LAB PROGRAM WEEK-1
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Q) Write a menu driven C Program to design a simple calculator which solves 10 operations - 4 Arithmetic, 4 Relational and any two of your choice. The program should loop till the user wishes to stop:

```
#include<stdio.h>

int compute_operation(int num1,int num2){
char operator;
int x;
while(1) {
  printf("Type the operation function you want to use from:
(+,-,*,/,>,<,=(equal to),!(not equal to),m(modulus),i(increament)):
\n");
  scanf("%c",&operator);
  printf("Enter two numbers to perform the operation \n");
  scanf("%d %d",&num1,&num2);

  switch(operator) {
                    case '+':
                          printf("%d+%d=%d
\n",num1,num2,num1+num2);
                          break;
                    case '-':
```

```
        printf("%d-%d=%d",num1,num2,num1-num2);
        break;
case '*':
        printf("%d*%d=%d \n",num1,num2,num1*num2);
        break;
case '/':
        printf("%d/%d=%d\n",num1,num2,num1/num2);
        break;
case '>':
         if(num1 > num2){
            printf("%d > %d\n",num1,num2);
         }
         else{
            printf("%d > %d",num2,num1);
         }
         break;
case '<':
         if(num1 < num2){
            printf("%d < %d\n",num1,num2);
         }
         else{
            printf("%d < %d",num2,num1);
         }
         break;
case '=':
        if(num1 == num2){
            printf("%d == %d\n",num1,num2);
         }
         else{
            printf("%d != %d",num1,num2);
         }
         break;
case '!':
        if(num1 > num2){
            printf("%d != %d\n",num1,num2);
         }
         else{
            printf("%d = %d",num1,num2);
         }
```

```
                    break;
                case 'm':
                    printf("%d mod %d
=%d",num1,num2,num1%num2);
                    break;
                case 'i':
                    printf("%d++ =%d\n",num1,num1+1);
                    break;
                }
    printf("Press 1 to perform calculation again\n or \n press any
other key to exit\n");
    scanf("%d",&x);
    if(x!=1) {
        break;
    }
  }

}
  int main() {

        int p,q;
  compute_operation(p,q);


 return 0;

        }
```

Output-

```
abduls-MacBook-Pro:ccp abdulhamid$ ./a.out
Type the operation function you want to use from:(+,-,*,/,>,<,=(equal to),!(not equal to),m(modulus),i(increament)):
/
Enter two numbers to perform the operation
30
3
30/3=10
Press 1 to perform calculation again
 or
 press any other key to exit
e
abduls-MacBook-Pro:ccp abdulhamid$
```

Q2) Write a C program to accept three numbers from the user. Find the greater two among the three and pass them as parameters to the user defined functions given below.
a. sumaver (…) which finds the sum and average of the two numbers. Print the sum and return the average.
b. printeven (…) which prints all the even numbers between the given two numbers:

```
#include<stdio.h>
float sumaver(int a,int b);
void printeven(int a,int b);
int main(){
  int a,b,c;
  float result;
  printf("Enter 3 numbers \n");
  scanf("%d %d %d",&a,&b,&c);

  if(a>b && b>c){
        result= sumaver(a,b);
        printf("The average of 2 numbers is: %f \n",result);
        printeven(a,b);
  }

  else if(a>b && c>b){
        result=sumaver(a,c);
        printf("The average of 2 numbers is: %f \n",result);
```

```
        printeven(a,c);
  }

  else  if(b>a && c>a){
    result=sumaver(b,c);
    printf("The average of 2 numbers is: %f \n",result);
    printeven(b,c);
   }
}

float sumaver(int a, int b)
{
int sum,avg;
sum=a+b;
printf("%d+%d=%d \n",a,b,sum);
avg =sum/2.0;
return avg;
}
void printeven(int a, int b){
int i;
if(a>b)
{
printf("the even number between %d and %d are = \n",a,b);
for(i=b;i<a;i++)
 {
    if(i%2==0){
 printf("%d \t",i);
    }
}

}
else
{
printf("the even number between %d and %d are = \n",a,b);
for(i=a;i<b;i++){
 if(i%2==0){
 printf("%d \t",i);
 }
}
```

```
}

}
```

```
Enter 3 numbers
1 4 10
4+10=14
The average of 2 numbers is: 7.000000
the even number between 4 and 10 are =
4       6       8       abduls-MacBook-Pro:ccp abdulhamid$
```