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Experiment / ~~**assignment**~~ **/** ~~**tutorial**~~ **No. 8**

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: The program should be able to input information about some students from the user, create a new file and copy the inputted information to it. Then create one more file and copy the content from the previous file to the current one.

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' names and their roll numbers from the user.
2. Create a new file having the name "info.txt".
3. Copy students' information collected in step 1 in the file created in step 2 "info.txt".
4. Create one more new file having the name "backup.txt".
5. Copy content of file "info.txt" to "backup.txt".

Implementation details:

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

void main()
{
    int i;
    int roll_number[5];
    char name[5][50];
    for(i=0;i<5;i++)
    {
        printf("\nEnter name of the student: ");
        scanf("%s",&name[i][50]);
        printf("Enter roll number of the student: ");
        scanf("%d",&roll_number[i]);
    }

    FILE *fs,*ft;
    char snum[20];
    fs=fopen("info.txt","w");
    for(i=0;i<5;i++)
    {
        itoa(roll_number[i],snum,20);
        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);
}
```

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Outpt:

Conclusion:

The program was able to input information about 5 students from the user, create a new file having the name "info.txt" and copy the inputted information to it. Then create one more file having the name "backup.txt" and copy the content from the previous file to the current one.

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> // For exit()
int main()
{
    FILE *fp1, *fp2;
    char fname1[50],fname2[50],c;
    printf("Enter filename to open for reading : ");
    scanf("%s", fname1);
    // Open one file for reading
    fp1 = fopen(fname1, "r");
    if (fp1 == NULL)
    {
        printf("%s file does not exist..", fname1);
        exit(0);
    }
    printf("\nEnter filename to append the content : ");
    scanf("%s", fname2);
```

```c
// Open another file for appending content
fp2 = fopen(fname2, "a");
if (fp2 == NULL)
{
    printf("%s file does not exist...", fname2);
    exit(0);
}
// Read content from file
c = fgetc(fp1);
while (c != EOF)
{
    fputc(c,fp2);
    c = fgetc(fp1);
}
printf("\nContent in %s appended to %s", fname1,fname2);
fclose(fp1);
fclose(fp2);
return 0;
}
```

```
Enter filename to open for reading : first.txt

Enter filename to append the content : second.txt

Content in first.txt appended to second.txt
```

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