```
 1: #ifndef ED_H
 2: #define ED_H
 3:
 4: #include <string>
 5: #include <iostream>
 6: #include <algorithm>
 7: #include <SFML/System.hpp>
 8:
 9: class ED{
10: private:
11:    std::string _str1;
12:    int _str1Len;
13:    std::string _str2;
14:    int _str2Len;
15:
16:    int **_array;
17:
18: public:
19:    ED(std::string str1, std::string str2);//constructor, allocates any data s
tructures
20:
21:    static int penalty(char a, char b);//returns penaluty for aligning chars(0
 or 1)
22:
23:    static int min(int a, int b, int c);//returns minimum of 3 args
24:
25:    int optDistance();//populates matricies based on two strings, returns opti
mal discance
26:
27:    std::string alignment();//traces the matrix and returns string to be print
ed
28:
29:    int getStr1Len();
30:
31:    int getStr2Len();
32:
33:    ~ED();
34:
35: };
36:
37: #endif
```