

OPERATING SYSTEM(2CS403)

PRACTICAL-10

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AIM:Write a C program to implement grep command.

1. Case sensitive

//1.case sensitive

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

```
#include <stdlib.h>
```

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

```
int main()
```

```
{
```

```
    char file_name[20], word[20], str[100];
```

```
    printf("enter the file name : ");
```

```
    scanf("%s", file_name);
```

```
    printf("enter the word you want to find : ");
```

```
    scanf("%s", word);
```

```
    FILE *fp;
```

```
    fp = fopen(file_name, "r");
```

```
    if (fp == NULL) {
```

```
        perror("Error opening file");
```

```
        return (-1);
```

```
    }
```

```
    while (fgets(str, 100, fp) != NULL)
```

```
    {
```

```
        if (strstr(str, word) != NULL)
```

```
        {
```

```
            printf("%s", str);
```

```
        }
```

```
    }
```

```
}
```

Content of f1.txt::

Computer Science is the study of computers and computational systems. Unlike electrical and computer engineers, computer scientists deal mostly with software and software systems; this includes their theory, design, development, and application.

```
C:\Users\Lenovo IP320\Desktop\os_prac\prac10>a
enter the file name : f1.txt
enter the word you want to find : design
r theory, design, development, and application.
```

2.line count

//2.line count

```
#include <stdio.h>
#include <stdlib.h>
#include <string.h>
int main()
{
    char file_name[20], word[20], str[100];
    int count = 1;
    printf("enter the file name : ");
    scanf("%s", file_name);
    printf("enter the word you want to find : ");
    scanf("%s", word);
    FILE *fp;
    fp = fopen(file_name, "r");
    if (fp == NULL) {
        perror("Error opening file");
        return (-1);
    }

    while (fgets(str, 100, fp) != NULL)
```

```

{
    if (strstr(str, word) != NULL)
    {
        printf("%d. %s", count, str);
        count++;
    }
    else {
        count++;
    }
}
printf("Total occurance of %s is %d.", word, count);
}

```

```

C:\Users\Lenovo IP320\Desktop\os_prac\prac10>gcc 2.c
C:\Users\Lenovo IP320\Desktop\os_prac\prac10>a
enter the file name : f1.txt
enter the word you want to find : computers
1. Computer Science is the study of computers and computational systems. Unlike electrical and computeTotal occurance of computers is 4.
C:\Users\Lenovo IP320\Desktop\os_prac\prac10>_

```

3. STARTING

//3.starting

```

#include <stdio.h>
#include <stdlib.h>
#include<string.h>
int main()
{
    char file_name[20], word[20], str[100];
    printf("enter the file name : ");
    scanf("%s", file_name);
    printf("enter the word you want to find : ");
    scanf("%s", word);
    FILE *fp;
    fp = fopen(file_name, "r");

```

```

if (fp == NULL) {
    perror("Error opening file");
    return (-1);
}

while (fgets(str, 100, fp) != NULL)
{
    if (strcmp(str, word) > 0)
    {
        printf("%s", str);

    }

}
}
}

```

```

C:\Users\Lenovo IP320\Desktop\os_prac\prac10>a
enter the file name : f1.txt
enter the word you want to find : computers
r engineers, computer scientists deal mostly with software and software systems.
C:\Users\Lenovo IP320\Desktop\os_prac\prac10>

```

4.Non Matching

//4.non matching

```

#include <stdio.h>
#include <stdlib.h>
#include <string.h>
int main()
{
    char file_name[20], word[20], str[100];

    printf("enter the file name : ");
    scanf("%s", file_name);
    printf("enter the word you want to find : ");

```

```

scanf("%s", word);
FILE *fp;
fp = fopen(file_name, "r");
if (fp == NULL) {
    perror("Error opening file");
    return (-1);
}

while (fgets(str, 100, fp) != NULL)
{
    if (strstr(str, word) == NULL)
    {
        printf("%s", str);
    }

}

}

```

```

C:\Users\Lenovo IP320\Desktop\os_prac\prac10>a
enter the file name : f1.txt
enter the word you want to find : computers
r engineers, computer scientists deal mostly with software and software systems; this includes their theory, design, development, and application.
C:\Users\Lenovo IP320\Desktop\os_prac\prac10>

```

5.Count lines

//5. count lines

```

#include <stdio.h>
#include <stdlib.h>
#include<string.h>
int main()
{
    char file_name[20], word[20], str[100];

```

```

int count = 0;
printf("enter the file name : ");
scanf("%s", file_name);
printf("enter the word you want to find : ");
scanf("%s", word);
FILE *fp;
fp = fopen(file_name, "r");
if (fp == NULL) {
    perror("Error opening file");
    return (-1);
}

while (fgets(str, 100, fp) != NULL)
{
    if (strstr(str, word) != NULL)
    {
        count++;
    }

}
printf("%d", count);
}

```

```

C:\Users\Lenovo IP320\Desktop\os_prac\prac10>gcc 5.c

C:\Users\Lenovo IP320\Desktop\os_prac\prac10>a
enter the file name : f1.txt
enter the word you want to find : software
1
C:\Users\Lenovo IP320\Desktop\os_prac\prac10>

```