```
1: // Copyright 2022 Matthew Lorette Anaya
 2: #ifndef RANDWRITER_H
 3: #define RANDWRITER_H
 4:
 5: #include <iostream>
 6: #include <string>
 7: #include <map>
 8: #include <exception>
 9: #include <utility>
10: #include <random>
11:
12: class RandWriter {
13: private:
14:
        int rw_k;
15:
16:
        std::string rw_txt;
        std::map<std::string, std::map<char, int>> rw_table;
17:
18:
19: public:
20:
21:
        RandWriter(std::string text, int k);
22:
23:
       int orderK() const;
24:
       int freq(std::string kgram) const;
25:
       int freq(std::string kgram, char c) const;
26:
27:
        std::string getText() const;
28:
       std::string generate(std::string kgram, int L) const;
29:
30:
       std::map<std::string, std::map<char, int>> get_table() const;
31:
32:
       char kRand(std::string kgram) const;
33:
34:
        friend std::ostream& operator<<(std::ostream& out, const RandWriter&
35:
        rw);
36:
37: };
38: #endif
```