



HW1

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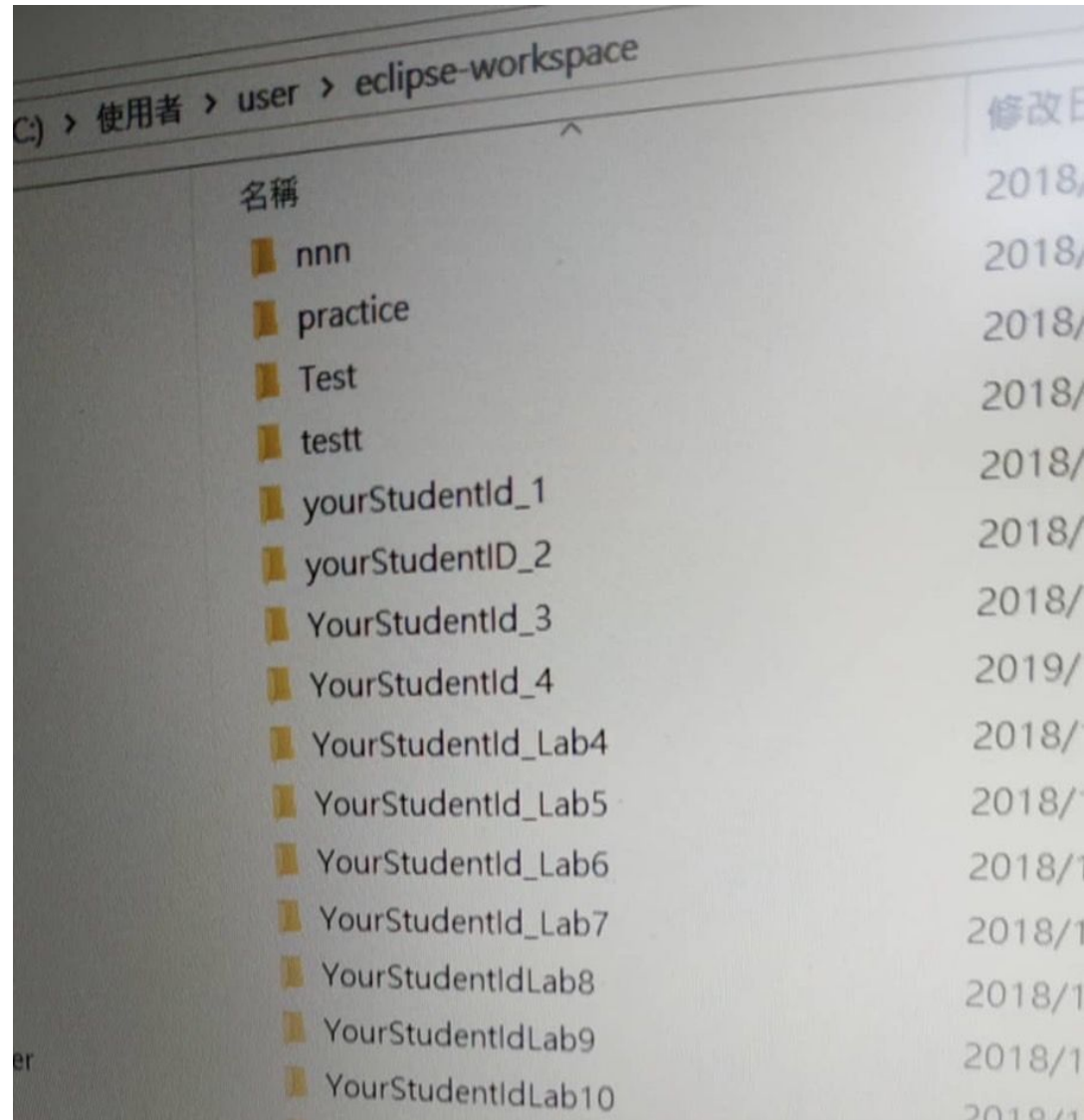
Lab Notice

- 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_112306XXX
- 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_112306XXX) into .zip(or .rar)
- Unless otherwise specified by TA, homework that cannot be compiled and executed won't be accepted.

A True Story



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 Moodle 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 Moodle. 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)
```

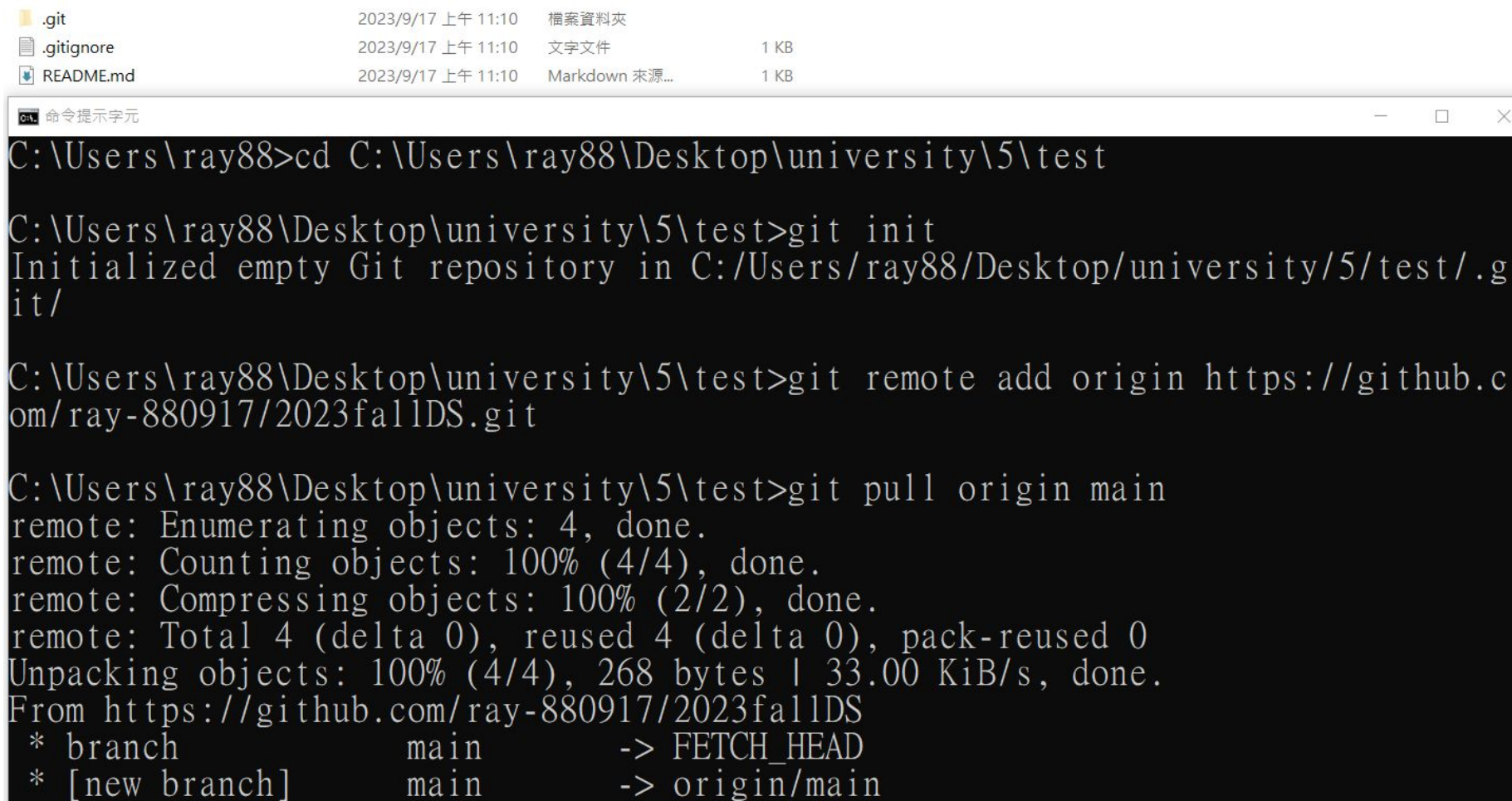
```
git init
```

```
git remote add origin https://github.com/pen9rum/2024fallIDS-HW.git
```

```
git pull origin main
```

Download HW

- First time



The image shows a Windows file explorer window at the top with the following contents:

File Name	Date and 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 Windows command prompt window titled "命令提示字元". The commands and their outputs 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
```

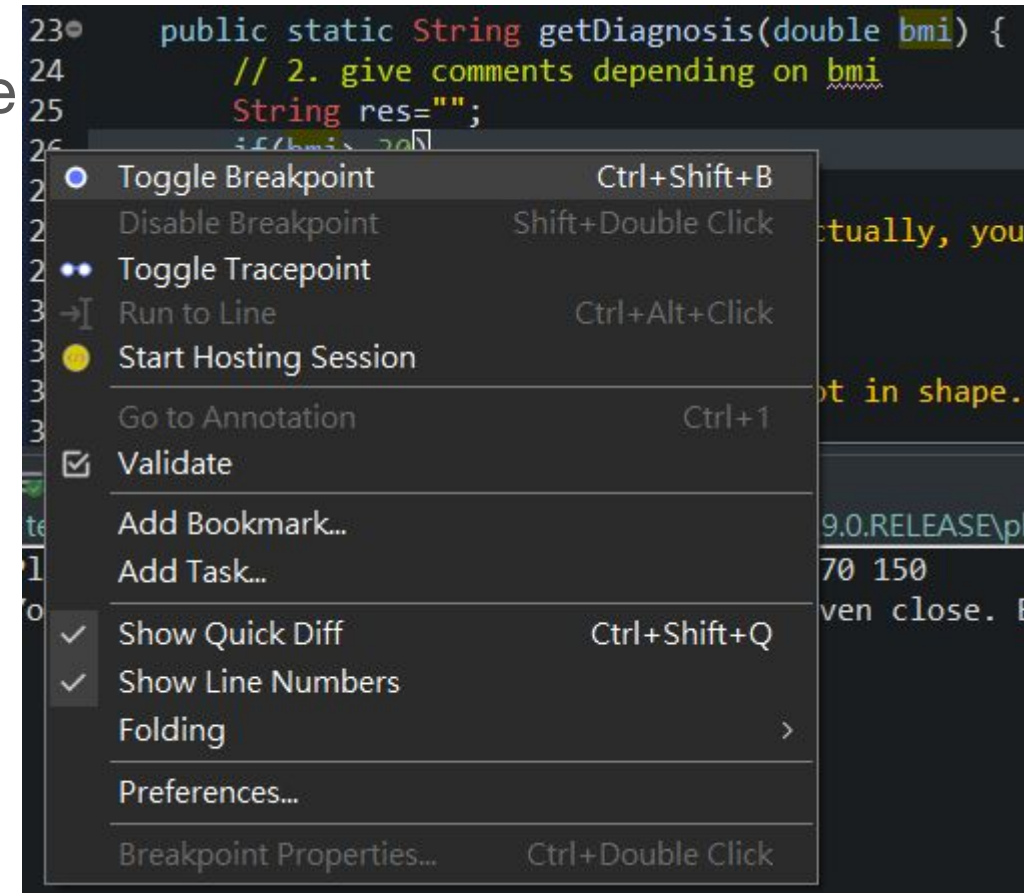
```
Please enter your weight(kg) and height(cm): 60 150  
To be honest, you are not in shape. BMI: 26.666666666666668
```

```
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 Project Explorer on the left shows the 'Main' Java application with a breakpoint at line 11 in 'Main.main(String[])'. The Main.java editor in the center shows the following code:

```
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 }
```

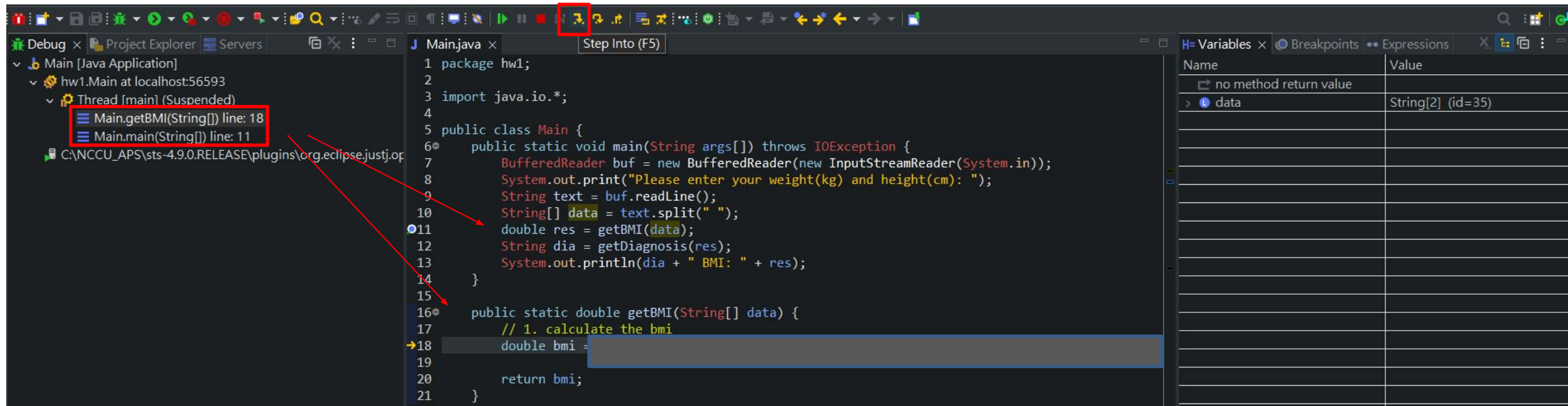
Red annotations highlight the thread information and variable values:

- Show which thread of which line:** Points to the 'Thread [main] (Suspended (breakpoint at line 11 in Main))' in the Project Explorer.
- Show the value of Variables:** Points to the 'Variables' view on the right, which displays the following data:

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

Send Email to TA 陳卉縈 112356043@nccu.edu.tw

- Deadline 9/19(THU) 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 mon).
- Send Group list via Google form!
 - https://docs.google.com/forms/d/1PykIHH7ztTA1COG9TKpcD_4qh8ZJWDmMJWdsCtjCMml/edit?hl=zh-tw