

2016

Coding Assignment for Softwriters

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Coding assignment.

Problem:

On screen keyboards are the bane of DVR users. To help alleviate the pain, one local company is asking you to implement part of a voice to text search for their DVR by developing an algorithm to script the on screen keyboard. The keyboard is laid out as follows:

ABCDEF

GHIJKL

MNOPQR

STUVWX

YZ1234

567890

Please write a program which scripts the path of the cursor on the keyboard. The program should:

1. Accept a flat file as input.
 - i. Each new line will contain a search term
2. Output the path for the DVR to execute for each line
 - i. Assume the cursor will always start on the A
 - ii. Use the following characters to make up the path
 - a. U = up
 - b. D = down
 - c. L = left
 - d. R = right
 - e. S = space
 - f. # = select
3. Comma delimit the result

Sample Input

IT Crowd

Sample Output

D,R,R,#,D,D,L,#,S,U,U,U,R,#,D,D,R,R,R,#,L,L,L,#,D,R,R,#,U,U,U,L,#

Environment:

Developed the application as a console application in c#.

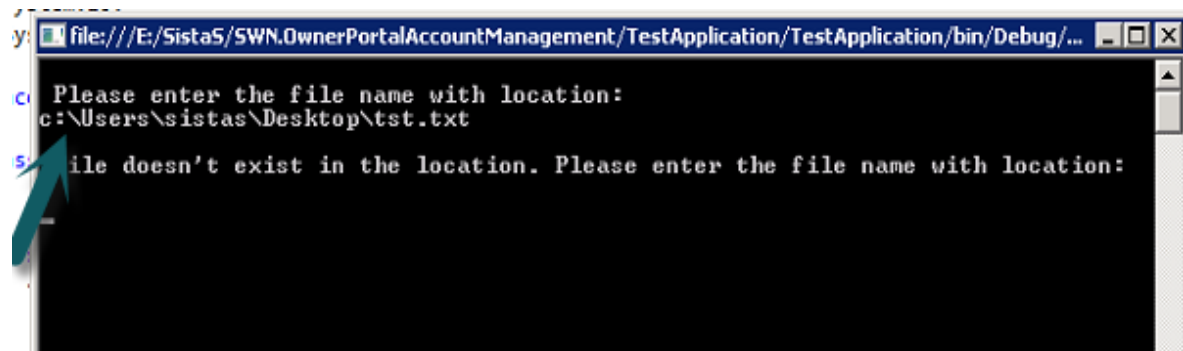
Output

1) Test.txt has the following words :

- a. IT Crowd
- b. IT (space in the end)
- c. C R O W D

2) The application ask s to enter the file name with location

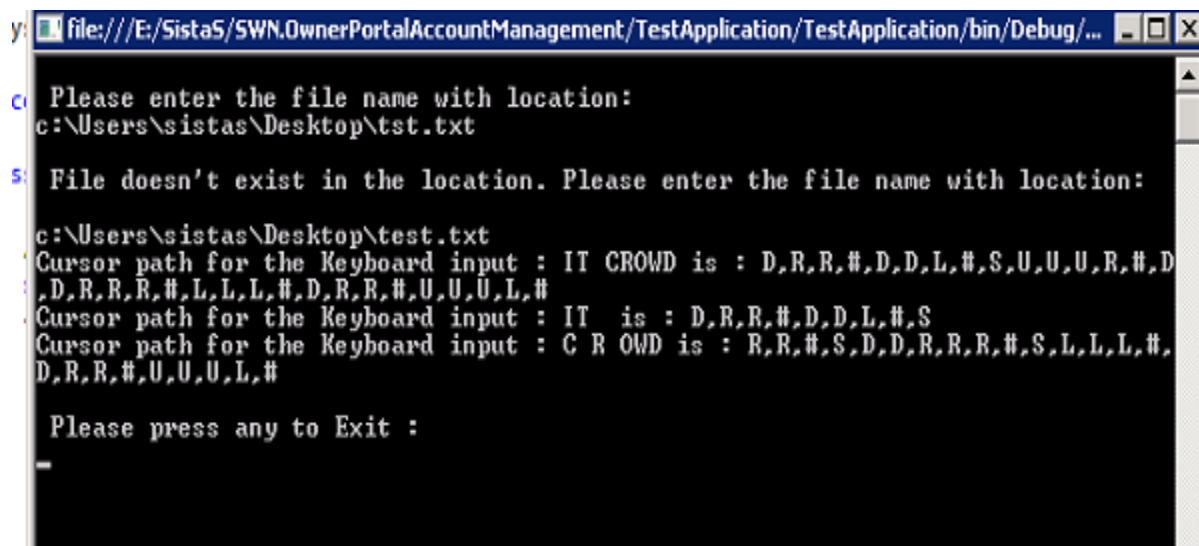
If incorrect filename/file path then application asks to reenter the proper filename /file path.



The screenshot shows a console application window with the title bar "file:///E:/SistaS/SWN.OwnerPortalAccountManagement/TestApplication/TestApplication/bin/Debug/...". The console output is as follows:

```
c> Please enter the file name with location:
c:\Users\sistas\Desktop\tst.txt
5> File doesn't exist in the location. Please enter the file name with location:
```

A green arrow points to the error message "File doesn't exist in the location. Please enter the file name with location:".



The screenshot shows the same console application window. The console output is as follows:

```
c> Please enter the file name with location:
c:\Users\sistas\Desktop\tst.txt
5> File doesn't exist in the location. Please enter the file name with location:
c:\Users\sistas\Desktop\test.txt
Cursor path for the Keyboard input : IT CROWD is : D,R,R,#,D,D,L,#,S,U,U,U,R,#,D
,D,R,R,R,#,L,L,L,#,D,R,R,#,U,U,U,L,#
Cursor path for the Keyboard input : IT is : D,R,R,#,D,D,L,#,S
Cursor path for the Keyboard input : C R O W D is : R,R,#,S,D,D,R,R,R,#,S,L,L,L,#,
D,R,R,#,U,U,U,L,#
Please press any to Exit :
-
```