

Case : CS-COMP6364-Var01

Learning Outcomes

- Describe the additional features of OOP
- Construct a program using additional features of OOP

Topic

- Session 05 – Wrapper Class and Method

Sub Topics

- Exception Handling
- Math Method
- Wrapper Class

Soal

Case

Suzy is a student that just got a subject in his college about OOP. She wants to create a program about Fibonacci numbers. For your information, Fibonacci numbers are the numbers in the following integer sequence. Now, help her to make a program based on these rules:

- The program consists of 3 menus:
 1. **Fibonacci**
 2. **Fibonacci with step**
 3. **Exit**
- If user chooses “***Fibonacci***”, then the program will:
 - Ask user to **input** how many fibonacci number that she/he wants to print. The **number** must be between **1** and **20**.
 - Then show the fibonacci number with these following formula:

$$\text{Fibonacci}(n) = \text{Fibonacci}(n - 1) + \text{Fibonacci}(n - 2)$$

- If user chooses “***Fibonacci with step***”, then the program will:
 - Ask user to **input** how many fibonacci number that she/he wants to print. The **number** must be between **1** and **20**.
 - Then show the step of calculating fibonacci number.
- If user chooses “**Exit**”, then the program will end.
- Do not forget to use Exceptin Handling to handle any possible errors

For more details, please run the .EXE file.

Printscreen of main menu

```
Fibonacci Number Calculation
=====
1. Fibonacci
2. Fibonacci with step
3. Exit
Choose :
```

Print screen of menu 1 “Fibonacci”

```
Input the number[1-20]: 123
Input the number[1-20]: 0
Input the number[1-20]: 3

The Result of Fibonacci

fibonacci(3) = 2
```

Print screen of menu 2 “Fibonacci with step”

```
Input the number[1-20]: 123
Input the number[1-20]: 0
Input the number[1-20]: 3

The Result of Fibonacci

fibonacci(3) = fibonacci(1) + fibonacci(2)
fibonacci(3) =      1      +      1
fibonacci(3) = 2

The Series of Fibonacci 3: 0 1 1 2
```

Print screen of menu 3 “Exit”

```
Thank you and have a nice day.. ^^
```

If anyone does not understand, ask your assistant!