```
1: #ifndef EDITDISTANCE_HPP
 2: #define EDITDISTANCE_HPP
 3:
 4: #include <string>
 5: #include <vector>
 6: #include <iostream>
 7:
 8: class EditDistance
9: {
10: public:
11: EditDistance(std::string string_1, std::string string_2);
12:
     ~EditDistance();
13: int penalty(char a, char b);
14: int min(int a, int b, int c);
15: int OptDistance();
16: std::string Alignment();
17:
18: private:
19: std::vector< std::vector< int > > data;
20: std::string x, y;
21: };
22: #endif
```