Push origin" button is visible. Below the menu, there are tabs for "Changes" and "History", with "Changes" being the active tab. A sub-menu under "Changes" says "Select branch to compare...". A prominent message says "Revert 'Update background'". It states "This reverts commit d09e58a4290adcf62ad337da54ade3532ae89b45." Below this, a list of commits is shown:

- Revert "Update background" (sinword just now)
- Update background (sinword 5 minutes ago)
- Update assign1.pde (sinword 9 minutes ago)
- Update (sinword 8 hours ago)
- Update fighter's movement function (Yi0327 5 days ago)
- Complete (Yi0327 last month)
- add deadline (github-classroom[bot] last month)
- Initial commit (github-classroom[bot] last month)

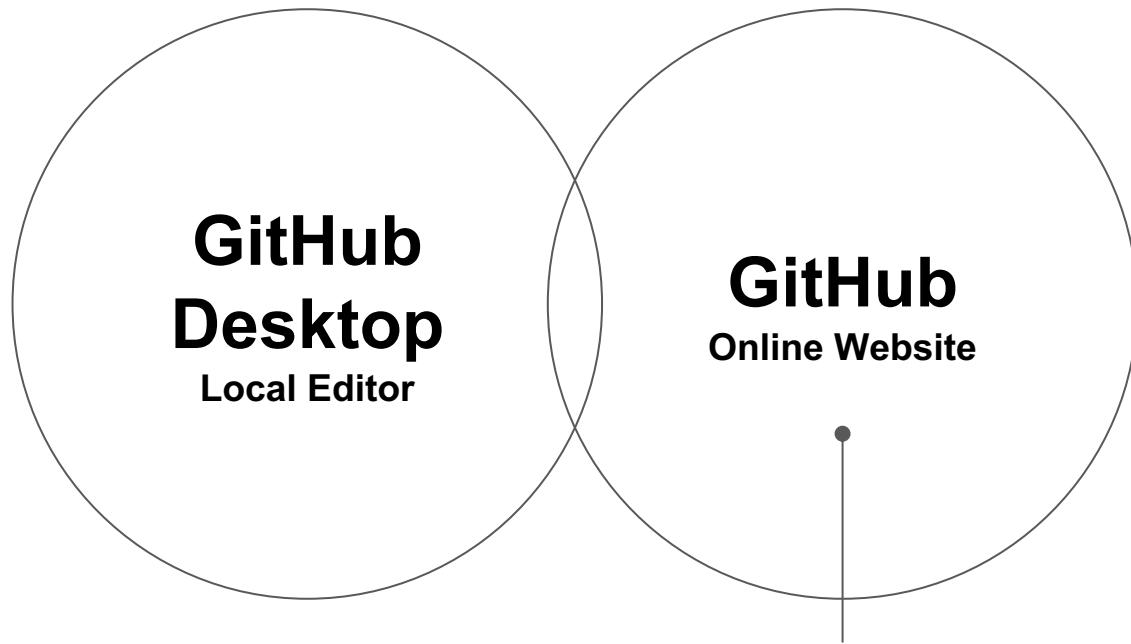
The main pane shows a file named "assign1\assign1.pde". The code editor displays the following PDE code:void void setup() {  
 size(640, 480, P2D);  
 // Enter Your Setup Code Here  
 background(0);  
}  
void draw() {  
 // Enter Your Code Here  
}

After  
Reverting



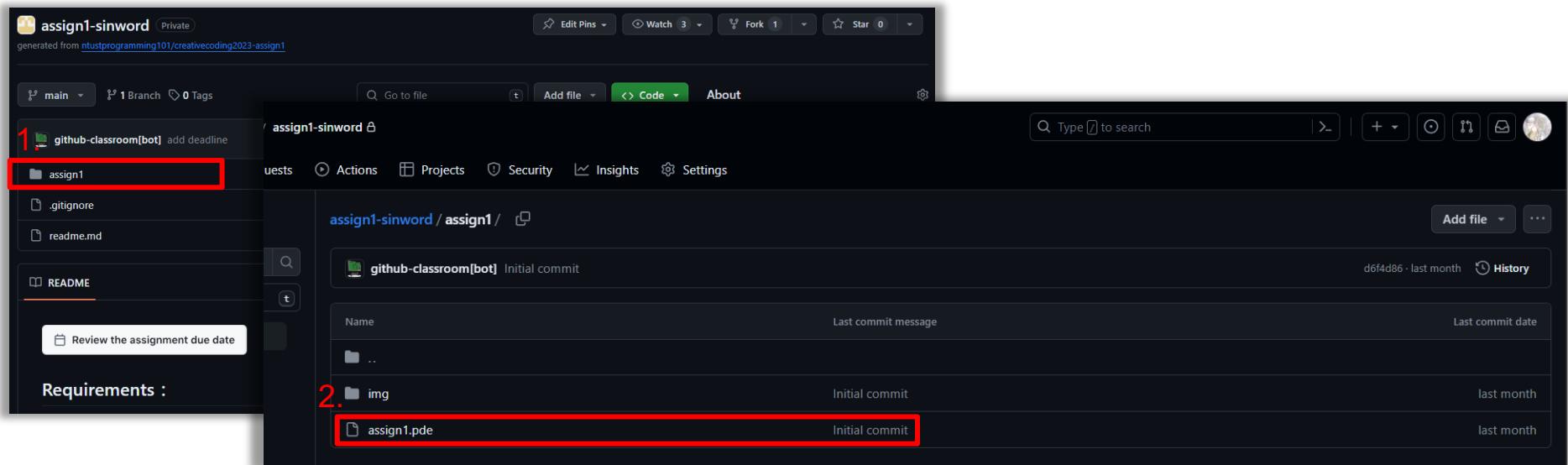
The screenshot shows a code editor window titled "assign1.pde". The code is identical to the one in the GitHub Desktop screenshot, but the line "background(0);" is highlighted with a red rectangle. The status bar at the bottom right indicates "You, 1 second ago | 3 authors (You and others)".

```
void void setup() {  
    size(640, 480, P2D);  
    // Enter Your Setup Code Here  
    print("Hello World");  
}  
void draw() {  
    // Enter Your Code Here  
}
```

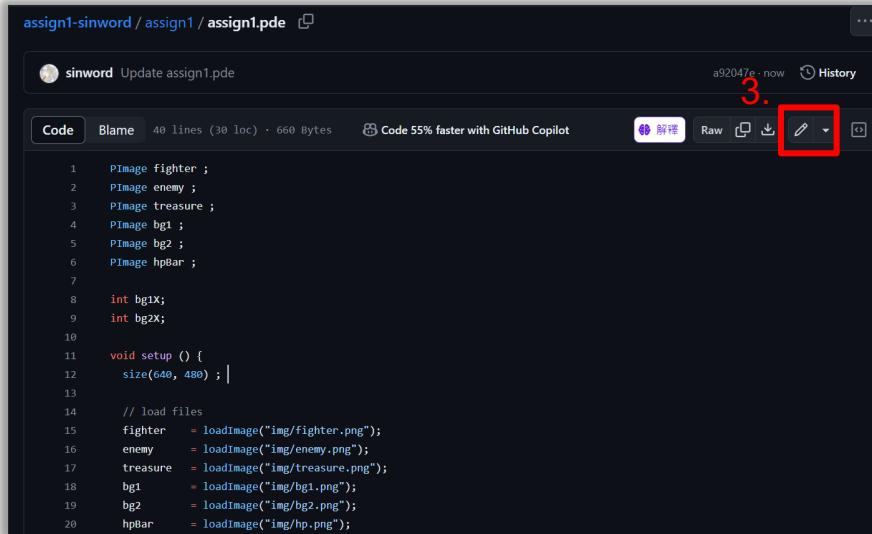


You can also edit directly online!

# Edit your code to the file directly on the GitHub website



# Edit Your Code Directly on the GitHub Website

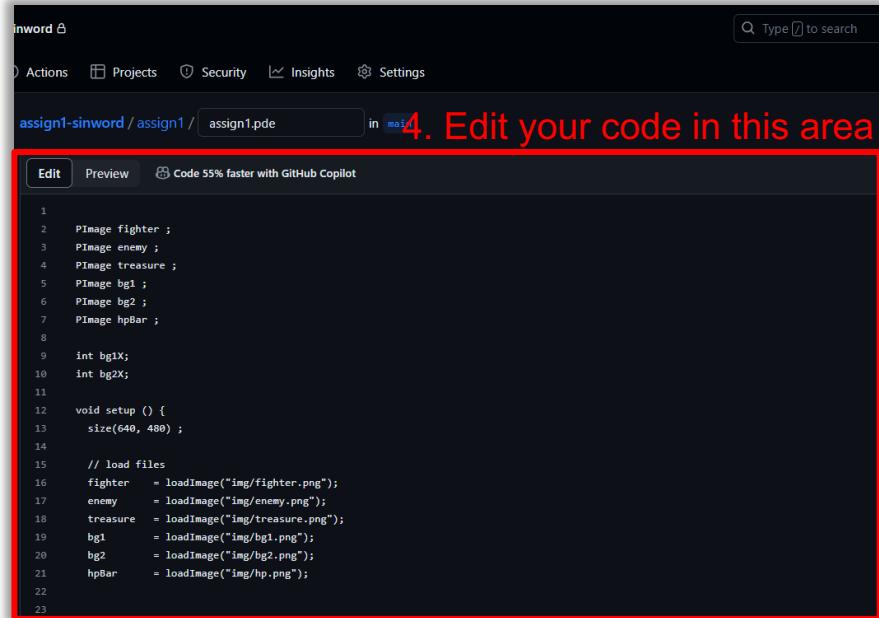


assign1-sinword / assign1 / assign1.pde

sinword Update assign1.pde a92047e · now History

Code Blame 40 lines (30 loc) · 660 Bytes Code 55% faster with GitHub Copilot

```
1 PImage fighter ;
2 PImage enemy ;
3 PImage treasure ;
4 PImage bg1 ;
5 PImage bg2 ;
6 PImage hpBar ;
7
8 int bg1X;
9 int bg2X;
10
11 void setup () {
12     size(640, 480) ;
13
14 // load files
15 fighter = loadImage("img/fighter.png");
16 enemy = loadImage("img/enemy.png");
17 treasure = loadImage("img/treasure.png");
18 bg1 = loadImage("img/bg1.png");
19 bg2 = loadImage("img/bg2.png");
20 hpBar = loadImage("img/hp.png");
```



inword

Actions Projects Security Insights Settings

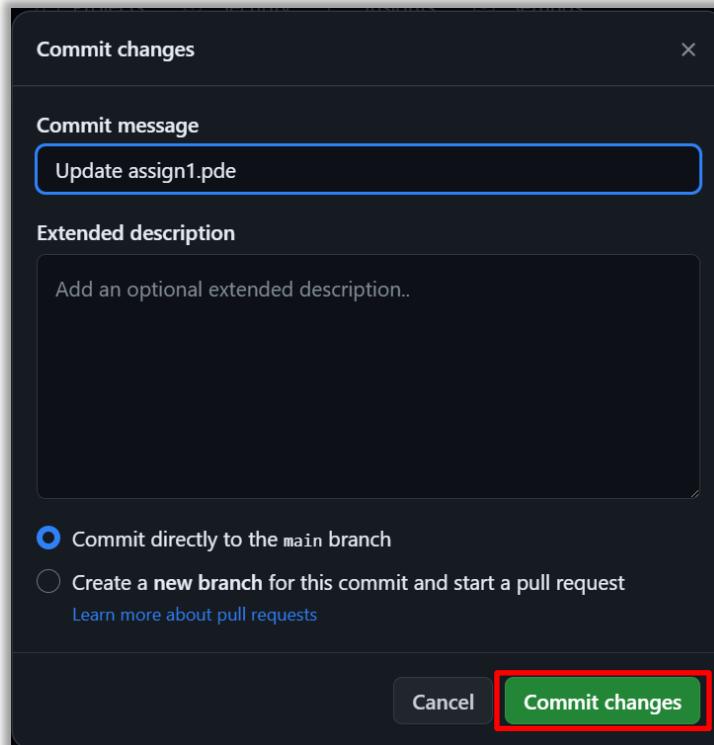
assign1-sinword / assign1 / assign1.pde in main

Edit Preview Code 55% faster with GitHub Copilot

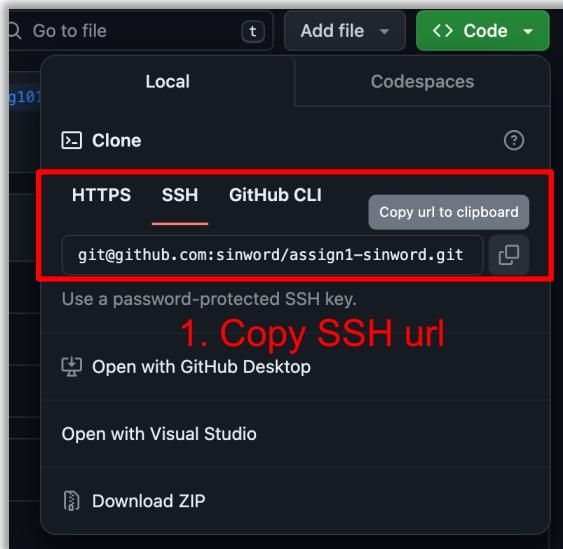
```
1
2 PImage fighter ;
3 PImage enemy ;
4 PImage treasure ;
5 PImage bg1 ;
6 PImage bg2 ;
7 PImage hpBar ;
8
9 int bg1X;
10 int bg2X;
11
12 void setup () {
13     size(640, 480) ;
14
15 // load files
16 fighter = loadImage("img/fighter.png");
17 enemy = loadImage("img/enemy.png");
18 treasure = loadImage("img/treasure.png");
19 bg1 = loadImage("img/bg1.png");
20 bg2 = loadImage("img/bg2.png");
21 hpBar = loadImage("img/hp.png");
22
23
```

4. Edit your code in this area

# Remember to Create Comment and Commit Changes



# My Approach

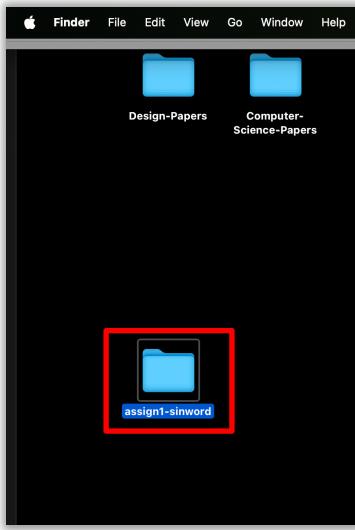


A screenshot of a terminal window titled 'Desktop -- zsh'. The command 'git clone git@github.com:sinword/assign1-sinword.git' is being run. The terminal output shows the process of cloning the repository, including object enumeration, compression, and receiving objects. The entire command line and its output are highlighted with a red box.

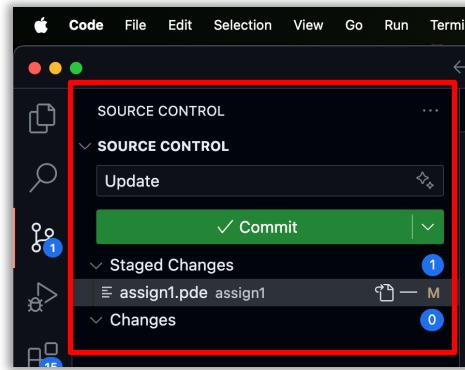
```
hsinyi@xinyiwangdeMacBook-Air Desktop % git clone git@github.com:sinword/assign1-sinword.git
Cloning into 'assign1-sinword'...
remote: Enumerating objects: 39, done.
remote: Counting objects: 100% (39/39), done.
remote: Compressing objects: 100% (34/34), done.
remote: Total 39 (delta 9), reused 30 (delta 4), pack-reused 0
Receiving objects: 100% (39/39), 152.09 KiB | 932.00 KiB/s, done.
Resolving deltas: 100% (9/9), done.
hsinyi@xinyiwangdeMacBook-Air Desktop %
```

2. Enter command in terminal  
git clone "url"

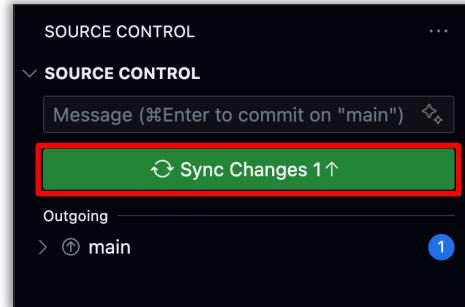
# My Approach



3. The folder shows under the directory



4. Write down the commit message in VSCode and click "Commit"



5. Click "Sync Change"

# Check Your Commits

The screenshot shows a GitHub Desktop interface for a repository named 'assign1-sinword'. The repository is private and forked from 'ntustprogramming101/assign1-sinword'. The main branch has 1 commit behind the upstream 'main' branch. A red box highlights the '10 Commits' link in the commit history section.

This branch is 8 commits ahead of, 1 commit behind [ntustprogramming101/assign1-sinword:main](#).

Contribute Sync fork

sinword Update 8a4aedc · 18 minutes ago

assign1 Update 18 minutes ago

.gitignore Initial commit last month

readme.md add deadline last month

README

Review the assignment due date

Requirements :

1-star

The screenshot shows the GitHub web interface for the same repository. The commit history is displayed in a tree view:

- Commits on Mar 3, 2024
  - Update (sinword committed 9 hours ago)
  - Complete (sinword committed yesterday)
  - Revert "Update background" (sinword committed yesterday)
  - Update background (sinword committed yesterday)
  - Update assign1.pde (sinword committed yesterday)
- Commits on Mar 2, 2024
  - Update (sinword committed yesterday)
- Commits on Feb 26, 2024
  - Update fighter's movement function (sinword committed last week)

History commit will be shown here  
Or check on GitHub Desktop

# About AI...

- They are great teachers for beginner!
- It can be used in learning, coding, translating, and more.
- **Do not rely too heavily on AI, or someday you may find yourself replaced by it.**



# Reference

1. Get started with Github (Official document): <https://dorcs.github.com/en/get-started/quickstart/hello-world>
2. How to use Github Desktop (Chinese) : <https://progressbar.tw/posts/49>
3. 連猴子都能懂的git入門指南 : <https://backlog.com/git-tutorial/tw>