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1BM19CS176
01 Batch

OOJ - LAB

1. 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 main()
{
    int c,a,b,i;
    while(1)
    {
      printf("PRESS THE NUMBER TO CHOOSE THE
                    OPERATION:\n");
      Printf("1) Add\n");
      Printf("2) subtract\n");
      Printf("3) multiply\n");
      Printf("4) divide\n");
      printf("5) modulus\n");
      Printf("6) greater than\n");
      Printf("7) lesser than\n");
      Printf("8) equal to\n");
      Printf("9) not equal to\n");
      Printf("10) increment\n");
    Scanf("%d%d%d",&a,&b);
    switch(i)
```

```
{
case 1: printf("%d + %d = %d \n", a, b, a+b);
    break;
case 2: printf("%d - %d = %d \n", a, b, a-b);
    break;
case 3: printf("%d * %d = %d \n", a, b, a*b);
    break;
case 4: printf("%d / %d = %d \n", a, b, a/b);
    break;
case 5: printf("%d mod %d = %d \n", a, b, a%b);
    break;
case 6: if(a>b)
    {
    printf("%d > %d \n", a, b);
    }
    else
    {
    printf("%d > %d \n", b, a);
    }
    break;
case 7: if(a<b)
    {
    printf("%d < %d \n", a, b);
    }
    else
    {
    printf("%d < %d \n", b, a);
    }
    break;
```

```
        case 8: if (a==b)
        {
        printf ("%d=%d\n", a,b);
        }
        break;
        else
        {
         printf("%d=%d\n", b,a);
        }
        break;
    case 9 : if (a!=b)
        {
        printf("%d!=%d\n" ,a,b);
        }
        else
        {
         printf("%d!=%d\n", b, a);
        }
        break;
     case 10:
     printf("%d++=%d\n", a,a+1);
     Printf("%d++=%d\n", b,b+1);
      break;
     default : printf("WRONG INPUT!\n");
    }
Printf("Press 1 to perform calculation again\n
      press any other key to exit\n");
  Scanf("%d", &c);
   if (c!=1)
{ break; } } }
```

Output

PRESS THE NUMBER TO CHOOSE THE OPERATION".

17 add
27 subtract
37 multiply
47 divide
57 modulus
67 greater than
77 lesser than
87 equal to
97 not equal to
107 increment

2
Enter two numbers".
8 7
8 - 7 = 1

Press 1 to perform calculation again
Press any other key to exit

0

2.

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D1 Batch

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 print all the even numbers between the given two numbers.

```
#include <stdio.h>
int sumaver(int a, int b)
{
 int sum;
 sum = a+b;
 printf("sum = %d\n", sum);
 return sum/2;
}
void printeven(int a, int b)
{
 int small, big;
 if (a>b)
 {
  small = a;
  big = b;
 }
```

```
Printf("even numbers between two
        numbers are:\n");
int i;
for (i=small+1; i<big; i++)
{
 if (i%2==0)
 Printf("%d\n", i);
 }
 }
 int main()
 {
 int a, b, c, avg, g1, g2;
 Printf("enter three numbers:\n");
 scanf("%d%d%d", &a, &b, &c);
 if (c<a && c<b)
 {
  g1=a;
  g2=b;
 }
 else if (b<a && b<c)
 {
  g1=a;
  g2=c;
 }
 else
 {
  g1=b;
  g2=c;
 }
```

```
avg = sumaver (g1, g2);
printf ("average of two numbers is :%d\n", avg);
printnum (g1, g2);
}
```

Output:

```
enter three numbers:
6
12
22
Sum = 34
averag of two number is :17
even numbers betweentwo numbers are:
2
4
6
8
10
12
14
16
18
20
```