

Assignment – IV

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Question:

Suppose you are working as a dietitian, and you want to calculate and displays a person's body mass index (BMI). The BMI is often used to determine whether a person lifestyle is overweight or underweight. A person's BMI is calculated with the following formula:

$$\text{BMI} = \text{weight} * 711 / \text{height}^2$$

Where weight is measured in pounds and height is measured in inches. Display a message indicating whether the person has optimal weight, is underweight, or is overweight. A sedentary person's weight is optimal if his or her BMI is between 19.5 and 26. If the BMI is less than 19.5, the person is underweight. If the BMI value is greater than 26, the person is considered to be overweight

Code:

```
A4.java 1 Java\Assign4\A4.java...
import java.util.Scanner;

public class A4 {
    Run | Debug
    public static void main(String[] args) {
        Scanner scanner = new Scanner(System.in);

        System.out.print("Please choose between imperial and metric (i/m): ");
        String choice = scanner.nextLine().toLowerCase();

        double weight, height;

        if (choice.equals("m")) {
            System.out.print("Please enter your weight in kilograms: ");
            weight = scanner.nextDouble();
            System.out.print("Please enter your height in centimeters: ");
            height = scanner.nextDouble() / 100;
        } else {
            System.out.print("Please enter your weight in pounds: ");
            weight = scanner.nextDouble();
            System.out.print("Please enter your height in inches: ");
            height = scanner.nextDouble();
        }

        double bmi = (weight * 711) / Math.pow(height, 2);

        System.out.printf("Your BMI is %.2f\n", bmi);
    }
}
```

Output:



```
PS C:\Users\rhohit\Documents> cd c:\Users\rhohit\Documents\ids & 'C:\Program Files\Java\jdk-19\bin\java.exe' ^- -enable-preview ^- -XX:+ShowCodeDetailsInExceptionMessages ^- -cp 'C:\Users\rhohit\AppData\Roaming\Code\User\workspaceStorage\2\chShw0'
Please choose between imperial and metric (i/m): i
Please enter your weight in pounds: 120
Please enter your height in inches: 58
Your BMI is 34.12.80
PS C:\Users\rhohit\Documents\ids>
```

Repository:

<https://github.com/kotarohts/java.git>

