Batch: P5-2   Roll No.:16010422185

Experiment / assignment / tutorial No.

Grade: AA / AB / BB / BC / CC / CD /DD

Signature of the Staff In-charge with date

TITLE: File handling in C

AIM: Write a C program to copy the contents of one text file to another

Expected OUTCOME of Experiment:

Books/ Journals/ Websites referred:
1. Programming in C, second edition, Pradeep Dey and Manas Ghosh, Oxford University Press.
2. Programming in ANSI C, fifth edition, E Balagurusamy, Tata McGraw Hill.
3. Introduction to programming and problem solving, G. Michael Schneider ,Wiley India edition.

Theory:
Problem Definition:
Write a C program to
1. Accept 5 students name and roll number from user
2. Create a new file having name "info.txt"
3. Copy students information collected in step 1 in file created in step 2 "info.txt"
4. Create one more new file having name "backup.txt"
5. Copy contain of file "info.txt" into "backup.txt"

Implementation details:

```c
#include<stdio.h>
#include<string.h>
#include <stdlib.h>

int main(){
    int i,n=5;
    int roll_no[n];
    char name[n][20];

    for (i=0;i<n;i++)
    {
        fflush(stdin);
        printf("\nEnter name of student:");
```

```c
        gets(name[i]);
        printf("\nEnter roll number:");
        scanf("%d",&roll_no[i]);
    }

    FILE *fs,*ft;
    char snum[10];

    fs=fopen("info.txt","w");

    for(i=0;i<n;i++)
    {
        itoa(roll_no[i], snum, 10);
        fputs(strcat(strcat(name[i],","),strcat(snum,"\n")),fs);
    }
    fclose(fs);

    fs=fopen("info.txt","r");
    ft=fopen("backup.txt","w");

    char ch;
    while(1){
        ch=fgetc(fs);
        if(ch==EOF)
            break;
        fputc(ch,ft);
    }
    fclose(fs);
    fclose(ft);

    return 0;
}
```

Output:

K. J. Somaiya College of Engineering, Mumbai-77
(A Constituent College of Somaiya Vidyavihar University)
Department of Science and Humanities

SOMAIYA
VIDYAVIHAR UNIVERSITY
K J Somaiya College of Engineeri

Somaiya
TRUST

```
Enter name of student:Pratham

Enter roll number:44

Enter name of student:Rikhav

Enter roll number:39

Enter name of student:Diya

Enter roll number:22

Enter name of student:Keshav

Enter roll number:33

Enter name of student:Keyur

Enter roll number:78
```
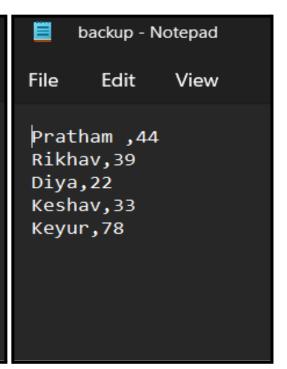
info - Notepad

File   Edit   View

```
Pratham ,44
Rikhav,39
Diya,22
Keshav,33
Keyur,78
```

backup - Notepad

File   Edit   View

```
Pratham ,44
Rikhav,39
Diya,22
Keshav,33
Keyur,78
```

Today			
backup	15-01-2023 12:01	Text Document	1 KB
info	15-01-2023 12:01	Text Document	1 KB
exp 8	15-01-2023 12:00	Application	43 KB
exp 8.o	15-01-2023 12:00	O File	3 KB
exp 8.c	15-01-2023 11:57	C File	1 KB
Yesterday			

Conclusion:

Concept of File handling was understood and implemented.

Post Lab Descriptive Questions

1. Write a program to append the contents of one file at the end of another.

Code:

```c
#include <stdio.h>

#include <stdlib.h>

int main()

{

    int BUFFER_SIZE = 1000;

    FILE *fPtr;

    char filePath[100];

    char dataToAppend[BUFFER_SIZE];

    printf("Enter file path: ");

    scanf("%s", filePath);

    fPtr = fopen(filePath, "a");

    if (fPtr == NULL)

    {
```

```c
        printf("\nUnable to open '%s' file.\n", filePath);

        printf("Please check whether file exists and you have write privilege.\n");

        exit(EXIT_FAILURE);

    }

    printf("\nEnter data to append: ");

    fflush(stdin);

    fgets(dataToAppend, BUFFER_SIZE, stdin);

    fputs(dataToAppend, fPtr);

    fPtr = freopen(filePath, "r", fPtr);

    printf("\nSuccessfully appended data to file. \n");

    printf("Changed file contents:\n\n");

    char ch;

    do

    {

        ch = fgetc(fPtr);

        putchar(ch);

    } while( ch != EOF);

    fclose(fPtr);

    return 0;

}
```

<u>Output:</u>

```
Enter file path: C:\Users\Pratham\Dropbox\PC\Downloads\code\backup.txt

Enter data to append: new data

Successfully appended data to file.
Changed file contents:

Pratham ,44
Rikhav,39
Diya,22
Keshav,33
Keyur,78
new data
```

Date: _____   **Signature of faculty in-charge**