

## Lab 05 – 04-10-2023

**Task 1:** Write a program that asks the user for the number of males and the number of females registered in a class. The program should display the percentage of males and females in the class. If percentage of male students is more give output in left hand format, otherwise give output in right hand format. Use \t wherever required to align output in lines

Enter Number of Males: 45

Enter Number of Females: 15

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| Percentage of Males: 75 % |
| Percentage of Females: 15 % |
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Enter Number of Males: 24

Enter Number of Females: 36

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*****
*** Percentage of Females: 60 % ***
*** Percentage of Males: 40 % ***
*****
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*Hint: Suppose there are 8 males and 12 females in a class. There are 20 students in the class. The percentage of males will be  $8 \times 100 \div 20 = 40\%$ . The percentage of females will be  $12 \times 100 \div 20 = 60\%$ . Calculate percentage in integer value.*

**Task 2:** Generate four random numbers in range 1-5 and print them in single line with tab space. Next, check and print one of the messages given in the sample run:

Sample Run:

2    3    1    4  
All are different

2    5    2    4  
Two are same and two are different

2    5    2    2  
Three are same and one is different

2    2    2    2  
All are same

2    5    2    5  
Two are same and other two are same

4    2    2    4  
Two are same and two are different

2    2    2    4  
Three are same and one is different

**Task 3:** Write a program to generate three random numbers, two for operands and one for choice. Generate and print operands in range 1 to 9. Generate choice in range 1-3. For choice one, ask user to enter sum of two operands, for choice two, ask user to enter difference of two operands and for three, ask user to enter product of two operands. Check user answer and print "Correct" or "Incorrect". See sample run:

Sample Run:

5    4  
Enter product: 15  
Incorrect

3    2  
Enter sum: 5  
Correct