

CSE 102 Homework Assignment 3

(Due: Oct 18 11:55 pm)

You are going to write a complete C program which implements the following functionality:

- You are given a file which contains lines of character strings of various sizes. Your program should read the given file and locate the following 5 strings:
 - Xanthos
 - Patara
 - Myra
 - Arycanda
 - Phaselis
- The 5 constant strings can appear vertically or horizontally. Once all the strings are found, your program should print their head position and the orientation to the terminal.
- Code it so that it reads a text file named `input.txt`

Example

Contents of the input file:

```
askjdkdanmowflfkadkjkaksdklskksadllasd
fkfklsal;sdlsflsfdkdfkMyraslfsfeokdlasdfdf
wfewfPsdflsdfklsdosfkeowkfweofkwoefkkkfsf
sdfsdakjewofksdfoiwefjowefks;dfPhaselissdfkefowefjksdlfjslfsldfj
oefkwtifjslflsdfkjeifjjsl;asldkiefjiefjlskfdjeifjksk
sdlfkawioAjksdlfkeifsfllkefjiwfejsllfjeighghj;wp
dfkjerwfjr;s;dlskfjiefwflwekfjwlefiiegwefjiw
sdfkkafwXanthosdkfjlsAfdjiefeiowefwefiefjowiefehgl;lewofjefw
iieoefnFGSAiejfiwefjhrwefiiewefjiwiefihhwefklskdf
skkfjwifjwiwiefiefwfy[pwpfjwifwefijijwhi]
sdfijwiefjiwhiwiefjiwcifjweofi;aiajdijeifwuiefhwoiefjowehi
iiewefiwefjwiefjwiefjiajiefiiewjflkajsdlkjfiewhfiwefjowiefhhaskjlskdfu
iwjefijefmmiewifjweifnklksjdiaifwefpwefijfiwfOWOEFIEWfnweiuf
jfnwefiwfpwfjiejfiwefdjwfljfwiefjiwefwfljijfiwefhu
kkfiefiewpfpkfjfhewfoawefkwoefoejwfowefkowefkowo
```

Output:

```
Xanthos (8,9) Horizontal
Patara (3,6) Vertical
Myra (2,22) Horizontal
Arycanda (8,22) Vertical
Phaselis (4,32) Horizontal
```

Remarks:

- Strings which correspond to rows are separated by whitespace.
- Maximum length of each row is `250`
- Maximum number of rows is `100`

Turn in:

A complete C program `<assignment_3_name_id.c>` which can be compiled using the following command:

```
gcc -std=c99 assignment_3_name_id.c -o assignment_3_name_id
```

Caution:

- Read and apply “Assignment Submission Rules and Other Related Information” document which available on the class e-learning system.
- You may or may not get partial credit depending on how you structured or documented your code.