

```
1  #include "KeyProvider.h"
2  using namespace std;
3
4  KeyProvider::KeyProvider(const std::string& aKeyword) :
5      fSize(aKeyword.length()),
6      fIndex(0)
7  {
8      initialize(aKeyword);
9  }
10
11 KeyProvider::~KeyProvider()
12 {
13     delete[] fKeyword;
14 }
15
16 void KeyProvider::initialize(const std::string& aKeyword)
17 {
18     delete[] fKeyword;
19
20     fSize = aKeyword.length();
21     fKeyword = new char[fSize];
22
23     for (size_t i = 0; i < fSize; i++)
24     {
25         this->fKeyword[i] = toupper(aKeyword.at(i));
26     }
27
28     fIndex = 0;
29 }
30
31 char KeyProvider::operator*() const
32 {
33     return fKeyword[fIndex];
34 }
35
36 KeyProvider& KeyProvider::operator<<(char aKeyCharacter)
37 {
38     fKeyword[fIndex] = toupper(aKeyCharacter);
39     if (++fIndex == fSize)
40     {
41         fIndex = 0;
42     }
43     return (*this);
44 }
45
46
47
```