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1 //[UNIX ls 指令/UNIX ls]
2 #define IN "P0512IN.txt"
3 #define OUT "P0512OUT.txt"
4 //*****
5 #include <iostream>
6 #include <time.h>
7 using namespace std;
8 void redir(void);
9 //*****
10 /* Work Space*/
11 #include <string>
12 #include <algorithm>
13 void print(string s, int len, char extra);
14 //*****
15 int main(void)
16 {
17     redir(); //redirection
18 //*****
19 /* Work Space*/
20     int n;
21     int M;
22     string filename[100];
23     int i;
24     int cols, rows;
25     int r, c;
26     int id;
27
28     while(scanf("%d", &n) == 1){
29         M = 0;
30         for(i=0; i<n; i++){
31             cin >> filename[i];
32             M = max(M, (int)filename[i].length()); //注意轉型: (int)filename[i].length()
33         }
34
35         cols = (60 - M)/(M + 2) + 1; //常數60來自題目: 每列60個字元
36         rows = (int)ceil(double(n)/cols); //注意轉型
37
38         print("", 60, '-');
39         cout << endl;
40
41         sort(filename, filename+n);
42         for(r = 0; r < rows; r++){
43             for(c = 0; c < cols; c++){
44                 id = c * rows + r; //column-major
45                 if(id < n){
46                     print(filename[id], c == cols-1 ? M : M+2, ' ');
47                 }
48             }
49             cout << endl;
50         }
51     }
52
53 //*****
54     freopen("CON", "r", stdin); //取消重新導向
55     freopen("CON", "w", stdout);
56
57     printf("Time used = %.2f\n", (double)clock()/CLK_TCK); //傳回程式目前為止執行的時間
58
59     system("pause");
60     return 0; //the end...
61 }
62
63 void redir(void)

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```
64 {
65     freopen(IN, "r", stdin);
66     freopen(OUT, "w", stdout);
67 }
68 //*****
69 /* Work Space*/
70 //輸出字串s，長度不足len時補字元extra
71 void print(string s, int len, char extra)
72 {
73     int i;
74
75     cout << s;
76     for(i=0; i<len-s.length(); i++){
77         cout << extra;
78     }
79 }
80
81 //Input(IN) Sample
82 /*
83 10
84 tiny
85 2short4me
86 very_long_file_name
87 shorter
88 size-1
89 size2
90 size3
91 much_longer_name
92 12345678.123
93 mid_size_name
94 12
95 Weaser
96 Alfalfa
97 Stimey
98 Buckwheat
99 Porky
100 Joe
101 Darla
102 Cotton
103 Butch
104 Froggy
105 Mrs_Crabapple
106 P.D.
107 19
108 Mr._French
109 Jody
110 Buffy
111 Sissy
112 Keith
113 Danny
114 Lori
115 Chris
116 Shirley
117 Marsha
118 Jan
119 Cindy
120 Carol
121 Mike
122 Greg
123 Peter
124 Bobby
125 Alice
126 Ruben
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