SPOT EXERCISE

LAB07

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OUTPUT:

```
[s2019103562@centos8-linux Mon Mar 29 02:18 PM lab07]$ vim spot.c
[s2019103562@centos8-linux Mon Mar 29 02:18 PM lab07]$ gcc spot.c -o spot
[s2019103562@centos8-linux Mon Mar 29 02:18 PM lab07]$ ./spot
Printing in alphabetical order
Chitra  1025    99
Hema    1021    97
Jay     1029    100
Karthika        1028    100
Mala    1027    100

Printing the register number and marks
1021    97
1025    99
1027    100
1028    100
1029    100
```

```
[s2019103562@centos8-linux Mon Mar 29 02:18 PM lab07]$ cat spot.c
#include<stdio.h>
#include<unistd.h>
#include<fcntl.h>
#include<sys/stat.h>
#include<sys/types.h>
#include<string.h>
#define BUFF_SIZE 100
struct student{
        int reg;
        char name[BUFF_SIZE];
        int marks;
};
void main(){
        int fd,pid,p[2],temp;
        struct student buff[5];
        struct student s[5];
        char file[10]="W7SPOT",temp1[20];
        fd=open(file,O_WRONLY|O_CREAT);
        s[0].reg=1021;
        strcpy(s[0].name,"Hema");
        s[0].marks=97;
        s[1].reg=1025;
        strcpy(s[1].name,"Chitra");
        s[1].marks=99;
        s[2].reg=1027;
        strcpy(s[2].name,"Mala");
        s[2].marks=100;
        s[3].reg=1028;
        strcpy(s[3].name,"Karthika");
        s[3].marks=100;
        s[4].reg=1029;
        strcpy(s[4].name,"Jay");
        s[4].marks=100;
        write(fd,s,sizeof(s));
        close(fd);
        pipe(p);
        fd=open(file,O_RDONLY);
        if((pid=fork())>0){
                read(fd,buff,sizeof(s));
```

```c
            read(fd,buff,sizeof(s));
            write(p[1],buff,sizeof(s));
            for(int i=0;i<5;i++){
                    for(int j=0;j<5;j++){
                            if(strcmp(s[j].name,s[i].name)>0){
                                    temp=s[j].reg;
                                    s[j].reg=s[i].reg;
                                    s[i].reg=temp;
                                    strcpy(temp1,s[j].name);
                                    strcpy(s[j].name,s[i].name);
                                    strcpy(s[i].name,temp1);
                                    temp=s[j].marks;
                                    s[j].marks=s[i].marks;
                                    s[i].marks=temp;
                            }
                    }
            }
            printf("Printing in alphabetical order\n");
            for(int i=0;i<5;i++){
                    printf("%s\t",s[i].name);
                    printf("%d\t",s[i].reg);
                    printf("%d\t",s[i].marks);
                    printf("\n");
            }
            printf("\n");
    }
    else{
            printf("Printing the register number and marks\n");
            read(p[0],buff,sizeof(s));
            for(int i=0;i<5;i++){
                    printf("%d\t",buff[i].reg);
                    printf("%d\t",buff[i].marks);
                    printf("\n");

            }
            printf("\n");
    }
    close(fd);
}
[s2019103562@centos8-linux Mon Mar 29 02:19 PM lab07]$
```