Case: CS-COMP6360-Var02

# **Learning Outcomes**

LO1: Differentiate between conventional programming and OOP

LO2: Describe the main features of OOP

# **Topic**

• Session 06 – Array, ArrayList, Vector

### **Sub Topics**

- Array Definition and Declaration
- ArrayList Method
- Two dimensional Array
- Vector Method

## Soal

Case

Guess Multi is a game that will display a 5 x 5 matrix of number. The number will be randomized by the program.

- At the beginning of the program will generate the number from 0 100.
- The generated matrix will be displayed to the screen
- The program will also generate four numbers that will be used to get the number from the matrix
- User will be asked to enter multiplication of the two number from the cell that are displayed previously
- If the answer is correct, a message will be displayed "You Are Brilliant"
- If the answer is wrong, a message will be displayed "You Are Wrong"
- The number will be changed every time the program is run

Please run the EXE file to see the sample program.

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### **Print Screen of First Screen**

```
Guess Multiplication Random Matrix
                                         [2] 20
[0] [0] 28
                  [0] [1] 1
                                                        [0] [3] 89
                                                                              [4] 6
                  [1] [1] 57
[2] [1] 99
                                                            [3] 14
[1] [0] 73
                                     [1]
                                         [2] 1
                                                        [1]
                                                                              [4] 53
                                                                          [1]
                                                       [2] [3] 34
[3] [3] 67
                                                                          [2] [4] 73
[3] [4] 22
                                     [2] [2] 83
[2] [0] 40
                                     [3]
[3] [0] 21
                  [3] [1] 47
                                         [2] 99
                                                       [4] [3] 28
                                                                          [4]
[4] [0] 23
                  [4] [1] 96
                                     [4] [2] 98
                                                                              [4] 90
What is the result of angka[2][3] times angka[3][0] ?714
You Are Brilliant
```

### **Print Screen of Second Screen**

```
Guess Multiplication Random Matrix
                                                                      [0] [3] 50
[1] [3] 87
[2] [3] 26
[3] [3] 69
                                                                                              [0] [4] 23
[1] [4] 7
[2] [4] 55
[3] [4] 27
[0] [0] 9
[1] [0] 24
                       [0] [1] 60
[1] [1] 84
                                               [0] [2] 42
                                               [1] [2] 99
                       [2] [1] 87
[3] [1] 34
                                               [2] [2] 82
[3] [2] 4
[2] [0] 89
[3] [0] 69
                       [4] [1] 68
[4] [0] 16
                                               [4] [2] 54
                                                                       [4] [3] 91
                                                                                              [4] [4] 94
What is the result of angka[1][2] times angka[0][3] ?4
You Are Wrong
```

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