

EXPERIMENT-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 specific pattern in a file.

ALGORITHM:-

1. **Accept Input:**
 - Take the pattern to search for and the file name as command-line arguments.
2. **Open the File:**
 - Use fopen to open the specified file in read mode.
3. **Search for the Pattern:**
 - Read each line from the file using fgets.
 - Use strstr to check if the pattern exists in the current line.
4. **Display Matching Lines:**
 - If the pattern is found in a line, print that line.
5. **Close the File:**
 - Use fclose to close the file.

CODE:-

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

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

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

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

    FILE *file;

    char line[1024];

    char *pattern;


    // Check for sufficient arguments

    if (argc != 3) {

        fprintf(stderr, "Usage: %s <pattern> <filename>\n", argv[0]);

        return 1;

    }


    pattern = argv[1];


    // Open the file

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

    if (file == NULL) {

        perror("Error opening file");

        return 1;

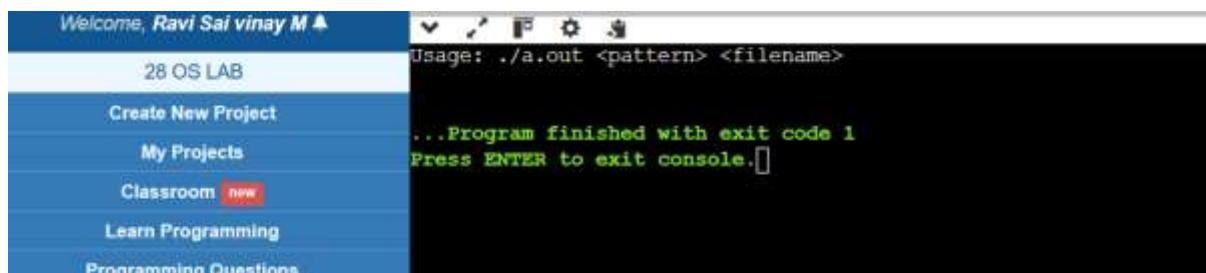
    }


    printf("Lines containing the pattern '%s':\n", pattern);


    // Read and search each line for the pattern
```

```
while (fgets(line, sizeof(line), file)) {  
  
    if (strstr(line, pattern) != NULL) {  
  
        printf("%s", line);  
  
    }  
  
}  
  
  
// Close the file  
  
fclose(file);  
  
return 0;  
  
}
```

OUTPUT:-



RESULT:-

The program successfully simulated the grep UNIX command, searching for a specified pattern in a file and displaying the matching lines.