

C++ ASSIGNMENT 1.2

1. WAP for printing all natural numbers till 20.

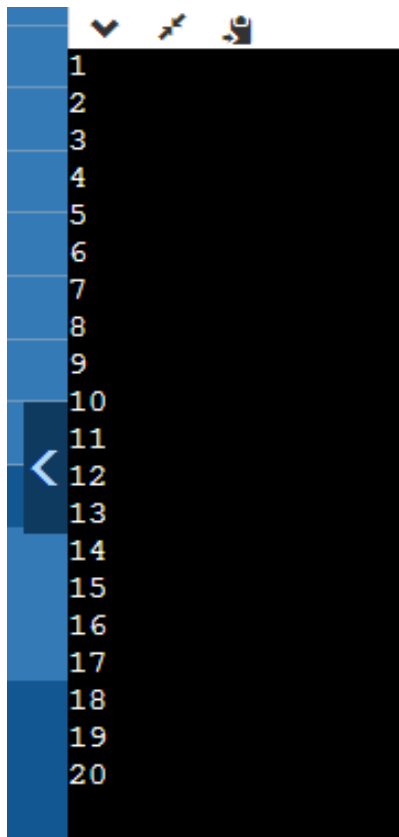
```
#include<iostream>

using namespace std;

int main()

{
for(int a=1;a<=20;a++)

{
    cout<<a<<"\n";
}
return 0;
}
```



2. WAP for printing all natural numbers in reverse order starting from 20.

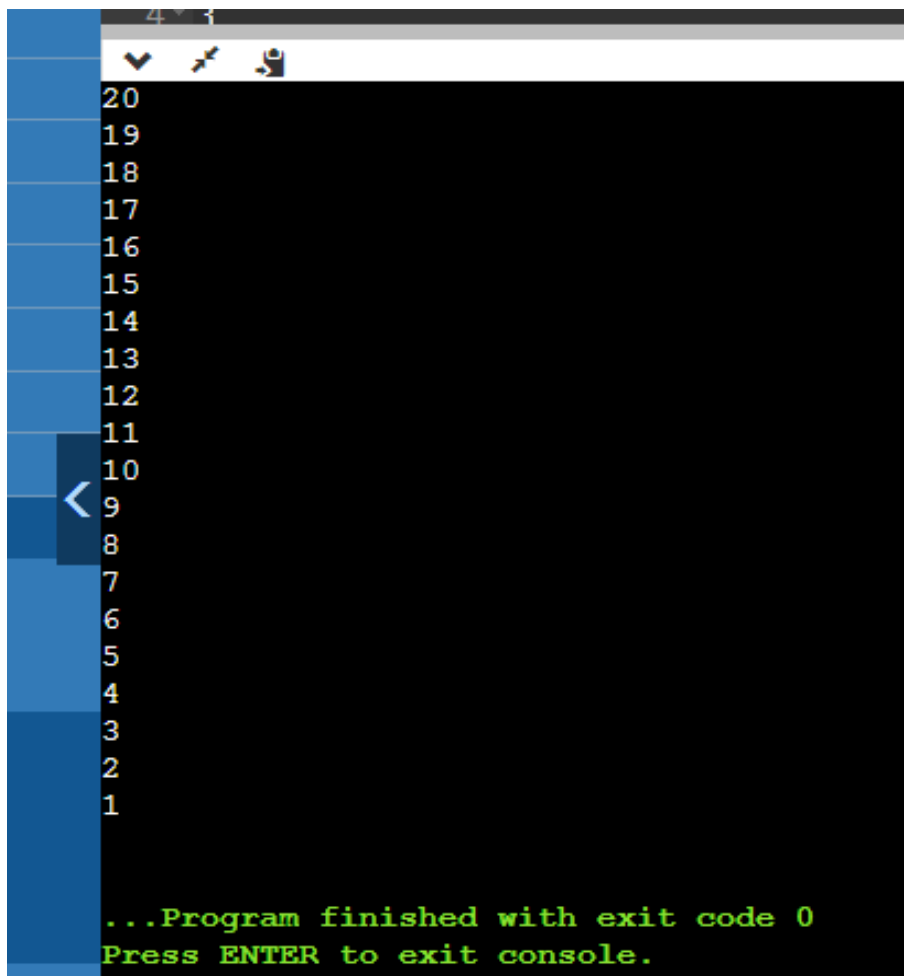
```
#include<iostream>

using namespace std;

int main()

{
for(int a=20;a>=1;a--)

{
    cout<<a<<"\n";
}
return 0;
}
```



```
4 v 3
20
19
18
17
16
15
14
13
12
11
10
9
8
7
6
5
4
3
2
1
...Program finished with exit code 0
Press ENTER to exit console.
```

3. WAP for printing all even numbers from 1 to 20.

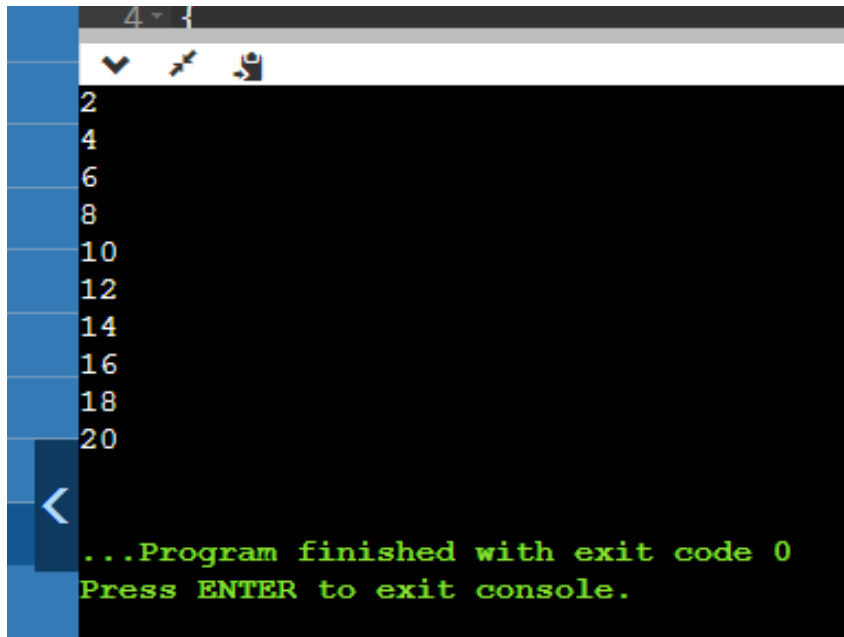
```
#include<iostream>

using namespace std;

int main()
{
    for(int a=1;a<=20;a++)
    {
        if((a%2)==0)
            cout<<a<<"\n";
    }
}
```

```
return 0;

}
```



```
2
4
6
8
10
12
14
16
18
20

...Program finished with exit code 0
Press ENTER to exit console.
```

4. WAP for printing all odd numbers from 1 to 20.

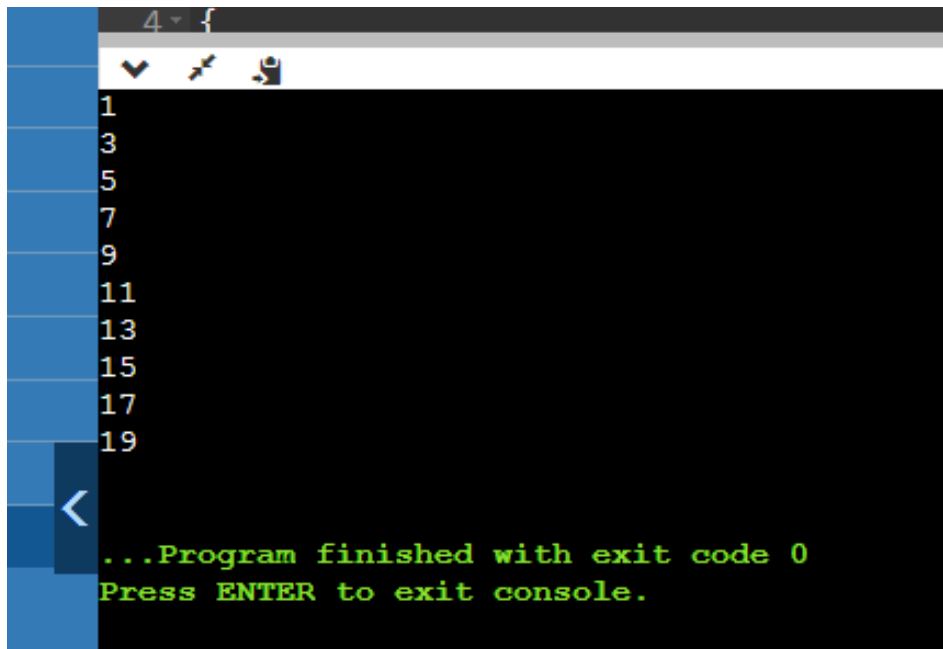
```
#include<iostream>

using namespace std;

int main()

{
for(int a=1;a<=20;a++)
{
    if((a%2)!=0)
        cout<<a<<"\n";
}
return 0;

}
```

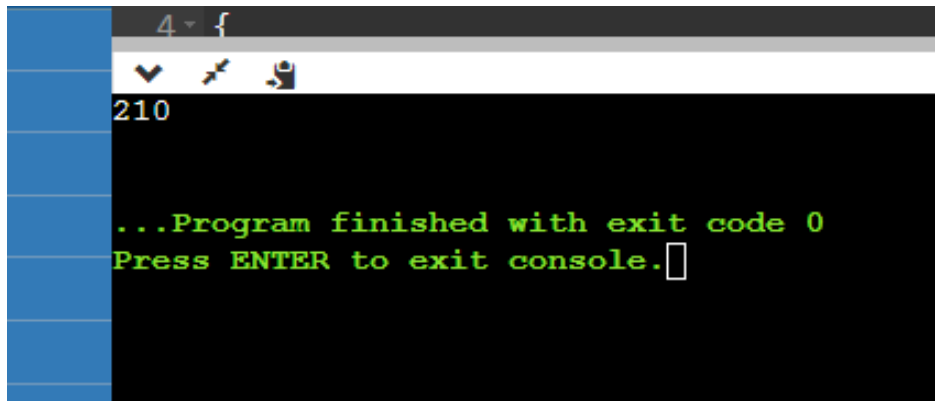


```
4 {  
1  
3  
5  
7  
9  
11  
13  
15  
17  
19  
...Program finished with exit code 0  
Press ENTER to exit console.
```

5. WAP for adding all numbers from 1 to 20.

```
#include<iostream>  
  
using namespace std;  
  
int main()  
{  
    int a,b,c;  
    for(int a=0;a<=20;a++)  
    {  
  
        b=b+a;  
  
    }  
}
```

```
cout<<b<<"\n";  
return 0;  
}
```



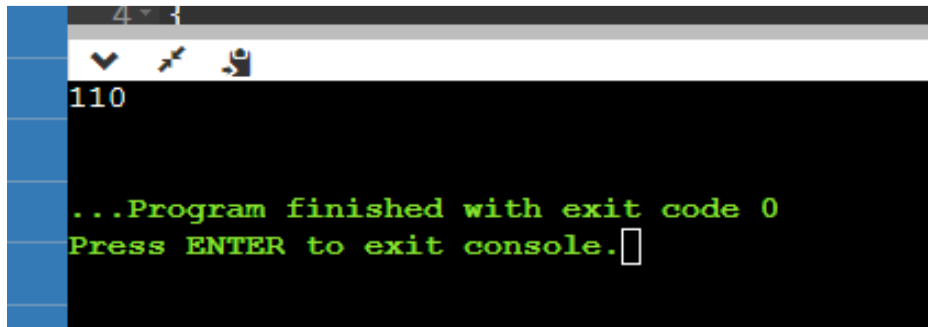
6. WAP for finding sum of all even numbers till 20.

```
#include<iostream>  
using namespace std;  
int a,b,c;  
int main()  
{  
for(int a=0;a<=20;a++)  
{  
  
if(a%2==0)  
b=b+a;  
  
}
```

```
cout<<b<<"\n";
```

```
return 0;
```

```
}
```



```
4 }  
110  
...Program finished with exit code 0  
Press ENTER to exit console.
```

7. WAP for finding sum of all odd numbers till 20.

```
#include<iostream>
```

```
using namespace std;
```

```
int a,b,c;
```

```
int main()
```

```
{
```

```
for(int a=0;a<=20;a++)
```

```
{
```

```
if(a%2!=0)
```

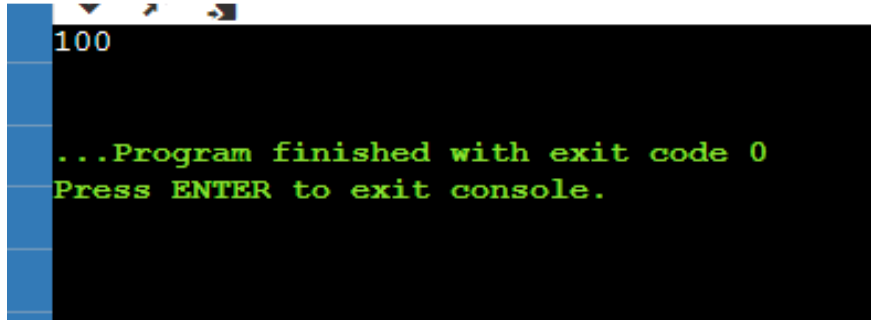
```
b=b+a;
```

```
}
```

```
cout<<b<<"\n";
```

```
return 0;

}
```



8. WAP for printing multiplication table of a number. For eg. Display should be “ 2 X 1 = 2”.

```
#include<iostream>
```

```
using namespace std;
```

```
int main()
```

```
{
```

```
int a,b,c;
```

```
cout<<"Enter the number to get the table  \t";
```

```
cin>>a;
```

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

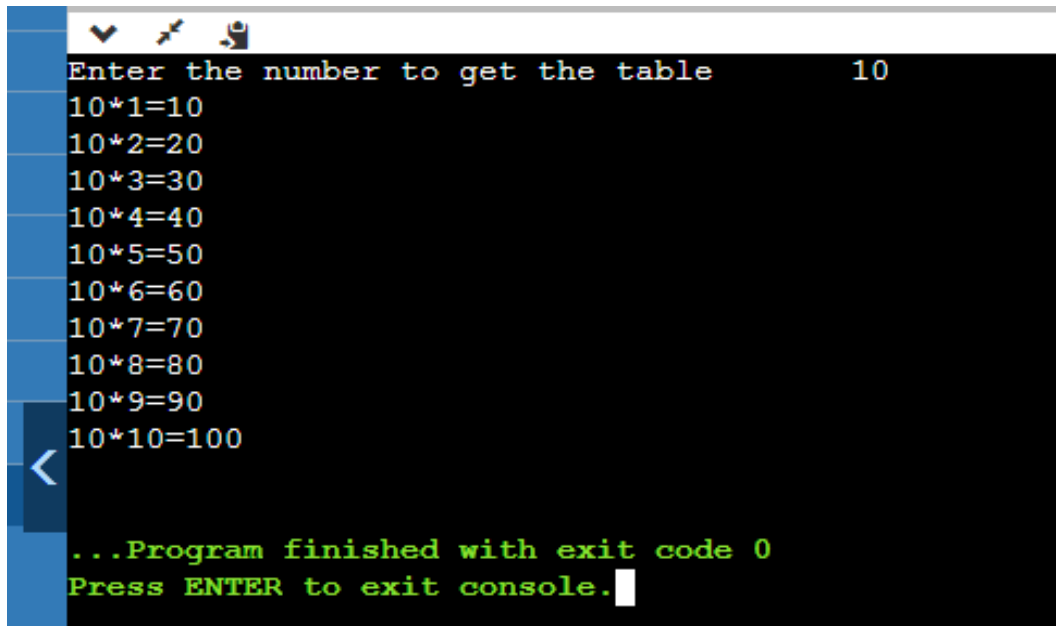
```
{
```

```
    cout<<a<<"*"<<i<<"="<<a*i<<"\n";
```

```
}
```

```
return 0;
```


}



```
Enter the number to get the table      10
10*1=10
10*2=20
10*3=30
10*4=40
10*5=50
10*6=60
10*7=70
10*8=80
10*9=90
10*10=100

...Program finished with exit code 0
Press ENTER to exit console.
```

9. WAP to calculate factorial of a number.

```
#include<iostream>

using namespace std;

int main()
{
    int a,b,c=1;

    cout<<"Enter the number to get the factorial of a number  \t";

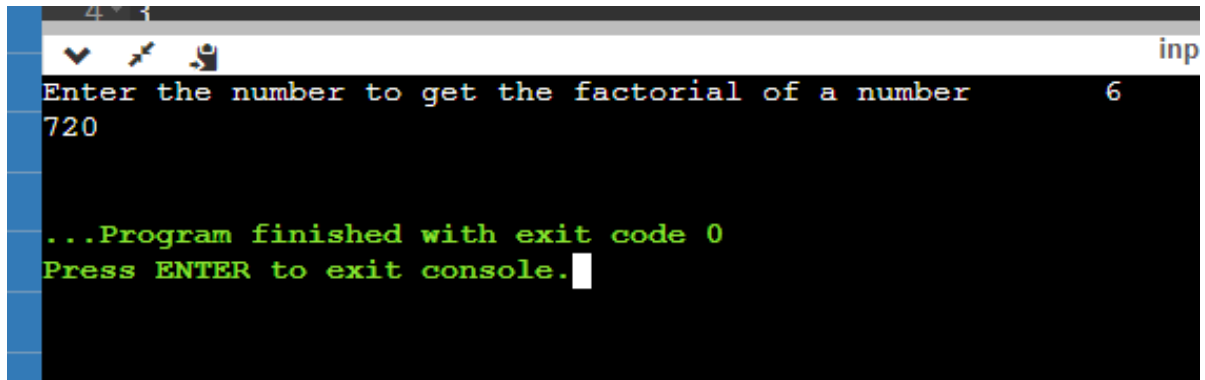
    cin>>b;

    for(int i=1;i<=b;i++)
    {
        c=c*i;
    }
}
```

```
cout<<c<<"\n";
```

```
return 0;
```

```
}
```



```
4 - 3 inp
Enter the number to get the factorial of a number 6
720
...Program finished with exit code 0
Press ENTER to exit console.
```

10. WAP to check whether a number is prime or not.

```
#include<iostream>
```

```
using namespace std;
```

```
int main()
```

```
{
```

```
int flag=1,b,i;
```

```
cout<<"Enter the number to get the answer that it is prime or not \t";
```

```
cin>>b;
```

```
for(i=2;i<b;i++)
```

```
{if(b%i==0)
```

```
{
```

```
flag=0;
```

```

    break;
}
}
if (flag)

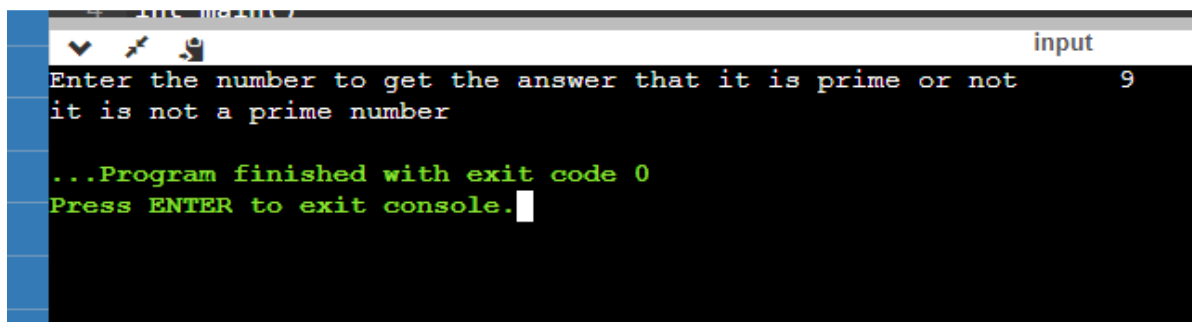
cout<<"it is a prime number";

else

cout<<"it is not a prime number";

return 0;
}

```



```

input
Enter the number to get the answer that it is prime or not    9
it is not a prime number

...Program finished with exit code 0
Press ENTER to exit console.

```

11. WAP to print all digits of a number and their sum.

```

#include<iostream>

using namespace std;

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

cout<<"Enter the number to get sum of all its digits \t";

cin>>num;

while(num>0)

```

```

{
    b=num%10;

    sum=sum+b;


    num=num/10;
}

cout<<sum;

return 0;

}

```

The screenshot shows a terminal window with a black background. The first line of text is "Enter the number to get sum of all its digits" in a light blue font, followed by the number "2534789" in a light blue font. The second line shows the output "38" in a light blue font. The third line shows the message "...Program finished with exit code 0" in a light green font. The fourth line shows the message "Press ENTER to exit console." in a light green font, followed by a white cursor icon.

12. WAP to print reverse of a number.

```

#include<iostream>

using namespace std;

int main()

{

int num,sum=0,b;

cout<<"Enter the number to get sum of all its digits \t";


cin>>num;

while(num>0)

{

    b=num%10;

```

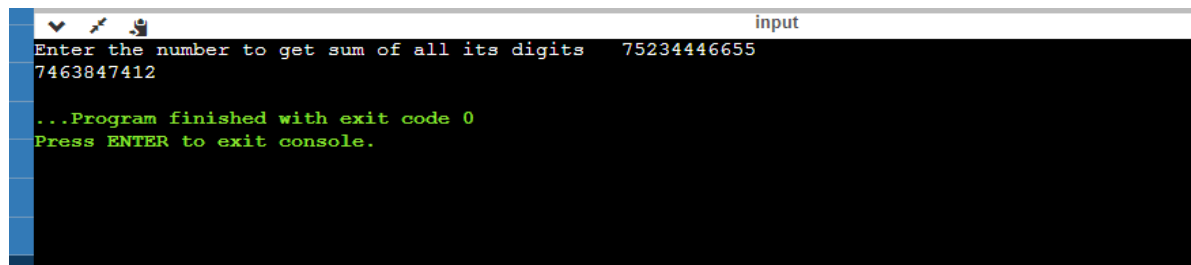
```
num=num/10;
```

```
cout<<b;
```

```
}
```

```
return 0;
```

```
}
```



```
input
Enter the number to get sum of all its digits  75234446655
7463847412
...Program finished with exit code 0
Press ENTER to exit console.
```

13. WAP to check whether the number is Armstrong or not.

```
#include<iostream>
```

```
using namespace std;
```

```
int main()
```

```
{
```

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

```
cout<<"Enter the number to check whether the number is Armstrong or not--- \t";
```

```
cin>>num;
```

```
c=num;
```

```
while(num>0)
```

```
{
```

```
b=num%10;
```

```
a=b*b*b;
```

```

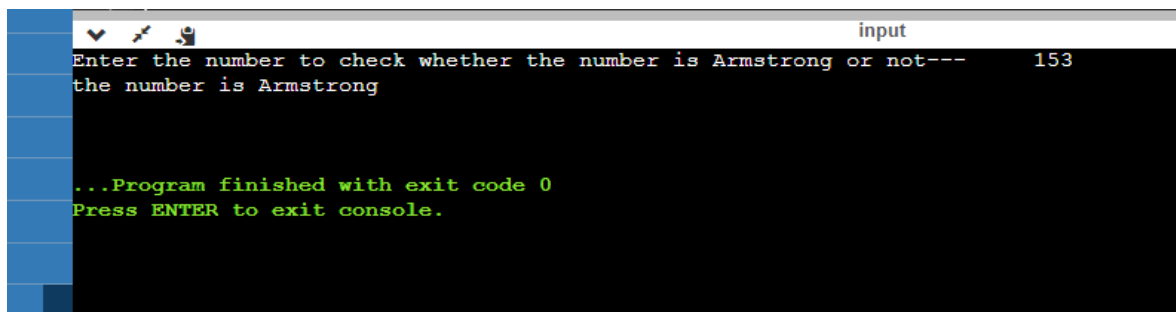
sum=sum+a;

num=num/10;
}
if(sum==c)
{
    cout<<"the number is Armstrong"<<endl;
}
else
{
    cout<<" the number is not Armstrong ";
}

    cout<<endl;

return 0;
}

```



```

input
Enter the number to check whether the number is Armstrong or not--- 153
the number is Armstrong

...Program finished with exit code 0
Press ENTER to exit console.

```

14. WAP to print the Fibonacci series in a given range.

```
#include<iostream>
```

```
using namespace std;
```

```
int main()
```

```

{
int a=0,sum,b=1,c;

sum=a+b;

cout<<"Enter the number upto which you want to print fibonacci series start from 0";

cin>>c;

cout<<a<<"\t"<<b<<"\t";

for(int i=3;i<=c;i++)

{cout<<sum<<"\t";

a=b;

b=sum;

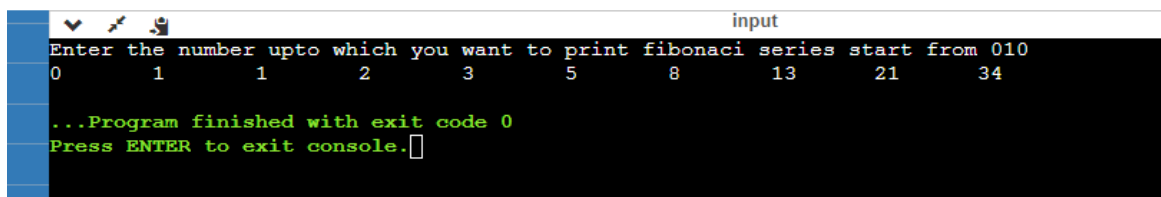
sum=a+b;

}

return 0;

}

```



```

input
Enter the number upto which you want to print fibonacci series start from 010
0      1      1      2      3      5      8      13      21      34

...Program finished with exit code 0
Press ENTER to exit console.

```

15. WAP to check whether the number entered is palindrome or not.

```

#include<iostream>

using namespace std;

int main()

{

int i=0,a,b,c,d,sum=0;

```

```
cout<<"Enter the number to check number is plaine or not  \t";
```

```
cin>>c;
```

```
d=c;
```

```
while(0<c)
```

```
{
```

```
    b=c%10;
```

```
    sum=sum*10+b;
```

```
    c=c/10;
```

```
    i++;
```

```
}
```

```
if(sum==d)
```

```
{
```

```
    cout<<"number is plaine";
```

```
}
```

```
else
```

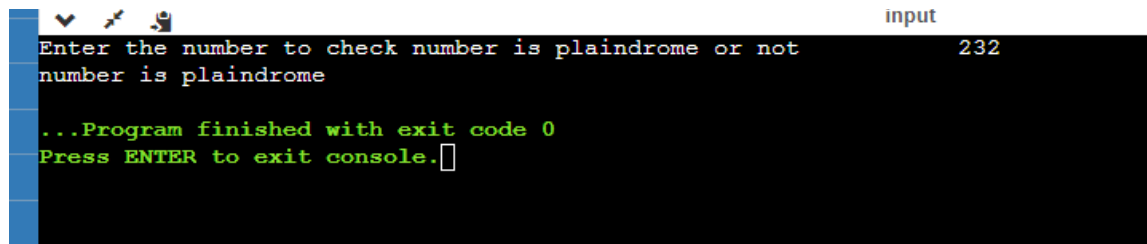
```
{
```

```
    cout<<"number is not plaine";
```

```
}
```

```
return 0;
```

```
}
```

A terminal window with a black background and white text. The window has a title bar with three icons on the left and the word "input" on the right. The text inside the terminal shows a program that prompts the user to enter a number to check if it is a palindrome. The user has entered "232", and the program has responded "number is plaindrome". The program then displays a green message: "...Program finished with exit code 0" and "Press ENTER to exit console." followed by a cursor.

```
input
Enter the number to check number is plaindrome or not      232
number is plaindrome

...Program finished with exit code 0
Press ENTER to exit console.█
```