



## **LAB MANUAL 5**

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## LAB TASK -1

```
#include<iostream>
using namespace std;
int main(){
    int x=1;
    do{
        cout<<"Enter a number"<<endl;
        cin>>x;
    }
    while(x>0);

    return 0;}
```

```
Enter a number
7
Enter a number
9
Enter a number
4
Enter a number
-9

-----
Process exited after 8.908 seconds with return value 0
Press any key to continue . . .
```

## HOME TASK -2

```
#include<iostream>
using namespace std;
int main(){
    char choice;
    double num1,num2;
    char oper;
    double sum,diff,mult,div;
    do{

        cout<<"Enter num1"<<endl;
        cin>>num1;
        cout<<"Enter num2"<<endl;
        cin>>num2;
        cout<<"oper"<<endl;
        cin>>oper;

        switch(oper){

            case '+':
                sum=num1+num2;
                cout<<sum<<endl;
                break;

            case '-':
                diff=num1-num2;
                cout<<diff<<endl;
                break;

            case '*':
                mult=num1*num2;
                cout<<mult<<endl;
                break;
```

```

        cout<<"mult"<<endl;
        break;

        case '/':
            if(num2==0){
                cout<<"Error!, cannot divided by zero "<<endl;
                continue;}

            else{
                div=num1/num2;
                cout<<div<<endl;
            }
            break;

        default:
            cout<<"invalid operation"<<endl;
            continue;
    }

    cout<<"Do you want to perform another operation"<<endl;

    cin>>choice;}
    while (choice=='y' );

    cout<<"program terminated"<<endl;

```

```

    return 0;}

```

```

Enter num1
5
Enter num2
8
oper
+
13
Do you want to perform another operation
y
Enter num1
4
Enter num2
8
oper
-
-4
Do you want to perform another operation
_

```

## LAB TASK -3

```
#include<iostream>
using namespace std;
int main ()
{
    int x=2;
    int sum1=0;
    int y=1;
    int sum2=0;

    while(x<=100) {

        sum1 += x;
        x+=2;

        cout<<"THE SUM OF ALL EVEN NUMBERS BETWEEN 2 AND 100 is "<<sum1 <<endl;

        while (y<=100)
        {
            sum2 +=y*y;
            y++;
        }
        cout<<"the sum of all squares between 1 and 100 is "<<sum2 <<endl;
        return 0;
    }
}
```

```
THE SUM OF ALL EVEN NUMBERS BETWEEN 2 AND 100 is 2550
the sum of all squares between 1 and 100 is 338350
```

```
-----
Process exited after 0.1386 seconds with return value 0
Press any key to continue . . .
```

## LAB TASK -4

```
#include <iostream>
using namespace std;
int main(){
    int a,b;
    cout<<"Enter the value of a: ";
    cin>>a;
    cout<<"Enter the value of b: ";
    cin>>b;
    int sum=0;
    int current=a;
    do{
        if(current%2!=0){
            sum=sum+current;
        }
        current++;
    }while(current<=b);
    cout<<"The sum of all values between "<<a<<" and "<<b<<" is "<<sum<<endl;
    return 0;
}
```

```
Enter the value of a: 2
Enter the value of b: 5
The sum of all values between 2 and 5 is 8

-----
Process exited after 3.483 seconds with return value 0
Press any key to continue . . .
```

## LAB TASK -4 PART B

```
#include <iostream>
#include <math.h>
using namespace std;
int main(){
double power=0;
while (power<=20){
double result=pow(2,power);
cout<<"2^"<<power<<"="<<result<<endl;
power++;
}
return 0;
}
```

```
2^0=1
2^1=2
2^2=4
2^3=8
2^4=16
2^5=32
2^6=64
2^7=128
2^8=256
2^9=512
2^10=1024
2^11=2048
2^12=4096
2^13=8192
2^14=16384
2^15=32768
2^16=65536
2^17=131072
2^18=262144
2^19=524288
2^20=1.04858e+006
```

```
-----
```

```
Process exited after 0.2877 seconds with return value 0
Press any key to continue . . .
```