



MANUAL 5 - LABTASKS

NAME:Rameen Fatima

CLASS:ME-15C

CMS ID:453962

LABTASK 1:

```
#include <iostream>
```

```
using namespace std;
```

```
int main(){
```

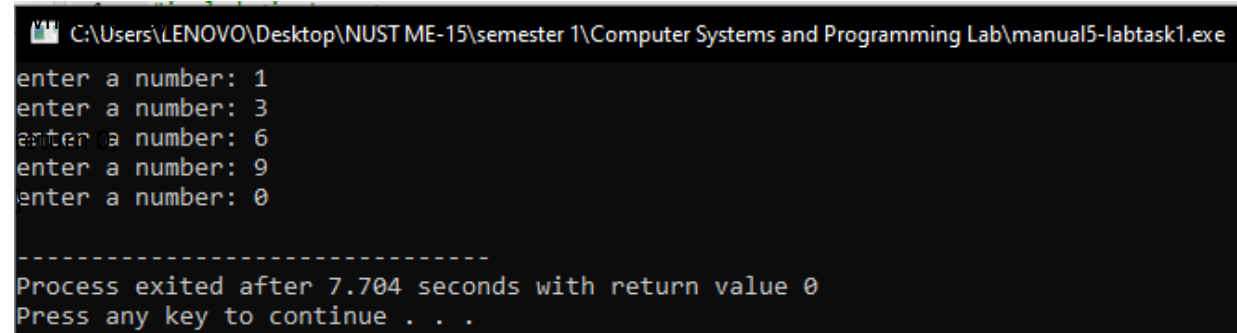
```
int x = 1;
```

```
do
```

```
{
```

```
cout << "enter a number: ";
```

```
cin >> x;
```



```
C:\Users\LENOVO\Desktop\NUST ME-15\semester 1\Computer Systems and Programming Lab>manual5-labtask1.exe
enter a number: 1
enter a number: 3
enter a number: 6
enter a number: 9
enter a number: 0

-----
Process exited after 7.704 seconds with return value 0
Press any key to continue . . .
```

LABTASK 2:

```
#include<iostream>

#include<math.h>

using namespace std;

int main(){

    double a,b,res;

    char op,rep,con;

    do{

        do{

            cout << "Enter two numbers:"<<endl;

            cin>>a>>b;

            cout<< "Enter your operation:"<<endl<<"1.+ = sum"<<endl<<"2.- =  
difference"<<endl<<"3./ = division"<<endl<<"4.x = multiplication"<<endl<<"5.r = remainder"  
<<endl<<"6.p = power"<<endl;

            cin>> op;

            cout<<"Are you sure these are your values(y/n)?";

            cin>>con;

        }while(con == 'n');

        switch(op){

            case '+':

                res = a+b;

                break;
```

```

        case '-':
            res = a-b;
            break;
        case 'x':
            res = a*b;
            break;
        case '/':
            res = a/b;
            break;
        case 'p':
            res = pow(a,b);
            break;
        case 'r':
            res = fmod(a,b);
            break;

        default:
            cout << "Invalid input";

    }

    cout << "Your result is:"<<res<<endl;
    cout << "Do you want to repeat(y/n)?"<<endl;
    cin>>rep;

    }while(rep == 'y');

}

```

```
C:\Users\LENOVO\Desktop\NUST ME-15\semester 1\Computer Systems and Programming Lab\Manual5\manual5-labtask2
Enter two numbers:
2
4
Enter your operation:
1.+ = sum
2.- = difference
3./ = division
4.x = multiplication
5.r = remainder
6.p = power
x
Are you sure these are your values(y/n)?n
Enter two numbers:
4
8
Enter your operation:
1.+ = sum
2.- = difference
3./ = division
4.x = multiplication
5.r = remainder
6.p = power
/
Are you sure these are your values(y/n)?y
Your result is:12
Do you want to repeat(y/n)?
y
Enter two numbers:
6
9
Enter your operation:
1.+ = sum
2.- = difference
3./ = division
4.x = multiplication
5.r = remainder
6.p = power
p
Are you sure these are your values(y/n)?y
Your result is:1.00777e+007
Do you want to repeat(y/n)?
n
-----
```

LABTASK 3a:

```
#include <iostream>

using namespace std;

int main(){

    int y=2,s=0;

    cout << y;

    do{

        s = s + y;

        y = y + 2;

        cout << "+"<<y;

    }while(y<100);

    cout << "="<<s;

}
```

C:\Users\LENOVO\Desktop\NUST ME-15\semester 1\Computer Systems and Programming Lab\Manual5\manual5-labtask3a.exe

2+4+6+8+10+12+14+16+18+20+22+24+26+28+30+32+34+36+38+40+42+44+46+48+50+52+54+56+58+60+62+64+66+68+70+72+74+76+78+80+82+84+86+88+90+92+94+96+98+100=2450

Process exited after 0.1024 seconds with return value 0

Press any key to continue . . .

LABTASK 3b:

```
#include <iostream>

using namespace std;

int main(){

    int y=1,sq=0,s = 0;

    cout << y;

    do{

        y = y + 1;

        sq = y * y;

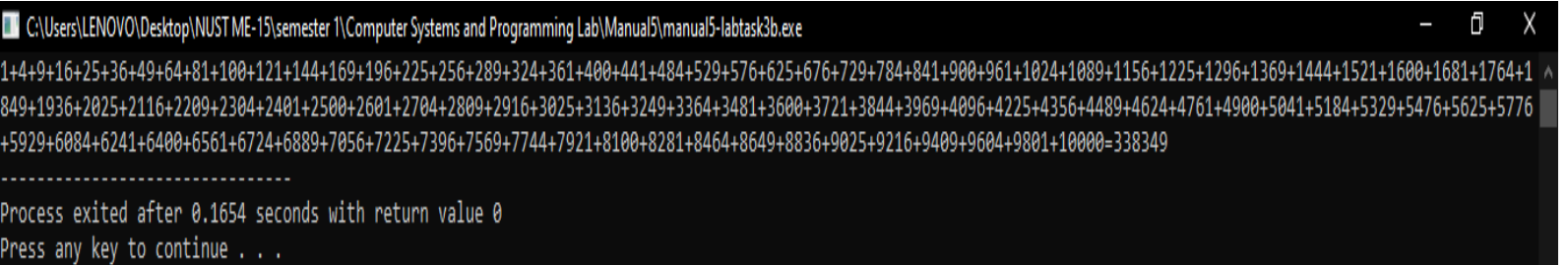
        s = s + sq;

        cout << "+"<<sq;

    }while(y<100);

    cout << "="<<s;

}
```



C:\Users\LENOVO\Desktop\NUST ME-15\semester 1\Computer Systems and Programming Lab\Manual5\manual5-labtask3b.exe

1+4+9+16+25+36+49+64+81+100+121+144+169+196+225+256+289+324+361+400+441+484+529+576+625+676+729+784+841+900+961+1024+1089+1156+1225+1296+1369+1444+1521+1600+1681+1764+1849+1936+2025+2116+2209+2304+2401+2500+2601+2704+2809+2916+3025+3136+3249+3364+3481+3600+3721+3844+3969+4096+4225+4356+4489+4624+4761+4900+5041+5184+5329+5476+5625+5776+5929+6084+6241+6400+6561+6724+6889+7056+7225+7396+7569+7744+7921+8100+8281+8464+8649+8836+9025+9216+9409+9604+9801+10000=338349

Process exited after 0.1654 seconds with return value 0

Press any key to continue . . .

LABTASK 4a:

```
#include<iostream>

#include<math.h>

using namespace std;

int main(){

int res=0,n=0;

do{

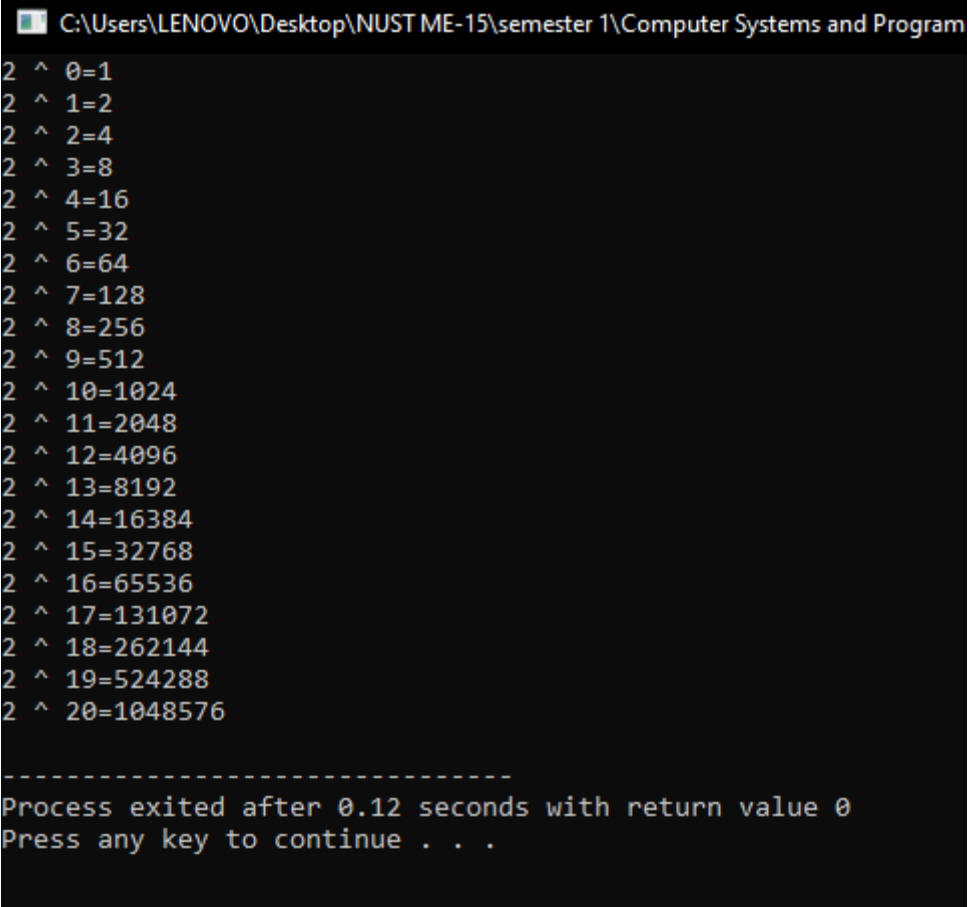
res = pow(2,n);

cout << "2 ^ "<< n << "="<<res<<endl;

n=n+1;

}while( n<=20);

}
```



```
C:\Users\LENOVO\Desktop\NUST ME-15\semester 1\Computer Systems and Program

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=1048576

-----
Process exited after 0.12 seconds with return value 0
Press any key to continue . . .
```


LABTASK 4b:

```
#include <iostream>

using namespace std;

int main(){

int a,b,s=0;

cout<<"Enter the smaller odd number:";

cin>> a;

cout<<"Enter the greater odd number:";

cin>> b;

cout << a;

do{

s = s + a;

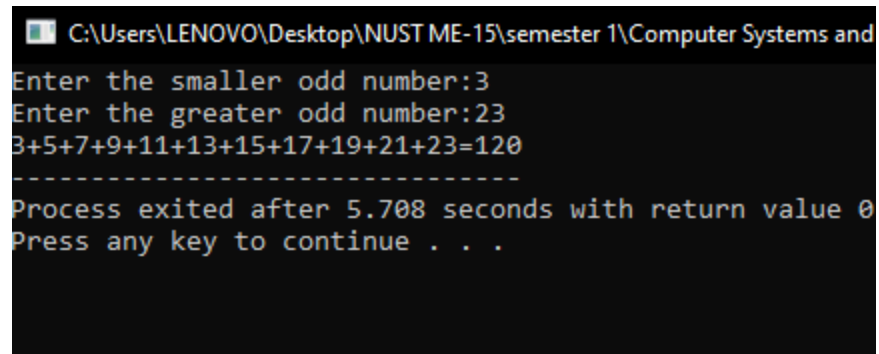
a = a + 2;

cout << "+"<<a;

}while(a<b);

cout << "="<<s;

}
```



```
C:\Users\LENOVO\Desktop\NUST ME-15\semester 1\Computer Systems and...
Enter the smaller odd number:3
Enter the greater odd number:23
3+5+7+9+11+13+15+17+19+21+23=120
-----
Process exited after 5.708 seconds with return value 0
Press any key to continue . . .
```