




# HW1


蔣其叡 111356024@nccu.edu.tw  
陳卉縈 112356043@nccu.edu.tw



# Lab Notice

- This semester, the lab class will start at 12:10 p.m. on Monday, and the class will start on time and won't wait for those who are late.
  - Won't roll call on lab class.
-

# Rules of Homework

- Project Name: **HW{number of homework\_ID number}** , ex: HW1\_111306XXX
- Please don't name the file like:  HW{number of homework\_ID number}.rar
- The class name where the **main function** of the code is located must be **Main**
- Remind uppercase and lowercase
- When the code is compressed and uploaded, please compress the project folder (ex: HW1\_111306XXX) into .zip(or .rar)
- Unless otherwise specified by TA, homework that cannot be compiled and executed won't be accepted.

# Rules of Homework

- Before the Lab class, we will upload sample code and slides on GitHub. Please follow the sample code we gave you to complete your homework.
- We will open the WM5 hand-in section before Lab class; the deadline usually is the midnight of the next TA class. The date may be different from the date on the teacher's slide.
- If you miss the deadline, your late homework can be made up before the end of the semester in the make-up section of WM5. But can only get 80% score for late submit.

(This make-up section will open near the end of the semester.)

---

# Rules of Homework

- Reject the homework of plagiarism and tampering
  - First time: Zero point for that homework.
  - Second time: Zero point for the entire semester's homework.
  - The list of plagiarism and tampering will be announced at the end of the semester.
-

# Rules of Homework

- First time

In your computer's folder (where you want to store it), use the command below :

*cd (your folder path)*

*git init*

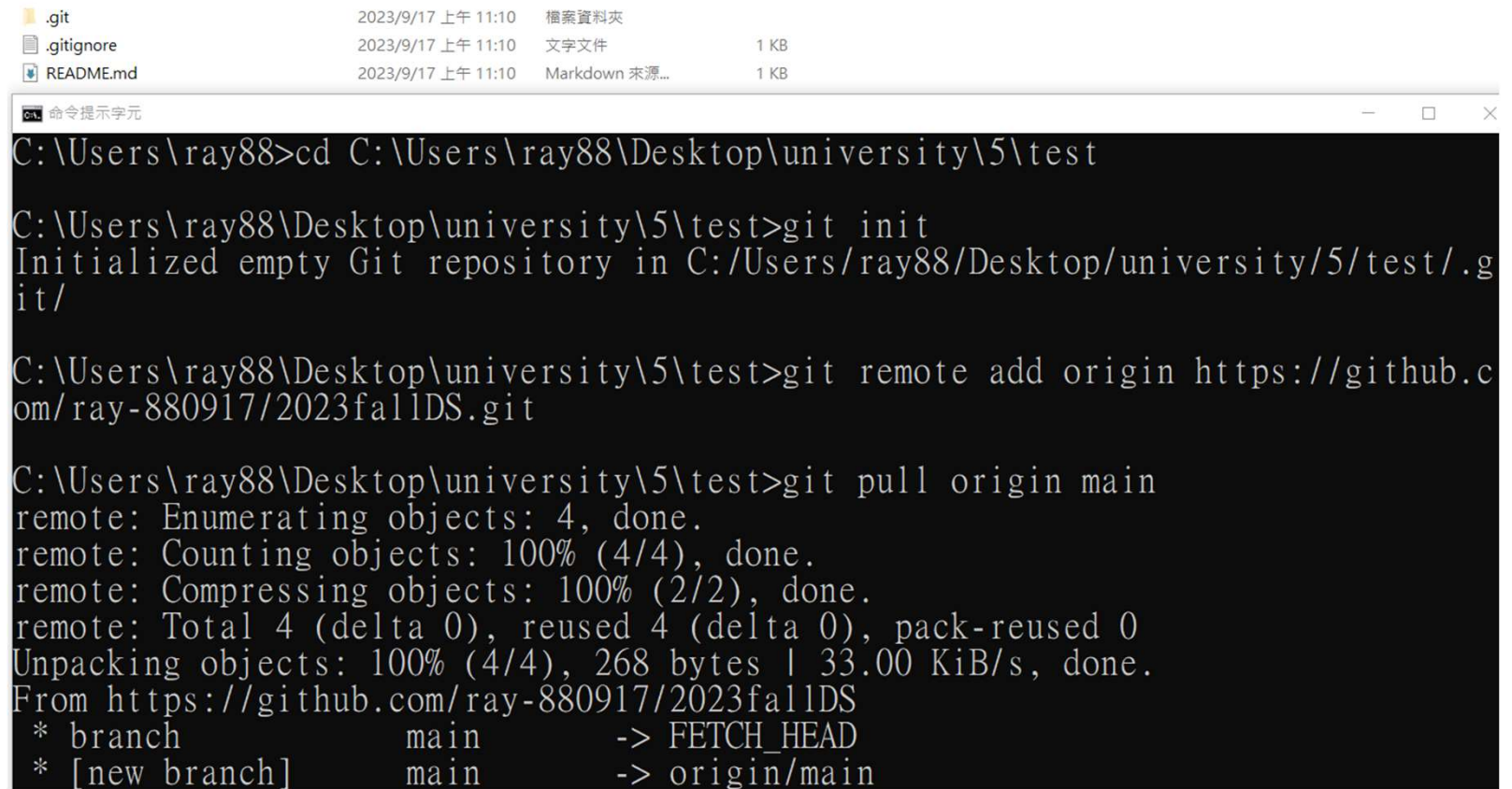
*git remote add origin <https://github.com/ray-880917/2023fallDS.git>*

*git pull origin main*

---

# Download HW

- First time



The screenshot shows a Windows File Explorer window at the top with the following files:

File Name	Date/Time	Type	Size
.git	2023/9/17 上午 11:10	檔案資料夾	
.gitignore	2023/9/17 上午 11:10	文字文件	1 KB
README.md	2023/9/17 上午 11:10	Markdown 來源...	1 KB

Below the File Explorer is a Command Prompt window titled "命令提示字元". The commands and output are as follows:

```
C:\Users\ray88>cd C:\Users\ray88\Desktop\university\5\test

C:\Users\ray88\Desktop\university\5\test>git init
Initialized empty Git repository in C:/Users/ray88/Desktop/university/5/test/.git/

C:\Users\ray88\Desktop\university\5\test>git remote add origin https://github.com/ray-880917/2023fallDS.git

C:\Users\ray88\Desktop\university\5\test>git pull origin main
remote: Enumerating objects: 4, done.
remote: Counting objects: 100% (4/4), done.
remote: Compressing objects: 100% (2/2), done.
remote: Total 4 (delta 0), reused 4 (delta 0), pack-reused 0
Unpacking objects: 100% (4/4), 268 bytes | 33.00 KiB/s, done.
From https://github.com/ray-880917/2023fallDS
* branch          main          -> FETCH_HEAD
* [new branch]    main          -> origin/main
```

# Download HW

- Next time

In your computer's folder, use the command below :

```
cd (your folder path)
```

```
git pull origin main
```

then you can refresh the data weekly  
to download HW from GitHub.



# HW1

## Homework 1 (Due on 9/21)

- BMI Calculator:
  - $BMI = ( \text{Weight in Kilograms} / ( \text{Height in Meters} \times \text{Height in Meters} ) )$
- Enter Height and Weight, return BMI and
  - “You are not in shape. Actually, you are not even close.” if  $BMI \geq 30$
  - “To be honest, you are not in shape.” if  $30 > BMI \geq 26$
  - “You are in shape” if  $26 > BMI \geq 20$
  - “You are under shape” if  $20 > BMI$
- Use Eclipse to write/execute/debug your java code
- Upload your code using WM5 (**no** direct copy accepted)
- TAs will show you “clear” hints to do so on Monday’s lab (Sep. 19)

# Input/Output example

```
Please enter your weight(kg) and height(cm): 70 150  
You are not in shape. Actually, you are not even close. BMI: 31.11111111111111
```

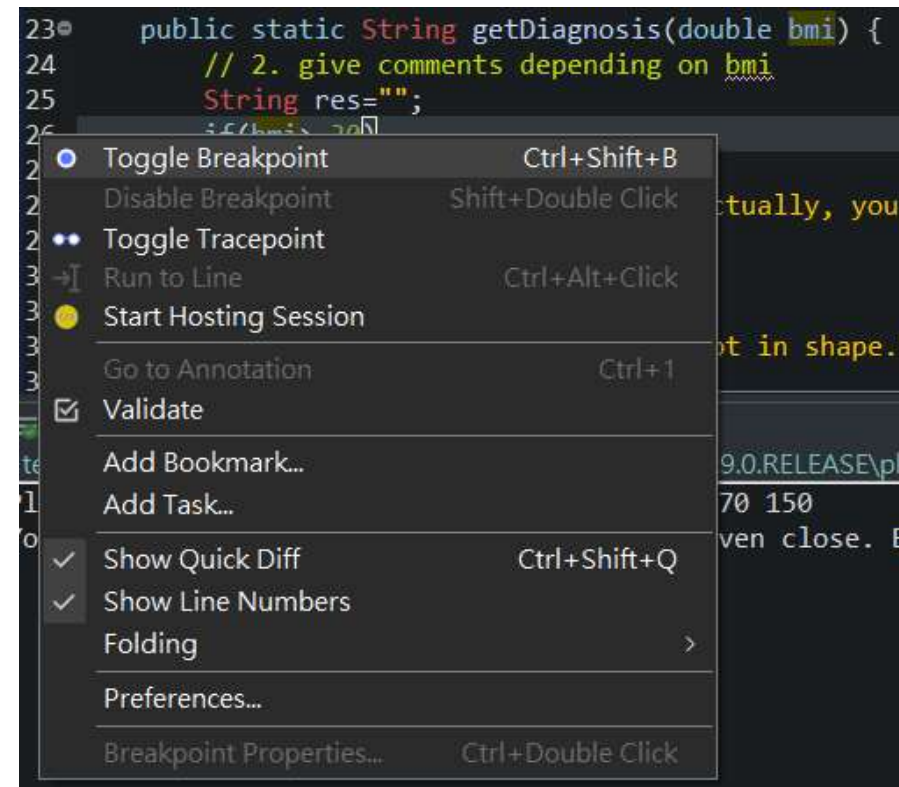
```
Please enter your weight(kg) and height(cm): 60 150  
To be honest, you are not in shape. BMI: 26.666666666666668
```

```
Please enter your weight(kg) and height(cm): 60 160  
You are in shape. BMI: 23.4375
```

```
Please enter your weight(kg) and height(cm): 55 172  
You are under shape BMI: 18.591130340724717
```

# Debug mode

- Setting the Toggle Breakpoint
  1. Right-click the line which you want to trace
  2. Click the Toggle Breakpoint



# Debug mode

- Run on Debug mode

The screenshot shows the Eclipse IDE in Debug mode. The main editor displays the source code of `Main.java` with a breakpoint at line 11. The left sidebar shows the Project Explorer and the Debug Console. The right sidebar shows the Variables view, which lists the current state of the program's variables.

**Show which thread of which line**

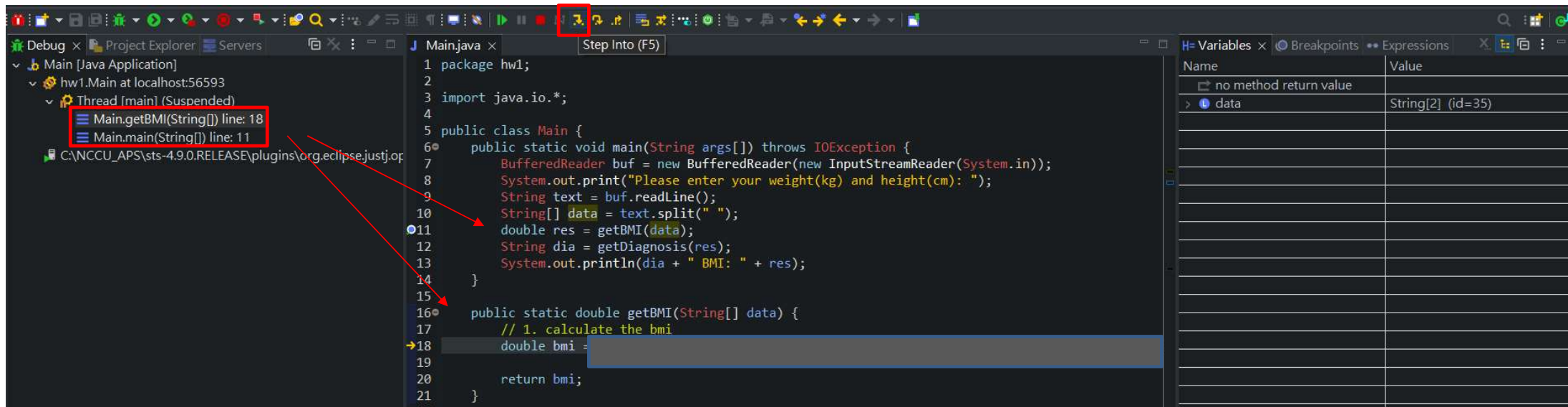
**Show the value of Variables**

```
1 package hw1;
2
3 import java.io.*;
4
5 public class Main {
6     public static void main(String args[]) throws IOException {
7         BufferedReader buf = new BufferedReader(new InputStreamReader(System.in));
8         System.out.print("Please enter your weight(kg) and height(cm): ");
9         String text = buf.readLine();
10        String[] data = text.split(" ");
11        double res = getBMI(data);
12    }
13 }
```

Name	Value
no method return value	
args	String[0] (id=20)
buf	BufferedReader (id=22)
text	"55 172" (id=29)
data	String[2] (id=35)

# Debug mode

Next step(timing) of program executing



More detail

<https://help.eclipse.org/latest/index.jsp?topic=%2Forg.eclipse.jdt.doc.user%2FgettingStarted%2Fqs-13.htm>

# Hand-in HW1

- Via WM5: Already in this course.
- Via Email: Waiting for adding course by teacher.

Send Email to TA 陳卉縈 [112356043@nccu.edu.tw](mailto:112356043@nccu.edu.tw)

- Deadline 9/25(Mon) 23:59
-

# Term project

- The term project needs to be completed by groups consisting of 3 to 5 people.
- Please submit your group list by the end of September (9/30 sat).
- Send Group list via Google form!
  - <https://forms.gle/UqNk4FBvaEjN7Dt89>