

# OOP ---- Lab Task 1

## Question 1:

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File Edit Selection View Go Run Terminal Help Q_OOP D < > CHAT > PORTS > TERMINAL muhammad-awais@ubuntu:~/Documents/Files/FAST/Semester2/OOP/Labs cd "/home/muhammad-awais/Documents/Files/FAST/Semester2/OOP/Labs" && 01.cpp -o 01_66 && ./01_66 Before Swap: 5 10 After Swap: 10 5 Normalizing num1: 1 Normalizing num2: 1 Mean: 7.5 Range: 5 muhammad-awais@ubuntu:~/Documents/Files/FAST/Semester2/OOP/Labs cd "/home/muhammad-awais/Documents/Files/FAST/Semester2/OOP/Labs" && 01.cpp -o 01_66 && ./01_66 Before Swap: 10 20 After Swap: 20 10 Normalizing num1: 1 Normalizing num2: 1 Mean: 15 Range: 10 muhammad-awais@ubuntu:~/Documents/Files/FAST/Semester2/OOP/Labs cd "/home/muhammad-awais/Documents/Files/FAST/Semester2/OOP/Labs" && 01.cpp -o 01_66 && ./01_66 Before Swap: 100 200 After Swap: 200 100 Normalizing num1: 1 Normalizing num2: 1 Mean: 60 Range: 80 muhammad-awais@ubuntu:~/Documents/Files/FAST/Semester2/OOP/Labs
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01.cpp x 01.cpp Lab > & 01.cpp > o1_66.o main() #include <iostream> #include <iomanip> using namespace std; void funSwap(int *ptr1, int *ptr2); void calcRange(int *ptr1, int *ptr2, float *range); void calcMean(int *ptr1, int *ptr2, float *mean); void calcNorm(int *ptr, int *norm); int main(){ int num1 = 10, num2 = 20, norm; float mean = 0, range = 0; cout << "Before Swap: " << num1 << " " << num2 << endl; funSwap(&num1, &num2); cout << "After Swap: " << num1 << " " << num2 << endl; calcRange(&num1, &num2, &range); calcMean(&num1, &num2, &mean); calcNorm(&norm); cout << "Normalizing num1: " << norm << endl; calcNorm(&num2, &norm); cout << "Normalizing num2: " << norm << endl; cout << "Mean: " << mean << endl; cout << "Range: " << range << endl; return 0; } void funSwap(int *ptr1, int *ptr2){ int temp = *ptr2; *ptr2 = *ptr1; *ptr1 = temp; } void calcRange(int *ptr1, int *ptr2, float *range){ int max = 0, min = 1000; if(*ptr1 < *ptr2){ max = *ptr2; min = *ptr1; } else{ max = *ptr1; min = *ptr2; } *range = max - min; } void calcMean(int *ptr1, int *ptr2, float *mean){ *mean = float(*ptr1 + *ptr2) / 2; } void calcNorm(int *ptr, int *norm){ *norm = *ptr / (*ptr); }
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## Question 2:

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File Edit Selection View Go Run Terminal Help Q_OOP D < > CHAT > PORTS > TERMINAL muhammad-awais@ubuntu:~/Documents/Files/FAST/Semester2/OOP/Labs cd "/home/muhammad-awais/Documents/Files/FAST/Semester2/OOP/Labs" && 02.cpp -o 02_66 && ./02_66 Enter marks of 3 Subjects: 34 56 88 Total: 178 / 300 Percentage: 59% muhammad-awais@ubuntu:~/Documents/Files/FAST/Semester2/OOP/Labs cd "/home/muhammad-awais/Documents/Files/FAST/Semester2/OOP/Labs" && 02.cpp -o 02_66 && ./02_66 Enter marks of 3 Subjects: 99 87 87 Total: 274 / 300 Percentage: 88% muhammad-awais@ubuntu:~/Documents/Files/FAST/Semester2/OOP/Labs cd "/home/muhammad-awais/Documents/Files/FAST/Semester2/OOP/Labs" && 02.cpp -o 02_66 && ./02_66 Enter marks of 3 Subjects: 66 99 89 Total: 254 / 300 Percentage: 84% muhammad-awais@ubuntu:~/Documents/Files/FAST/Semester2/OOP/Labs cd "/home/muhammad-awais/Documents/Files/FAST/Semester2/OOP/Labs" && 02.cpp -o 02_66 && ./02_66 Enter marks of 3 Subjects: 33 44 32 Total: 109 / 300 Percentage: 36% muhammad-awais@ubuntu:~/Documents/Files/FAST/Semester2/OOP/Labs
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02.cpp x 02.cpp Lab > & 02.cpp > o2_66.o calcTotal(int *ptr1, int *ptr2, int *ptr3, int *total){ *total = *ptr1+*ptr2+*ptr3; } calcPercent(int *ptr1, int *ptr2, int *ptr3, int *total, float *percent){ *percent = float(*total*100)/300; }
```