

```
1  const int MAXN = 1000000;  
2  
3  int z[MAXN];  
4  char s[MAXN+1];  
5  int n;  
6  
7  void run z() {  
8      int L = 0, R = 0;  
9      for (int i = 1; i < n; i++) {  
10         if (i > R) {  
11             L = R = i;  
12             while (R < n && s[R-L] == s[R]) R++;  
13             z[i] = R-L; R--;  
14         } else {  
15             int k = i-L;  
16             if (z[k] < R-i+1) z[i] = z[k];  
17             else {  
18                 L = i;  
19                 while (R < n && s[R-L] == s[R]) R++;  
20                 z[i] = R-L; R--;  
21             }  
22         }  
23     }  
24 }  
25
```