```
 1: /**
 2:  * @file FibLFSR.h
 3:  * @author Shivam Patel
 4:  * Due Date: 2022-01-31
 5:  * Course: Comp 4
 6:  * @date 2022-01-31
 7:  *
 8:  */
 9: #include <iostream>
10: #include <string>
11: #include <math.h>
12:
13: using namespace std;
14:
15: class FibLFSR {
16:     public:
17:         FibLFSR(string seed);   // constructor to create LFSR with
18:         int step();             // the given initial seed
19:         int generate(int k);
20:          string getSeed(void) const;                         // simulate o
ne step and return the
21:                                 // new bit as 0 or 1
22:                                 // simulate k steps and return
23:                                 // k-bit integer
24:     private:
25:     string iseed;
26: };
27:
28: int unstringify(char bit);
29: ostream& operator<<(ostream& out, const FibLFSR& l);
```