

```

1  #ifndef GATE_H
2  #define GATE_H
3
4  #include <queue>
5  #include "Wire.h"
6  #include "Event.h"
7
8  class Wire;
9
10 class Gate
11 {
12     public:
13         // Constructor
14         Gate(Wire* input1, Wire* input2, Wire* output, int type, int dly);
15
16         // Destructor
17         ~Gate();
18
19         // Member function definitions
20         void update(int time, priority_queue<Event>* eq, int priority);
21         // Note: Since the gate only aliases the wires and does not new anything,
22         // it requires no destructor.
23
24     private:
25         // Attributes
26         Wire* input1;
27         Wire* input2;
28         Wire* output;
29         int delay;
30         int type;
31         //Notes on type:
32         //1 = AND
33         //2 = OR
34         //3 = NAND
35         //4 = NOR
36         //5 = XOR
37         //6 = XNOR
38         //7 = NOT
39 };
40
41 #endif // GATE_H

```