

Task no_01

```
#include <iostream>
```

```
using namespace std;
```

```
int main()
```

```
{
```

```
    int table_num;
```

```
    cout<<endl<<"Enter any number to prints it's table : ";
```

```
    cin>>table_num;
```

```
    for(int i=1;i<=10;i++)
```

```
        cout<<endl<< table_num <<" x "<< i <<" = "<< table_num*i;
```

```
return 0;
```

}

```
D:\1st sm Programing fundamentals\lab-5 p.f\Question no-01.exe

Enter any number to prints it's table : 14

14 x 1 = 14
14 x 2 = 28
14 x 3 = 42
14 x 4 = 56
14 x 5 = 70
14 x 6 = 84
14 x 7 = 98
14 x 8 = 112
14 x 9 = 126
14 x 10 = 140
-----
Process exited after 3.229 seconds with return value 0
Press any key to continue . . .
```

Task no_02

```
#include <iostream>
```

```
using namespace std;
```

```
int main()
```

```
{
```

```
    int num;
```

```
    cout<<"Enter the range upto the loop should run : ";
```

```
    cin>>num;
```

```
for(int i=1;i<=num;i++)
{

    if(i%2==0)
    {
        cout<<i<<" Even ";
        cout<<endl;
    }

    else if (i%2!=0)
    {
        cout<<i<<" Odd ";
        cout<<endl;
    }

}

return 0;
}
```

```
D:\1st sm Programing fundamentals\lab-5 p.f\Question no-02.exe
Enter the range upto the loop should run : 7
1 Odd
2 Even
3 Odd
4 Even
5 Odd
6 Even
7 Odd

-----
Process exited after 5.815 seconds with return value 0
Press any key to continue . . .
```

Task no_03

```
#include <iostream>
```

```
using namespace std;
```

```
int main()
```

```
{
```

```
    int num;
```

```
    cout<<"Enter the range upto which the loop should run ";
```

```
    cin>>num;
```

```
    for(int i=0 ; i<=num ; i+=2)
```

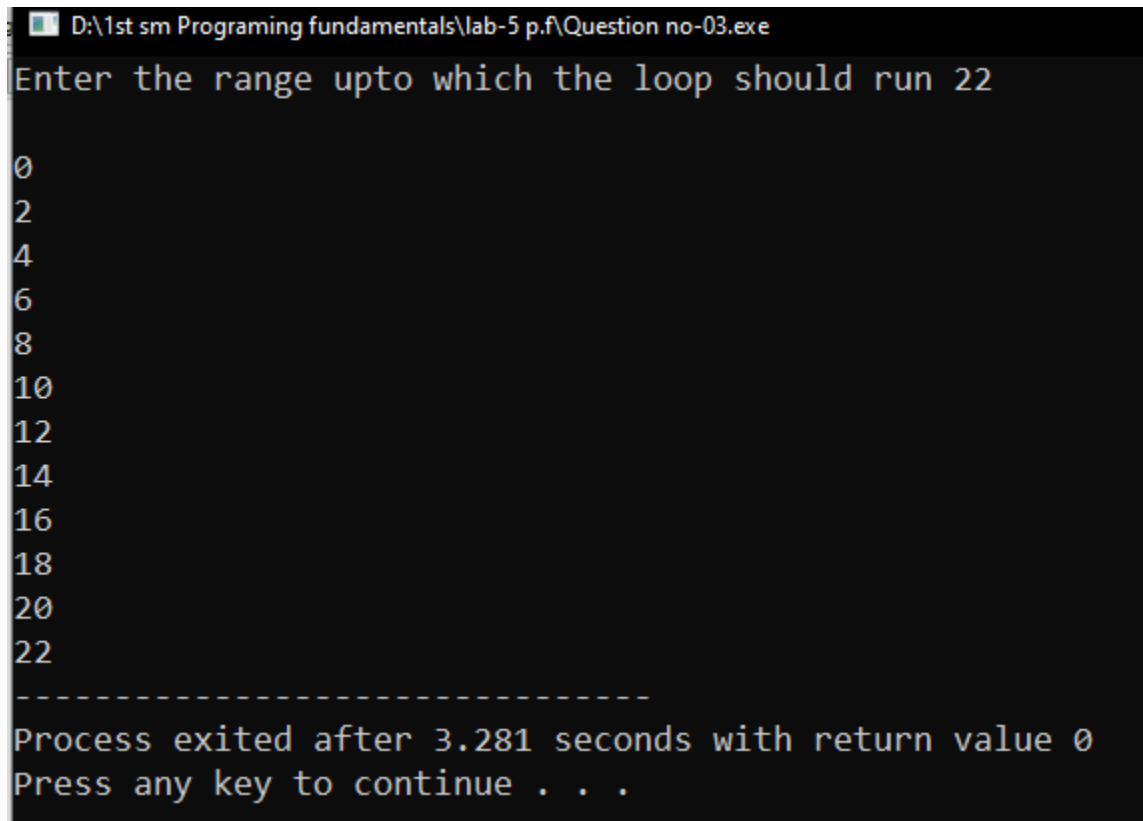
```
    {
```

```
        cout<<endl<<i;
```

```
    }
```

```
return 0;
```

```
}
```



```
D:\1st sm Programing fundamentals\lab-5 p.f\Question no-03.exe
Enter the range upto which the loop should run 22
0
2
4
6
8
10
12
14
16
18
20
22
-----
Process exited after 3.281 seconds with return value 0
Press any key to continue . . .
```

Task no_04

```
#include <iostream>
```

```
using namespace std;
```

```
int main()
```

```
{
```

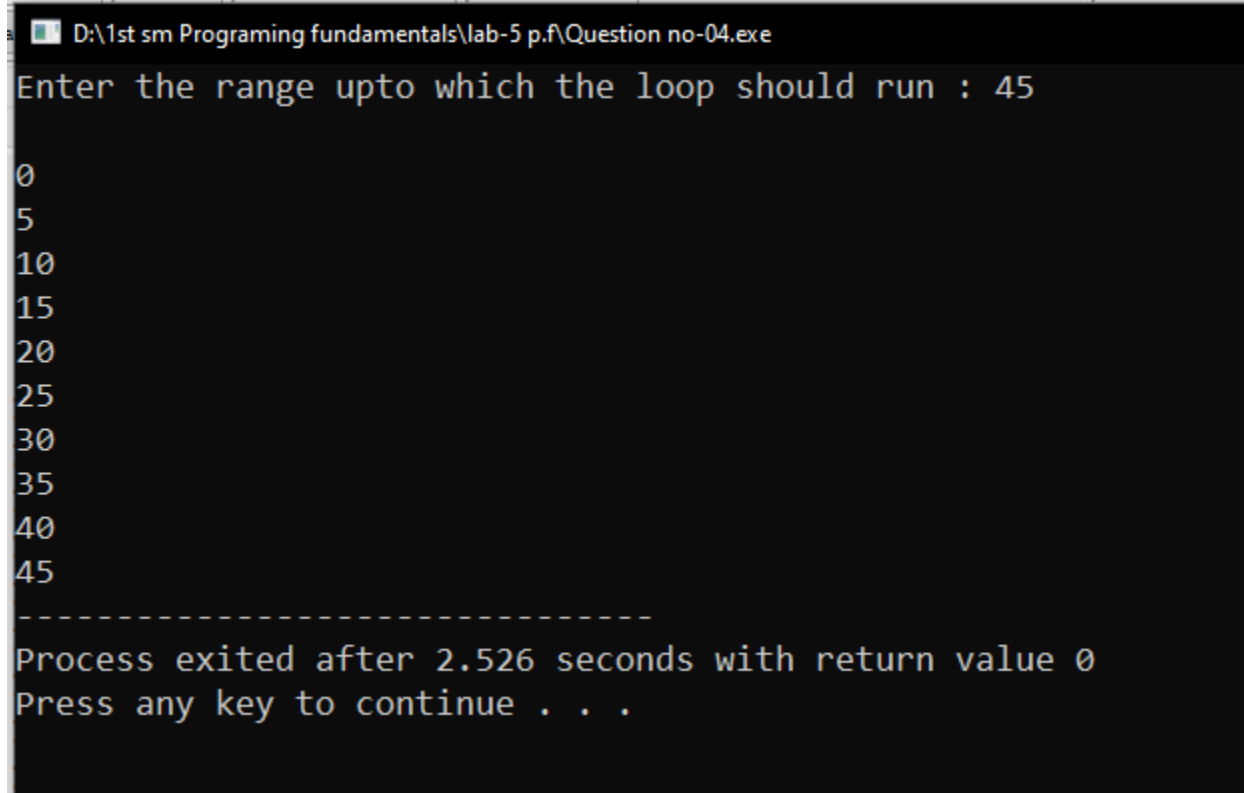
```
    int num;
```

```
    cout<<"Enter the range upto which the loop should run : ";
```

```
    cin>>num;
```

```
    for(int i=0;i<=num;i+=5)
```

```
    {  
        if(num%5==0)  
        {  
            cout<<endl<<i;  
        }  
    }  
  
return 0;  
}
```



```
D:\1st sm Programing fundamentals\lab-5 p.f\Question no-04.exe  
Enter the range upto which the loop should run : 45  
  
0  
5  
10  
15  
20  
25  
30  
35  
40  
45  
  
-----  
Process exited after 2.526 seconds with return value 0  
Press any key to continue . . .
```

Task no_05 a

```
#include <iostream>
```

```
using namespace std;
```

```

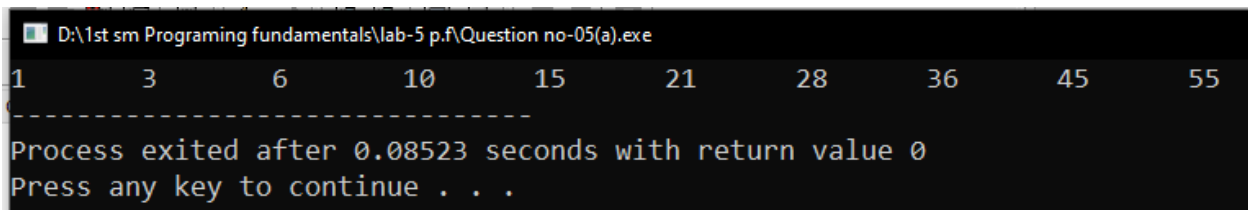
int main()
{
    int sum=0;

    for(int i=1;i<=10;i++)
    {
        sum+=i;
        cout<<sum<<"\t";

    }

    return 0;
}

```



```

D:\1st sm Programing fundamentals\lab-5 p.f\Question no-05(a).exe
1      3      6      10     15     21     28     36     45     55
-----
Process exited after 0.08523 seconds with return value 0
Press any key to continue . . .

```

Task no_05 b

```

#include <iostream>

using namespace std;

```

```

int main()
{
    int sum=0 , i=1 ;

    while(i<=10)
    {
        sum=sum+i;
    }
}

```

```

        cout<<"\t"<<sum;

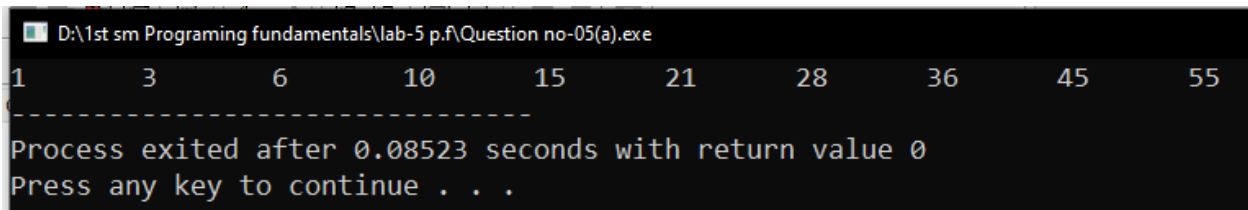
        i++;

    }

return 0;

}

```



```

D:\1st sm Programing fundamentals\lab-5 p.f\Question no-05(a).exe
1      3      6      10     15     21     28     36     45     55
-----
Process exited after 0.08523 seconds with return value 0
Press any key to continue . . .

```

Task no_06

```

#include <iostream>

using namespace std;

int main()
{
    int num=0 , sum=0;

    while(num>=0 && num<=30)
    {
        if(num>=0 && num<=30)
        {
            sum+=num;

            cout<<"Enter any number here : ";

            cin>>num;

        }
    }
}

```



```
    if(num>30)
    {
        cout<<endl<<"Number is greater then 30 and wouldn't be calculated";
        cout<<"\n\nEnter any number here : ";
        cin>>num;
    }
}
```

```
cout<<"\n\n The sum is : " <<sum;
```

```
return 0;
}
```

```
D:\1st sm Programing fundamentals\lab-5 p.f\Question no-06.exe
Enter any number here : 23
Enter any number here : 32

Number is greater then 30 and wouldn't be calculated

Enter any number here : 11
Enter any number here : 34

Number is greater then 30 and wouldn't be calculated

Enter any number here : 11
Enter any number here : 22
Enter any number here : -9

The sum is : 67
-----
Process exited after 15.63 seconds with return value 0
Press any key to continue . . .
```

Task no_07

```
#include <iostream>
```

```
using namespace std;
```

```
int main()
```

```
{
```

```
    int num , a=0 , b=1 , c;
```

```
    for(c=0;c<=35;c=a+b)
```

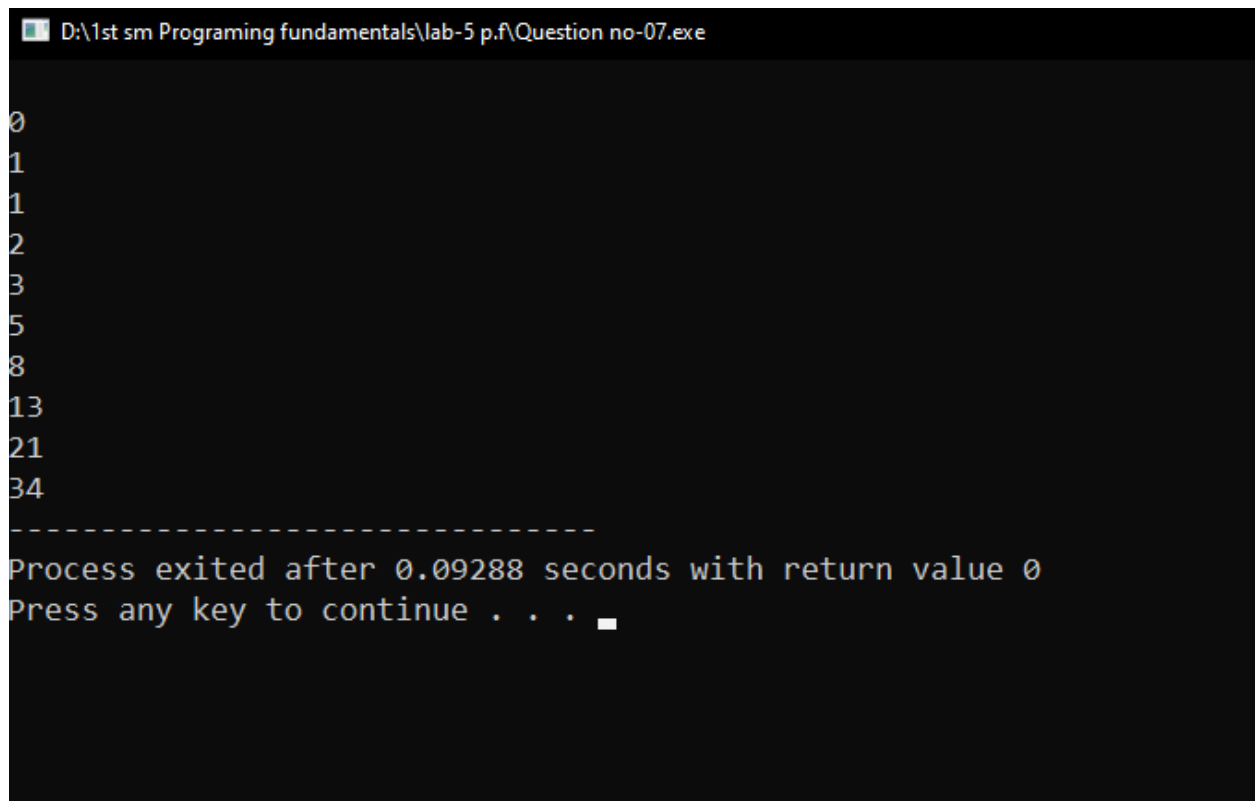
```
    {
```

```
        a=b;
```

```
        b=c;
```

```
        cout<<endl<<c;
    }

    return 0;
}
```



```
D:\1st sm Programing fundamentals\lab-5 p.f\Question no-07.exe
0
1
1
2
3
5
8
13
21
34
-----
Process exited after 0.09288 seconds with return value 0
Press any key to continue . . .
```

Task no_08

```
#include <iostream>
```

```
using namespace std;
```

```
int main()
```

```
{
```

```
    int num , a=0 , b=0 , c=0 ;
```

```

int priceA=0 , priceB=0 , priceC=0 ,quanA=0 , quanB=0 , quanC=0 ;

cout<<"1.Books (per item = 500)";

cout<<endl;

cout<<"2.T-Shirt (per item = 700)";

cout<<endl;

cout<<"3. Shoes (per pair = 1000)";

cout<<endl;

cout<<"0. Exit the program";

cout<<endl;

cout<<"Enter any number to select any product to buy or 0 to exit : ";

cin>>num;


while(num>0 && num <= 3)

{

if(num==1)

{

    cout<<"You have selected books ";

    cout<<"\n Enter Quantity : ";

    cin>>a;

    cout<<endl<<endl;

    quanA+=a;

    priceA=quanA*(500);

    cout<<"1.Books (per item = 500)";

    cout<<endl;

    cout<<"2.T-Shirt (per item = 700)";

    cout<<endl;

    cout<<"3. Shoes (per pair = 1000)";

```

```

        cout<<endl;

        cout<<"0. Exit the program";

        cout<<endl;

        cout<<"Enter any number to select any product to buy or 0 to exit : ";

        cin>>num;

    }

    if(num==2)
    {
        cout<<"You have selected T-Shirt ";

        cout<<"\n Enter Quantity : ";

        cin>>b;

        cout<<endl<<endl;

        quanB+=b;

        priceB=quanB*(700);

        cout<<"1.Books (per item = 500)";

        cout<<endl;

        cout<<"2.T-Shirt (per item = 700)";

        cout<<endl;

        cout<<"3. Shoes (per pair = 1000)";

        cout<<endl;

        cout<<"0. Exit the program";

        cout<<endl;

        cout<<"Enter any number to select any product to buy or 0 to exit : ";

        cin>>num;

    }

```

```

if(num==3)
{
    cout<<"You have selected Shoes ";
    cout<<"\n Enter Quantity : ";
    cin>>c;
    cout<<endl<<endl;
    quanC+=c;
    priceC=quanC*(1000);
    cout<<"1.Books (per item = 500)";
    cout<<endl;
    cout<<"2.T-Shirt (per item = 700)";
    cout<<endl;
    cout<<"3. Shoes (per pair = 1000)";
    cout<<endl;
    cout<<"0. Exit the program";
    cout<<endl;
    cout<<"Enter any number to select any product to buy or 0 to exit : ";
    cin>>num;

}

}

if(num<0)
{
    cout<<endl<<"Invalid entry!!";
}

```

```
}
```

```
cout<<endl<<"You have bought "<< quanA << " Books "<<" (Price "<<priceA<<");
```

```
cout<<endl<<"You have bought "<< quanB << " T-shirts "<<"(Price "<<priceB<<");
```

```
cout<<endl<<"You have bought "<< quanC << " Shoes "<<"(Price "<<priceC<<");
```

```
cout<<endl<<" Total "<<" = "<<priceA+priceB+priceC;
```

```
return 0;
```

```
}
```

D:\1st sm Programing fundamentals\lab-5 p.f\Question no-08.exe

```
1.Books (per item = 500)
2.T-Shirt (per item = 700)
3. Shoes (per pair = 1000)
0. Exit the program
Enter any number to select any product to buy or 0 to exit : 1
You have selected books
Enter Quantity : 2

1.Books (per item = 500)
2.T-Shirt (per item = 700)
3. Shoes (per pair = 1000)
0. Exit the program
Enter any number to select any product to buy or 0 to exit : 1
You have selected books
Enter Quantity : 2

1.Books (per item = 500)
2.T-Shirt (per item = 700)
3. Shoes (per pair = 1000)
0. Exit the program
Enter any number to select any product to buy or 0 to exit : _
```

Task no_9

```
#include <iostream>
```

```
using namespace std;
```

```
int main()
```

```
{
```

```
    char alpha ;
```

```
    for(alpha='Z';alpha>='A';alpha--)
```

```
    {
```

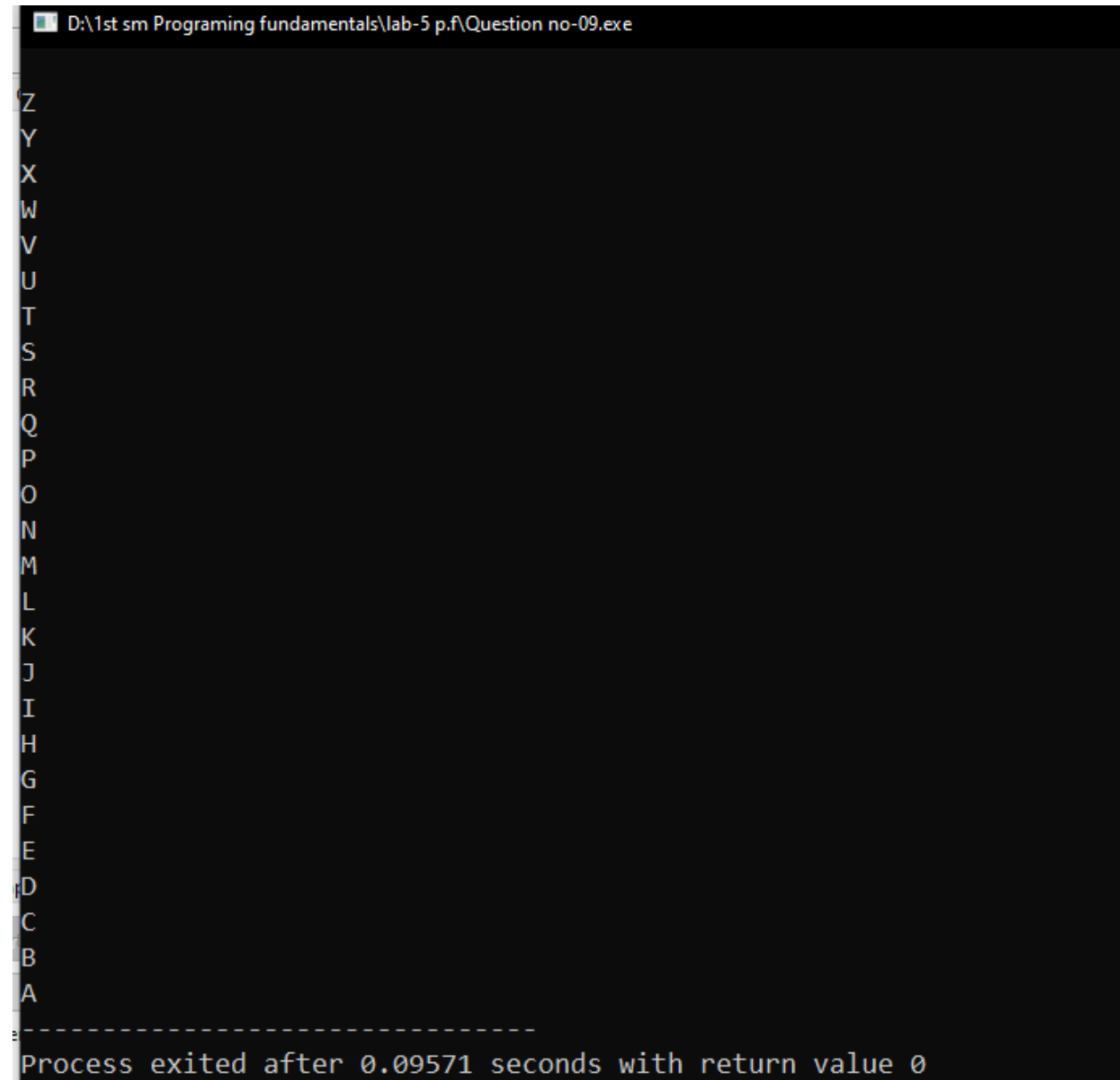
```
        cout<<endl<<alpha;
```



```
}
```

```
return 0;
```

```
}
```



```
D:\1st sm Programing fundamentals\lab-5 p.f\Question no-09.exe
Z
Y
X
W
V
U
T
S
R
Q
P
O
N
M
L
K
J
I
H
G
F
E
D
C
B
A
-----
Process exited after 0.09571 seconds with return value 0
```

Task no_10

```
#include <iostream>
```

```
using namespace std;
```

```
int main()
{
    char alpha ;
    for(alpha='Z';alpha>='A';alpha--)
    {
        if(alpha!='A'&&alpha!='E'&&alpha!='I'&&alpha!='O'&&alpha!='U')
        {
            cout<<endl<<alpha;
        }
    }

    return 0;
}
```

```
D:\1st sm Programing fundamentals\lab-5 p.f\Question no-10.exe

Z
Y
X
W
V
T
S
R
Q
P
N
M
L
K
J
H
G
F
D
C
B
-----
Process exited after 0.1027 seconds with return value 0
Press any key to continue . . .
```

Task no_11

```
#include <iostream>
```

```
using namespace std;
```

```
int main()
```

```
{
```

```
    int num;
```

```
    cout<<"How many numbers do you have?> ";
```

```
cin>>num;
```

```
if(num<0)
```

```
{
```

```
cout<<"Sorry, you have entered an invalid input.";
```

```
cout<<"\nThank-you.";
```

```
}
```

```
if(num==0)
```

```
{
```

```
cout<<"Opps, you don't have any number for me to process.";
```

```
cout<<"\nThank-you.";
```

```
}
```

```
if(num>0)
```

```
{
```

```
    float a, max , min;
```

```
    int inp ;
```

```
    for(inp=1;inp<=num;inp++)
```

```
    {
```

```
        cout<<"Please enter a number_"<<inp<<" --> ";
```

```
        cin>>a;
```

```
        if(inp==1)
```

```
        {
```

```
            min=a;
```

```
            max=a;
```

```
        }
```

```
        if(a<min)
        {
            min=a;
        }
        if(a>max)
        {
            max=a;
        }
    }
```

```
        cout<<endl<<"The greatest number is "<<max<<endl;
        cout<<endl<<"The smallest number is "<<min<<endl;
    }
```

```
return 0;
}
```

```
D:\1st sm Programing fundamentals\lab-5 p.f\Question no11.exe
How many numbers do you have?> 4
Please enter a number_1 --> 1.1
Please enter a number_2 --> -2.2
Please enter a number_3 --> 3.9
Please enter a number_4 --> 67

The greatest number is 67

The smallest number is -2.2

-----
Process exited after 14.53 seconds with return value 0
Press any key to continue . . .
```

Task no_12

```
#include <iostream>
```

```
using namespace std;
```

```
int main()
```

```
{
```

```
    cout<<"\t\t\t Welcome to number guessing program";
```

```
    cout<<endl;
```

```
    int O_no=235 , G_no;
```

```
    cout<<"Guess a number to see the original number : ";
```

```
    cin>>G_no;
```

```
    while(G_no!=O_no)
```

```
    {
```

```
        if(G_no<O_no)
```

```
        {
```

```
        cout<<"\n entered number is smaller than the actual number";
        cout<<"\n \n Guess a number to see the original number : ";
        cin>>G_no;
    }

    if(G_no>O_no)
    {
        cout<<"\n entered number is larger than the actual number";
        cout<<"\n \n Guess a number to see the original number : ";
        cin>>G_no;
    }
}

if(G_no==O_no)
{
    cout<<"\nCongrats! You Get it.";
}

return 0;
}
```

```
D:\1st sm Programing fundamentals\lab-5 p.f\Question no 12.exe
Welcome to number guessing program
Guess a number to see the original number : 12
entered number is smaller than the actual number
Guess a number to see the original number : 13
entered number is smaller than the actual number
Guess a number to see the original number : 678
entered number is larger than the actual number
Guess a number to see the original number : 345
entered number is larger than the actual number
Guess a number to see the original number : 235
Congrats! You Get it.
-----
Process exited after 11.33 seconds with return value 0
Press any key to continue . . .
```

Task no_13

```
#include <iostream>
```

```
using namespace std;
```

```
int main()
```

```
{
```

```
    cout<<"\t\t\t\t Welcome to number guessing program\n";
```

```
    cout<<"\n You have five guesses to guess the number between (1-100) Other wise the number  
will be shown";
```

```
    cout<<endl<<endl;
```



```
int O_no=93 , G_no , guesses=1;

cout<<"Guess a number between (1-100) to see the original number : ";

cin>>G_no;


while(G_no!=O_no && guesses<5)
{
    if(G_no<O_no)
    {
        cout<<"\n entered number is smaller than the actual number"<<endl<<endl;
        cout<<"Guess a number between (1-100) to see the original number : ";
        cin>>G_no;
        guesses++;
    }

    if(G_no>O_no)
    {
        cout<<"\n entered number is larger than the actual number"<<endl<<endl;
        cout<<"Guess a number between (1-100) to see the original number : ";
        cin>>G_no;
        guesses++;
    }
}


if(guesses>=5)
{
    cout<<"\n Sorry "<<" The right number was : "<<O_no;
}
```

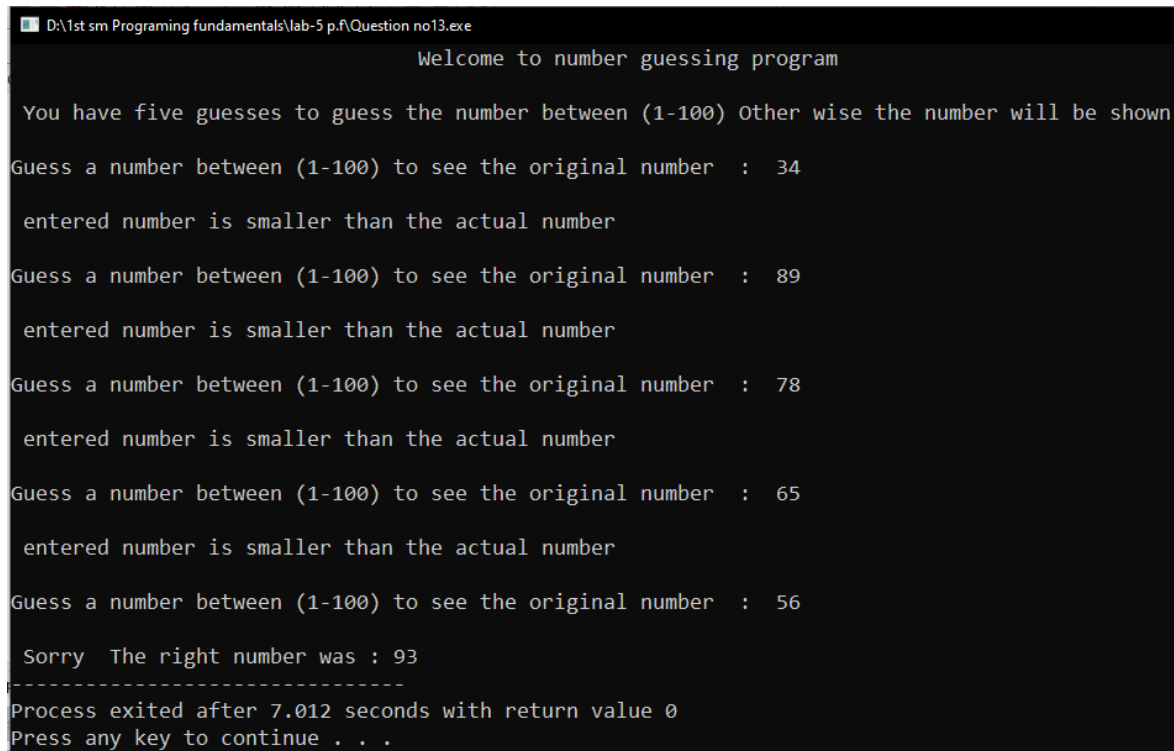
```

        if(G_no==O_no)
        {
            cout<<"\nCongrats! You Get it.";
        }

return 0;

}

```



The screenshot shows a Windows command prompt window titled "D:\1st sm Programing fundamentals\lab-5 p.f\Question no13.exe". The program output is as follows:

```

Welcome to number guessing program

You have five guesses to guess the number between (1-100) Other wise the number will be shown

Guess a number between (1-100) to see the original number : 34
entered number is smaller than the actual number

Guess a number between (1-100) to see the original number : 89
entered number is smaller than the actual number

Guess a number between (1-100) to see the original number : 78
entered number is smaller than the actual number

Guess a number between (1-100) to see the original number : 65
entered number is smaller than the actual number

Guess a number between (1-100) to see the original number : 56

Sorry The right number was : 93
-----
Process exited after 7.012 seconds with return value 0
Press any key to continue . . .

```