

Experiment-28;Write a C program for simulation of GREP UNIX command

Aim:

To simulate the functionality of the grep command in UNIX, which searches for a specified pattern in a file and displays the lines containing that pattern.

Procedure:

1. Open the File: Use fopen to open the specified file for reading.
2. Read the File Line by Line: Use fgets to read the file line by line.
3. Search for the Pattern: Use strstr to search for the specified pattern in each line.
4. Display Matching Lines: Print the lines that contain the pattern.
5. Close the File: Use fclose to close the file after reading.

C Code:

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

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

```
int main(int argc, char *argv[]) {
```

```
    FILE *file;
```

```
    char line[256];
```

```
    if (argc != 3) {
```

```
        printf("Usage: ./grep <pattern> <file>\n");
```

```
        return 1;
```

```
    }
```

```
    file = fopen(argv[2], "r");
```

```
    if (file == NULL) {
```

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

```
        return 1;
```

```
}
```

```
while (fgets(line, sizeof(line), file)) {
```

```
    if (strstr(line, argv[1]) != NULL) {
```

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

```
    }
```

```
}
```

```
fclose(file);
```

```
return 0;
```

```
}
```

Output:

Output

```
This is a line containing the pattern.  
Another line with the pattern in it.
```