

```
1: // Copyright 2020 Michael Zogin
2: #ifndef ED_H // NOLINT
3: #define ED_H // NOLINT
4:
5: #include <SFML/System.hpp>
6: #include <iomanip>
7: #include <iostream>
8: #include <sstream>
9: #include <stdexcept>
10: #include <string>
11: #include <vector>
12: #include <algorithm>
13:
14: using std::string;
15: using std::vector;
16: using std::endl;
17:
18: class ED {
19: public:
20:     ED();
21:     ED(const string &s1, const string &s2);
22:     ~ED();
23:
24:     static int penalty(char a, char b);
25:     static int min(int a, int b, int c);
26:     int OptDistance();
27:     std::string Alignment();
28:
29:     void PrintMatrix();
30:
31: private:
32:     string string1, string2;
33:     int N = 0;
34:     int M = 0;
35:
36:     std::vector<std::vector<int>> *matrix;
37: };
38:
39: #endif // NOLINT
```