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EXERICSE-28

Write a C program for simulation of GREP UNIX command.

Aim:

To write a C program to simulate the functionality of the grep UNIX command, which searches for a specified pattern in a file and displays the matching lines.

Algorithm:

1 . Open the File:

- Use fopen to open the file for reading.

2. Read the File Line by Line:

- Use fgets to read the file line by line.

3. Search for Pattern:

- Use strstr to search for the given pattern in each line.

4. Display Matching Lines:

- If a match is found, print the line.

5. Close the File:

- After reading the entire file, use fclose to close it.

Procedure:

1. Open the file using fopen for reading.
2. Read the file line by line using fgets.
3. For each line, use strstr to check if the pattern exists.
4. Print the lines containing the pattern.
5. Close the file after the search is complete.

Code:

```
#include <stdio.h>
```

```
#include <string.h>
```

```
int main() {
```

```
    FILE *file;
```

```

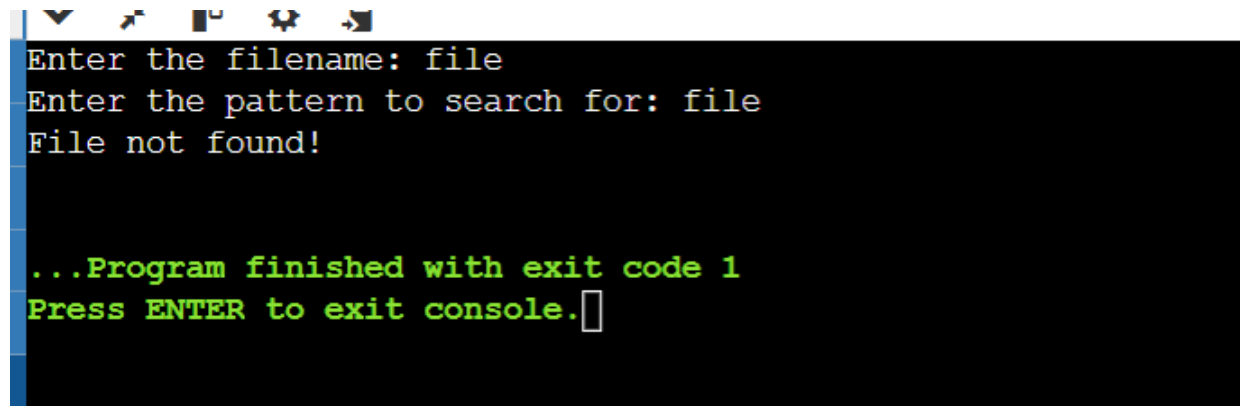
char line[1000], pattern[100];
printf("Enter the filename: ");
scanf("%s", pattern);
printf("Enter the pattern to search for: ");
scanf("%s", pattern);
file = fopen(pattern, "r");
if (file == NULL) {
    printf("File not found!\n");
    return 1;
}
while (fgets(line, sizeof(line), file)) {
    if (strstr(line, pattern)) {
        printf("%s", line);
    }
}
fclose(file);
return 0;
}

```

Result:

The program successfully simulates the grep command by searching for a specified pattern in a file and displaying the lines containing the pattern.

Output:



```

Enter the filename: file
Enter the pattern to search for: file
File not found!

...Program finished with exit code 1
Press ENTER to exit console.

```

