F28PL1 Programming Languages

Laboratory 4

1. write a function:

int getLine(FILE \* fin,char a[],int n)

which reads a line of characters ending with ‘\n’ from file pointer fin into array a of length n. If there are more than n characters on the line, the function prints a warning message and skips characters to the ‘\n’. The function returns the length of the line for success and EOF at end of file.

Use the function to write a program to display a specified file on numbered lines:

$ show story.txt

1 Once upon a time, there were three little

2 computers called linux00, linux01 and linux02.

3 One day, the nice computer manager came into

4 the Linux Laboratory. "Hello nice computer

5 manager," said linux00. "Hello linux00," said

6 the nice computer manager. "What brings you

7 here to see us?" said linux01. "Well," said the

8 nice computer manager, "I've got bad news and

9 I've got good news." "What's the bad news?" said

10 linux02. "You're all going to be unplugged," said

11 the nice computer manager. "What's the

12 goooooooooooo..." said linux00.

1. write a function:

int contains(char target[],int m,char source[],int n)

which returns 1 if array source of length n contains array target of length m, and 0 if not.

Use the function, and getLine above, to write a program to display all the lines in a specified file that contain a specified character sequence:

$ find $ find linux story.txt

2 computers called linux00, linux01 and linux02.

5 manager," said linux00. "Hello linux00," said

7 here to see us?" said linux01. "Well," said the

10 linux02. "You're all going to be unplugged," said

12 goooooooooooo..." said linux00.