

```

1  #include<iostream>
2  using namespace std;
3
4  int main()
5  {
6
7      //Declaring and initializing input lines
8      int inputI0 = 0,inputI1 = 1,inputI2 = 3,inputI3 = 3, inputI4 = 4, inputI5 = 5, inputI6 = 6, inputI7 = 7;
9
10     //Declaring and initializing select lines
11     int s0=0, s1=0, s2 =0;
12
13     //Declaring and initializing output line
14     int outputF=0;
15
16
17     //Using If Else logic to implement 8x1 MUX
18
19     if(s0 == 0)
20     {
21         if(s1 == 0)
22         {
23             if(s2 == 0)
24                 outputF = inputI0;
25
26             else
27                 outputF = inputI1;
28         }
29
30         else
31         {
32             if(s2 == 0)
33                 outputF = inputI2;
34
35             else
36                 outputF = inputI3;
37         }
38     }
39     else
40     {
41         if(s1 == 0)
42         {
43             if(s2 == 0)
44                 outputF = inputI4;
45
46             else
47                 outputF = inputI5;
48         }
49
50         else
51         {
52             if(s2 == 0)
53                 outputF = inputI6;
54
55             else
56                 outputF = inputI7;
57         }
58     }
59
60 }
61
62 cout<<"Output="<<outputF;
63
64 return 0;
65 }

```