



HW1

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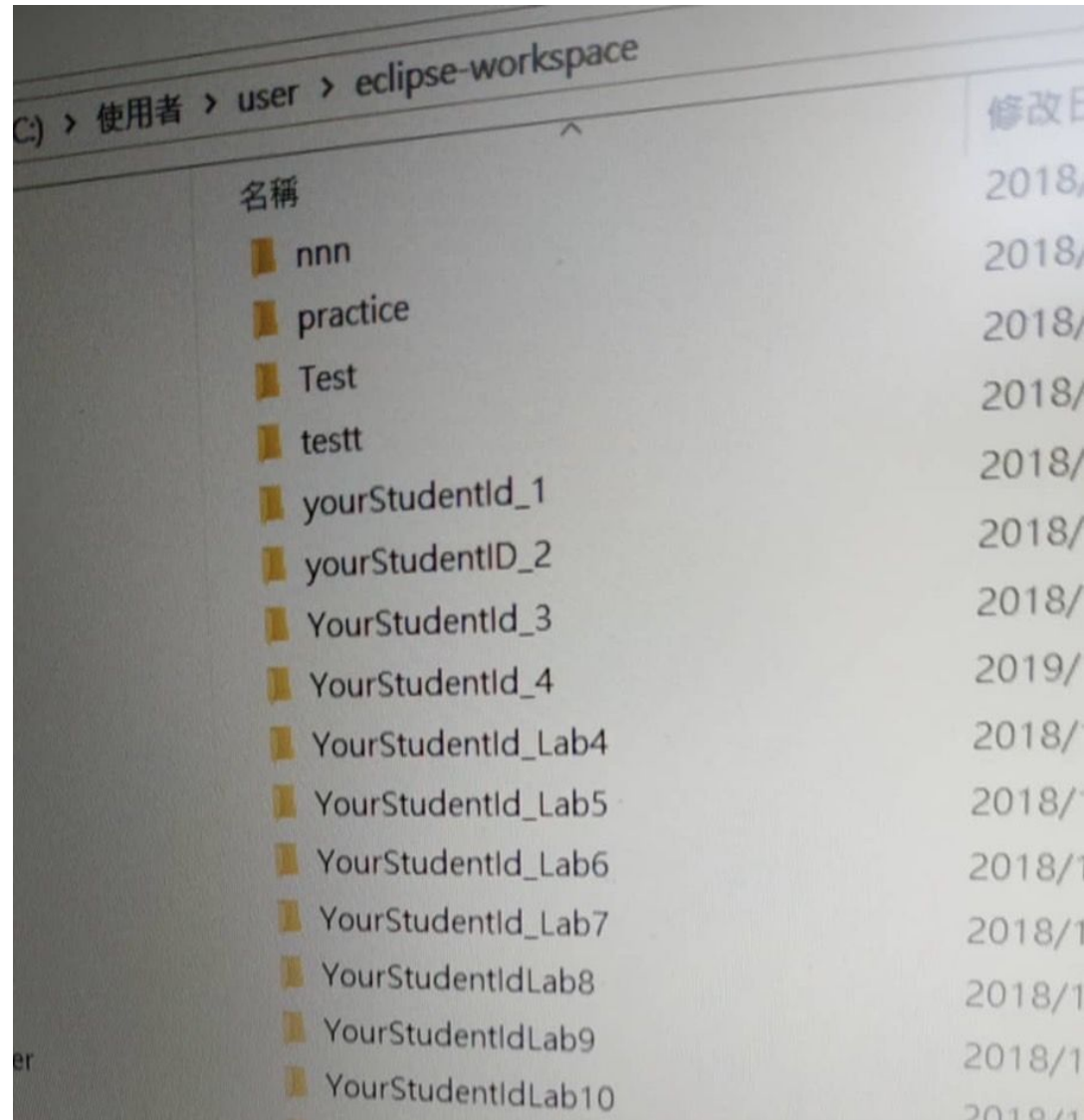
Lab Notice

- 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_113306XXX
- 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_113306XXX) 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/2024fallDS-HW.git>

git pull origin main

Download HW

- First time

```
Last login: Sun Aug 18 23:50:30 on console
(base) miac@miachen-2 ~ % cd Desktop/DS2024
(base) miac@miachen-2 DS2024 % git init
已初始化空的 Git 版本庫於 /Users/miac/Desktop/DS2024/.git/
(base) miac@miachen-2 DS2024 % git remote add origin https://github.com/pen9rum/
2024fallDS-HW.git

(base) miac@miachen-2 DS2024 % git pull origin main
remote: Enumerating objects: 73, done.
remote: Counting objects: 100% (73/73), done.
remote: Compressing objects: 100% (65/65), done.
remote: Total 73 (delta 18), reused 27 (delta 2), pack-reused 0 (from 0)
展開物件中: 100% (73/73), 4.44 MiB | 405.00 KiB/s, 完成.
來自 https://github.com/pen9rum/2024fallDS-HW
* branch          main          -> FETCH_HEAD
* [新分支]        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 9/19)

- 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 Moodle (**no** direct copy accepted)

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
```

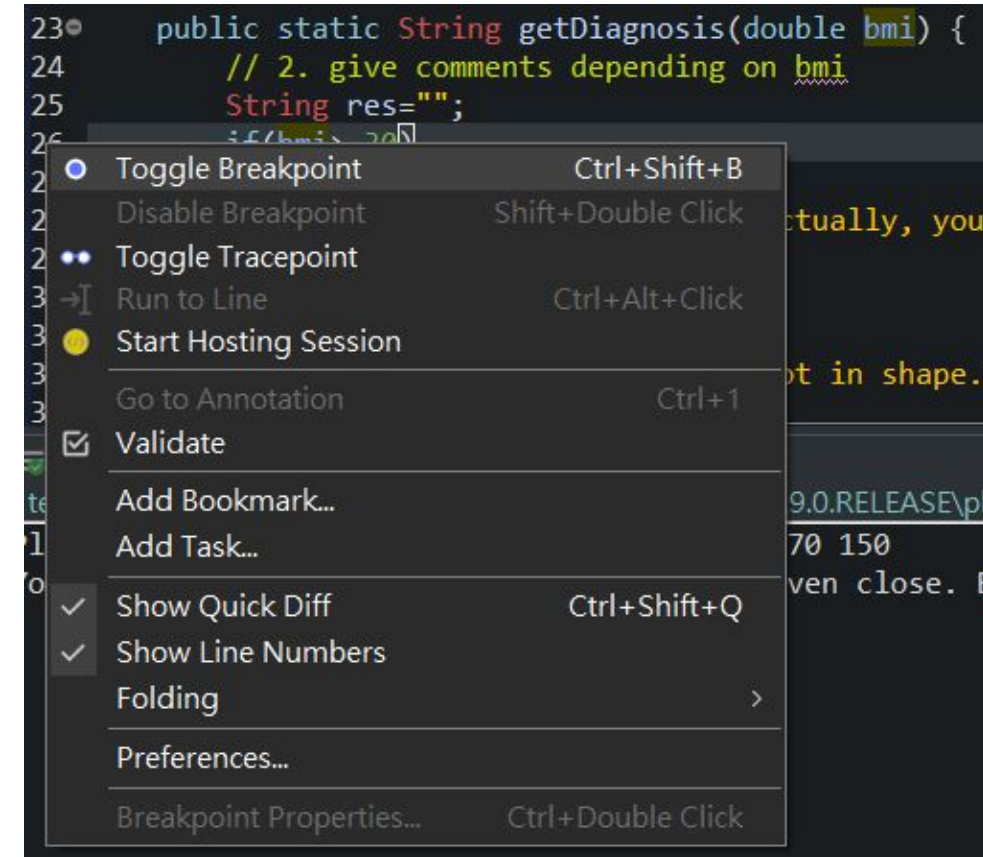
```
Please enter your weight(kg) and height(cm): 60 150  
To be honest, you are not in shape. BMI: 26.666666666666668
```

```
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 }
```

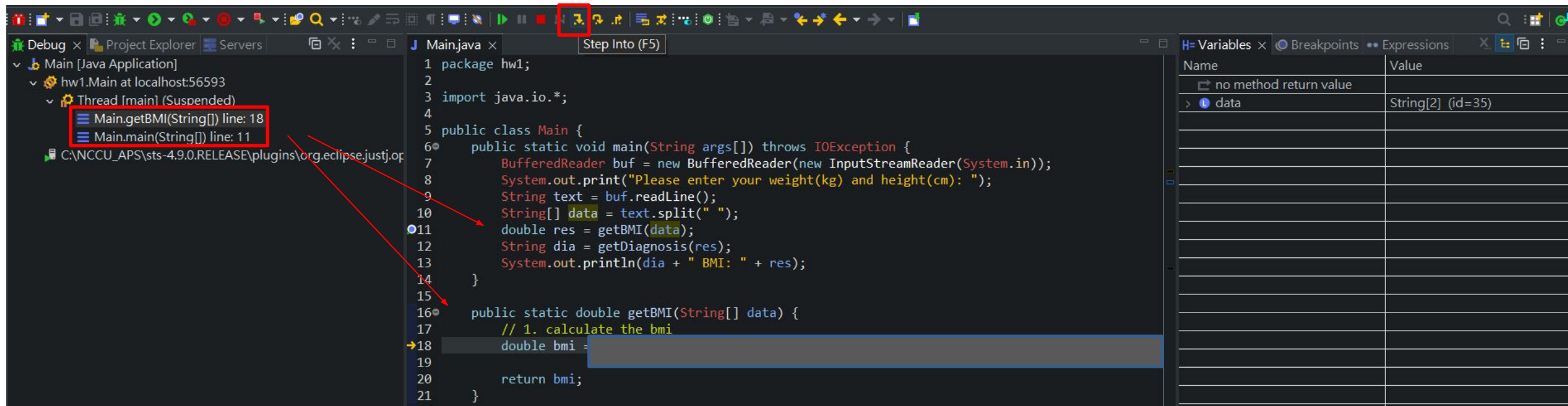
Red annotations highlight the following:

- 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 current state of variables.

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 劉亭妤 113356048@nccu.edu.tw
- Deadline 9/22 (SUN) 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