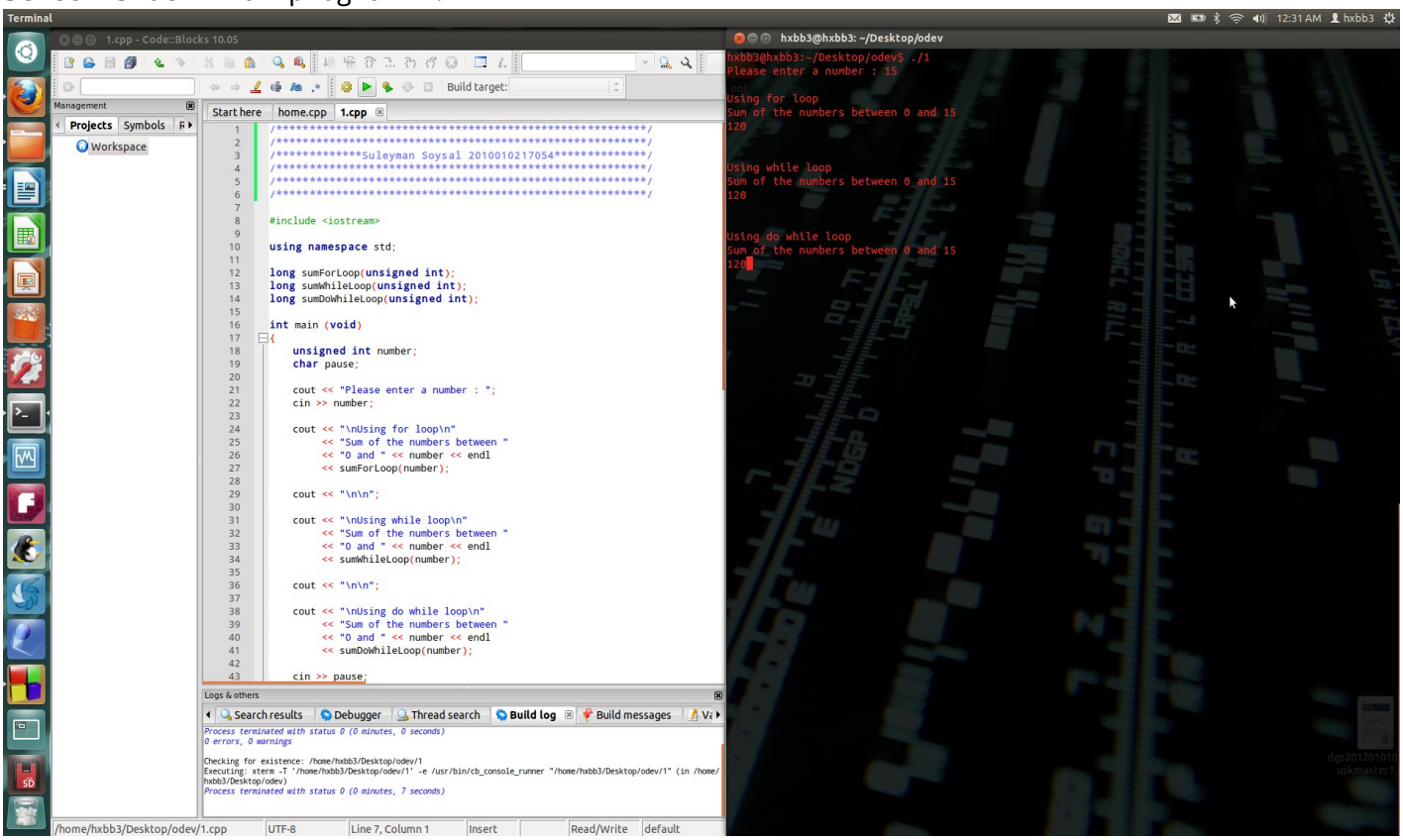
Answer 1 : Calculate to sum of the numbers between 0 and entered number.

Source Code :

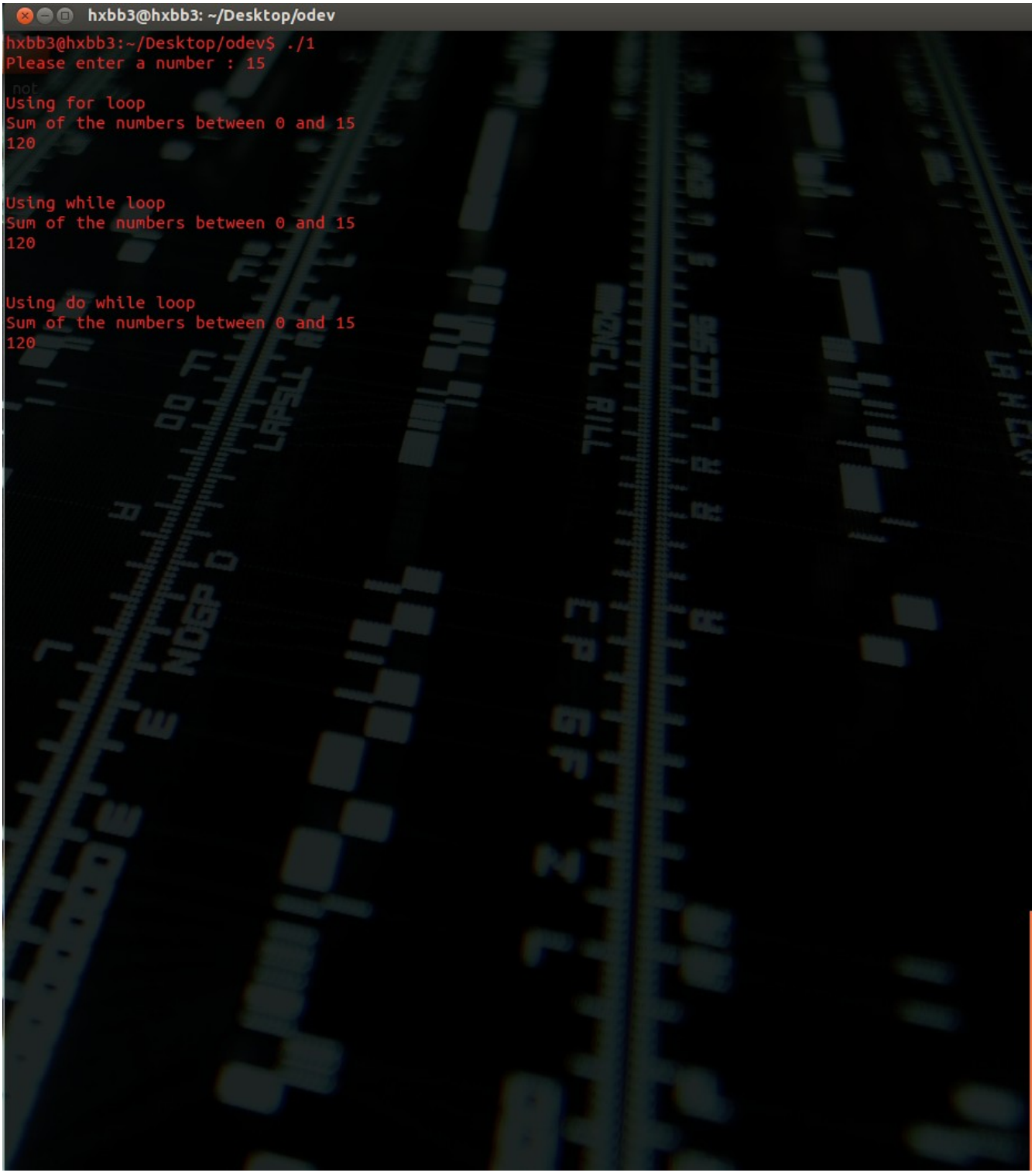
```
 1  /*********************************************************/
 2  /*********************************************************/
 3  /*************titaNWare***********************************/
 4  /********************x_titanyum_x@hotmail.com***********
 5  /*********************************************************/
 6  /*********************************************************/
 7
 8  #include <iostream>
 9
10  using namespace std;
11
12  long sumForLoop(unsigned int);
13  long sumWhileLoop(unsigned int);
14  long sumDoWhileLoop(unsigned int);
15
16  int main (void)
17  {
18      unsigned int number;
19      char pause;
20
21      cout << "Please enter a number : ";
22      cin >> number;
23
24      cout << "for loop"
25           << "Sum of the numbers between "
26           << "0 and " << number << endl
27           << sumForLoop(number);
28
29      cout << "";
30
31      cout << "while loop"
32           << "Sum of the numbers between "
33           << "0 and " << number << endl
34           << sumWhileLoop(number);
35
36      cout << "";
37
38      cout << "do while loop"
39           << "Sum of the numbers between "
40           << "0 and " << number << endl
41           << sumDoWhileLoop(number);
42
43      cin >> pause;
44      return 0;
45  }
46
47  long sumForLoop(unsigned int number)
48  {
49      unsigned int counter;
50      long sum=0;
51
52      for(counter=number;counter>0;counter--)
53      {
54          sum += counter;
55      }
56      return sum;
57  }
58
59  long sumWhileLoop(unsigned int number)
60  {
61      unsigned int counter;
62      long sum=0;
63
64      counter=number;
65      while(counter > 0)
66      {
67          sum += counter;
68          counter--;
69      }
70      return sum;
71  }
```

```
72
73  long sumDoWhileLoop(unsigned int number)
74  {
75      unsigned int counter;
76      long sum=0;
77
78      counter = number;
79      do
80      {
81          sum += counter;
82          counter--;
83      }while(counter > 0);
84
85      return sum;
86  }
87
88
89
90
```

Screen shot 1 for program 1:



Screen shot for program 1 :



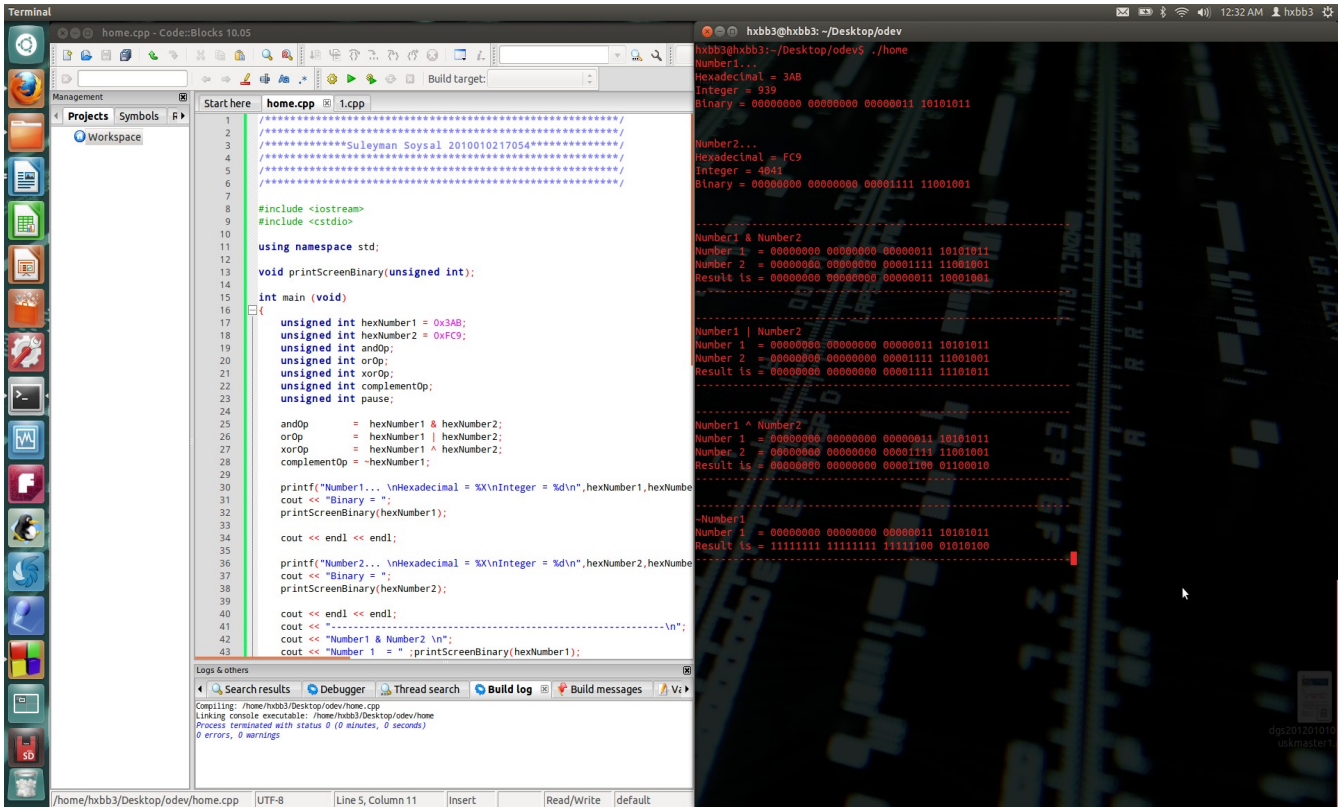
Answer 2 : Calculate x&y , x^y ,x|y , ~x for x=3AB and y=FC9.

Source code :

```cpp
/*********************************************************/
/*********************************************************/
/********titaNWare*************************************/
/*******************x_titanyum_x@hotmail.com************/
/*********************************************************/
/*********************************************************/

#include <iostream>
#include <cstdio>

using namespace std;

void printScreenBinary(unsigned int);

int main (void)
{
    unsigned int hexNumber1 = 0x3AB;
    unsigned int hexNumber2 = 0xFC9;
    unsigned int andOp;
    unsigned int orOp;
    unsigned int xorOp;
    unsigned int complementOp;
    unsigned int pause;

    andOp        =  hexNumber1 & hexNumber2;
    orOp         =  hexNumber1 | hexNumber2;
    xorOp        =  hexNumber1 ^ hexNumber2;
    complementOp = ~hexNumber1;

    printf("Number1... = %X= %d",hexNumber1,hexNumber1);
    cout << "Binary = ";
    printScreenBinary(hexNumber1);

    cout << endl << endl;

    printf("Number2... = %X= %d",hexNumber2,hexNumber2);
    cout << "Binary = ";
    printScreenBinary(hexNumber2);

    cout << endl << endl;
    cout << "------------------------------------------------------------";
    cout << "Number1 & Number2 ";
    cout << "Number 1  = " ;printScreenBinary(hexNumber1);
    cout << "Number 2  = " ;printScreenBinary(hexNumber2);
    cout << "Result is = ";printScreenBinary(andOp);
    cout << "------------------------------------------------------------";

    cout << endl << endl;
    cout << "------------------------------------------------------------";
    cout << "Number1 | Number2 ";
    cout << "Number 1  = " ;printScreenBinary(hexNumber1);
    cout << "Number 2  = " ;printScreenBinary(hexNumber2);
    cout << "Result is = ";printScreenBinary(orOp);
    cout << "------------------------------------------------------------";

    cout << endl << endl;
    cout << "------------------------------------------------------------";
    cout << "Number1 ^ Number2 ";
    cout << "Number 1  = " ;printScreenBinary(hexNumber1);
    cout << "Number 2  = " ;printScreenBinary(hexNumber2);
    cout << "Result is = ";printScreenBinary(xorOp);
    cout << "------------------------------------------------------------";

    cout << endl << endl;
    cout << "------------------------------------------------------------";
    cout << "~Number1";
    cout << "Number 1  = " ;printScreenBinary(hexNumber1);
    cout << "Result is = ";printScreenBinary(complementOp);
    cout << "------------------------------------------------------------";

```

```
71      cin >> pause;
72      return 0;
73  }
74
75  void printScreenBinary(unsigned int number)
76  {
77      unsigned int counter;
78      unsigned int mask = 1 << 31;
79
80      for(counter=1;counter<=32;counter++)
81      {
82          if(number & mask) cout << "1";
83          else cout << "0";
84          number <<=1;
85
86          if(counter % 8 == 0)
87          cout << " ";
88      }
89      cout << "";
90  }
91
92
```

Screen shot for program 2 :



Screen shot 2 for program 2 :