

Lab Session	#5										
Learning Outcome: <ol style="list-style-type: none"> 1. Students could create java program to get user input from keyboard and external file using Java Library Scanner 2. Student could create java program that implements control structure (if else; switch case) to solve simple computational problems 											
To Do List (during the lab): <ol style="list-style-type: none"> 1. Give feedback (the answer) of Lab 4, show their mark 2. Completing online course: https://www.codechef.com/learn/BJ00LP03/problems/USRJ1 3. Completing online course: https://www.codechef.com/learn/BJ00LP04/problems/CNDJ1 4. Completing the tasks below: 											
All Cohorts:											
Task 1 (Guided): <p>A medical diagnostic center needs a computer program to compute their customer body mass index (BMI) and determine whether their weight is normal or not. The BMI is computed using the formula: BMI = kg/m² where kg is a customer's weight in kilograms and m² is their height in meters squared. The BMI category is as follow:</p> <table border="1"> <thead> <tr> <th>BMI</th><th>Category</th></tr> </thead> <tbody> <tr> <td>< 18.5</td><td>underweight</td></tr> <tr> <td>18.5 - 24.9</td><td>normal</td></tr> <tr> <td>25 - 29.9</td><td>overweight</td></tr> <tr> <td>> 29.9</td><td>obese</td></tr> </tbody> </table> <p>Please help with the java program, given the input and expected output as shown below:</p>		BMI	Category	< 18.5	underweight	18.5 - 24.9	normal	25 - 29.9	overweight	> 29.9	obese
BMI	Category										
< 18.5	underweight										
18.5 - 24.9	normal										
25 - 29.9	overweight										
> 29.9	obese										

```

=====
Alpro Medical Diagnostic Centre
-----
Please input your name : Kokom Timberland
Please input your sex ( m / f ) : m
Please input your height ( cm ) : 170
Please input your weight ( kg ) : 70
-----
Customer Name      : Mr Kokom Timberland
BMI                : 24.221453287197235
Category           : normal
=====

```

Please bear in mind that:

1. The input of height is in **cm** whereas the BMI formula is in **m**
2. The customer salutation is based on their sex, **Mr** for male (m) and **Ms** for female(f)

Task 2 (semi-guided) :

In addition to compute the BMI, the lab needs to read the medical check up laboratory Results. In this case, the lab was carried out to measure the blood glucose and cholesterol. The lab result is saved in separated text file, i.e. **medicalcheckupresult.txt**; the file is read as shown below:

```

1 Medical Checkup Results
2 -----
3 blood glucose:105 mg/dL
4 cholesterol:250 mg/dL

```

Please help the medical diagnostic center to check whether the customers blood glucose is normal or abnormal based on the following table.

Age (year)	Normal Glucose
< 6	100-200 mg/dL
6 - 12	70-150 mg/dL
> 12	< 100 mg/dL

Also, to check the cholesterol level, based on the criteria based on the following table.

Category	Cholesterol (mg/dl)	Level Status
Adult (> 20 years old)	< 200	Normal
	200 - 239	Borderline
	≥ 240	High
Young (≤ 20 years old)	≤ 170	Normal
	170-199	Borderline
	≥ 240	High

The sample input and the expected out is shown by the figure below:

```

=====
      Alpro Medical Diagnostic Centre
-----
Please input your name  : Rihanna Kikiwati
Please input your age   : 56
-----
      Medical Checkup Results:
Cust. Name           : Rihanna Kikiwati (56 yo)
1.Blood Glucose      : 105 (Abnormal)
2.Cholesterol        : 250 (High)
=====

```

Task 3 (unguided) :

Cohort A and B:

For a grocery store, please help to create a program to get the customer name and membership category, read the shopping receipt, **i.e. receipt.txt**, displaying the item list, and finally compute the total price, discount and coupons rewarded to the customers. The number of discount is based on the membership category as follow:

Membership category	Discount (%)
Non-member	0
Silver	5
Gold	10
Platinum	15

The customers deserve 1 coupon for each Rp25000 purchase. The sample input and the expected output of your program should be something like the figure below:

```
Enter your name: Inggrit
Enter your membership category (None/Silver/Gold/Platinum): Platinum
You have purchased:
Toothpaste 24000
Shampoo 46000
Bodysoap 35000
Facewash 58000
Hi, Inggrit!
Since you are a Platinum member, you get a 15.0% discount.
Your total purchase value is Rp163000.0.
You need to pay Rp138550.0.
Congrats! You get 5 coupons.
```

Cohort C:

Coming soon!

Cohort D, E, F:

Coming soon!

Submit your work through codeboard:

1. Cohort B: <https://codeboard.io/projects/379394/>

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