

Batch: C2-1 Roll No.: 16010122104

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 content of file "info.txt" into "backup.txt"

Implementation details:

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

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

```
struct student {  
    char name[50];  
    int roll_number;  
};
```

```
int main()  
{  
    struct student s[5];  
    FILE *fp, *fp2;  
    // Accept 5 students name and roll number from user
```

```
for (int i = 0; i < 5; i++) {
    printf("Enter name of student %d: ", i + 1);
    scanf("%s", s[i].name);
    printf("Enter roll number of student %d: ", i + 1);
    scanf("%d", &s[i].roll_number);
}

// Create a new file having name "info.txt"
fp = fopen("info.txt", "w");

// Copy students information collected in step 1 in file created in step 2 "info.txt"
for (int i = 0; i < 5; i++) {
    fprintf(fp, "Name: %s\nRoll Number: %d\n", s[i].name, s[i].roll_number);
}

fclose(fp);

// Create one more new file having name "backup.txt"
fp2 = fopen("backup.txt", "w");

// Copy contain of file "info.txt" into "backup.txt"
fp = fopen("info.txt", "r");
char c;
while((c = fgetc(fp)) != EOF) {
    fputc(c, fp2);
}

fclose(fp);
fclose(fp2);
return 0;
}
```

Output:

```
"C:\Users\kashi\OneDrive\De: X + v
Enter name of student 1: Arya
Enter roll number of student 1: 103
Enter name of student 2: Brain
Enter roll number of student 2: 106
Enter name of student 3: Carter
Enter roll number of student 3: 506
Enter name of student 4: David
Enter roll number of student 4: 809
Enter name of student 5: Elly
Enter roll number of student 5: 144

Process returned 0 (0x0)   execution time : 71.237 s
Press any key to continue.
```

Conclusion:

Successfully created a program to copy the contents of one file to another with file name info.txt.

Post Lab Descriptive Questions

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

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

int main()
{
    FILE *fsring1, *fsring2, *ftemp;
    char ch, file1[20], file2[20], file3[20];

    printf("Enter name of first file ");
    gets(file1);
    printf("Enter name of second file ");
    gets(file2);
    printf("Enter name to store merged file ");
    gets(file3);
    fsring1 = fopen(file1, "r");
```



```
fsring2 = fopen(file2, "r");
if (fsring1 == NULL || fsring2 == NULL)
{
    perror("Error has occurred");
    printf("Press any key to exit...\n");
    exit(EXIT_FAILURE);
}
ftemp = fopen(file3, "w");
if (ftemp == NULL)
{
    perror("Error has occurs");
    printf("Press any key to exit...\n");
    exit(EXIT_FAILURE);
}
while ((ch = fgetc(fsring1)) != EOF)
    fputc(ch, ftemp);
while ((ch = fgetc(fsring2)) != EOF)
    fputc(ch, ftemp);
printf("Two files merged  %s successfully.\n", file3);
fclose(fsring1);
fclose(fsring2);
fclose(ftemp);
return 0;
}
```

Date: _____

Signature of faculty in-charge