

## LAB 1

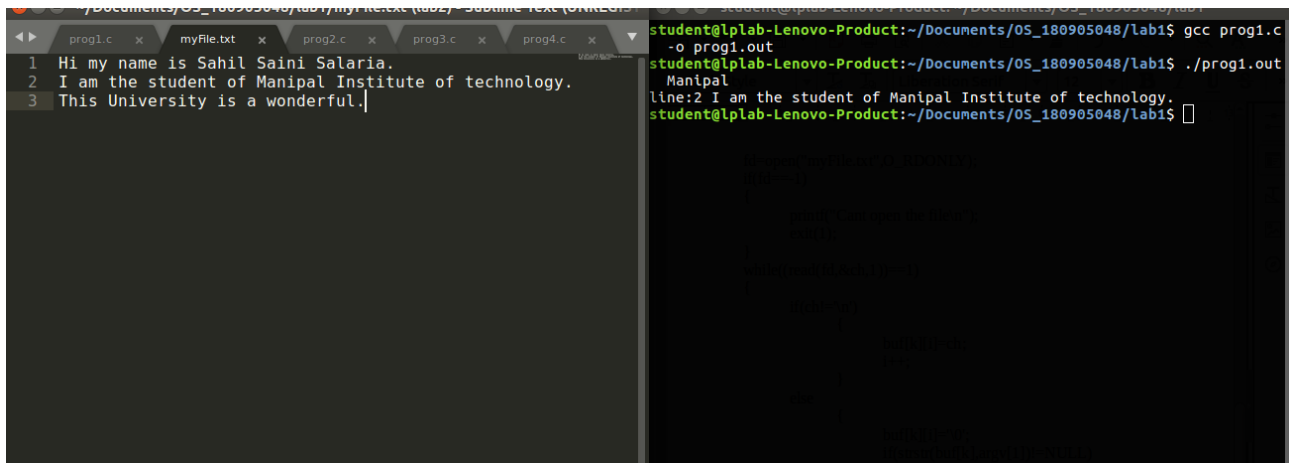
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OS lab

Q1

```
#include<stdio.h>
#include<unistd.h>
#include<stdlib.h>
#include<fcntl.h>
#include<sys/stat.h>
#include<string.h>
int main(int argc, char *argv[])
{

int fd;
int i=0;
int k=0;
char buf[100][100];
char ch;

fd=open("myFile.txt",O_RDONLY);
if(fd==-1)
{
    printf("Cant open the file\n");
    exit(1);
}
while((read(fd,&ch,1))!=1)
{
    if(ch!='\n')
    {
        buf[k][i]=ch;
        i++;
    }
    else
    {
        buf[k][i]='\0';
        if(strstr(buf[k],argv[1])!=NULL)
            printf("line:%d %s\n",k+1,buf[k]);
        i=0;
        k++;
    }
    printf("Loop");
}
}
```



```
student@lplab-Lenovo-Product:~/Documents/OS_180905048/lab1$ gcc prog1.c
-o prog1.out
student@lplab-Lenovo-Product:~/Documents/OS_180905048/lab1$ ./prog1.out
line:2 I am the student of Manipal Institute of technology.
Manipal
student@lplab-Lenovo-Product:~/Documents/OS_180905048/lab1$
```

Q2

```
#include<stdio.h>
#include<unistd.h>
#include<stdlib.h>
#include<fcntl.h>
#include<sys/stat.h>
#include<string.h>
int main(int argc, char const *argv[])
{

int fd;
int k=0;
char buf[100][100];
char ch;
if(argc!=2)
{
    printf("error\n");
    exit(0);
}
fd=open(argv[1],O_RDONLY);
if(fd==-1)
{
    printf("Cant open the file\n");
    exit(0);
}
while(read(fd,&ch,1)==1)
{
    if(ch=='\n')
    {
        k++;
    }
    printf("%c",ch);
    if(k==20)
    {
        while((read(0,&ch,1))!=1);
        k=0;
    }
}
```

```
5 6 i my name is Sahil Saini Salaria.
7 7 I am the student of Manipal Institute of technology.
8 8 The Manipal University is a wonderful place...
9
10 10 i my name is Sahil Saini Salaria.
11 11 I am the student of Manipal Institute of technology.
12 12 The Manipal University is a wonderful place...
13
14 14 i my name is Sahil Saini Salaria.
15 15 I am the student of Manipal Institute of technology.
16 16 The Manipal University is a wonderful place...
17
18 18 i my name is Sahil Saini Salaria.
19 19 I am the student of Manipal Institute of technology.
20 20 The Manipal University is a wonderful place...
21
22 22 i my name is Sahil Saini Salaria.
23 23 I am the student of Manipal Institute of technology.
24 24 The Manipal University is a wonderful place...
25
26 26 i my name is Sahil Saini Salaria.
27 27 I am the student of Manipal Institute of technology.
28 28 The Manipal University is a wonderful place...
29
30
31 31 i my name is Sahil Saini Salaria.
32 32 I am the student of Manipal Institute of technology.
33 33 The Manipal University is a wonderful place...
34
35 35 i my name is Sahil Saini Salaria.
36 36 I am the student of Manipal Institute of technology.
37 37 The Manipal University is a wonderful place...
38
39
```

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

```
int main()
{
    unsigned int a=342;
    int b=3453;
    char c='c';
    char * d="HI i am sahil";
    float e= 2.3;
    double f= 3.4323;
    errno= EPERM;

    printf("Unsigned int %u\n",a);
    printf("Integer %d\n",b);
    printf("character %c\n",c);
    printf("String %s\n",d);
    printf("Float %f\n",e);
    printf("Double %f\n",f);
    printf("Error Number : %m\n");
}
```

}

```
student@lplab-Lenovo-Product:~/Documents/OS_180905048/lab1$ gcc prog3.c -o prog3.out
student@lplab-Lenovo-Product:~/Documents/OS_180905048/lab1$ ./prog3.out
Unsigned int 342
Integer 3453
character c
String HI i am sahil
Float 2.300000
Double 3.432300
Error Number : Operation not permitted
student@lplab-Lenovo-Product:~/Documents/OS_180905048/lab1$
```

Q4

```
#include<stdio.h>
#include<stdlib.h>
#include<string.h>
#include<fcntl.h>
#include<unistd.h>
```

```
int main()
{
    int in =open("myFile.txt",O_RDONLY);
    int out=open("myOutFile.txt",O_WRONLY);

    char ch[10];
    read(in,&ch,1);
    while(read(in,&ch,1)==1)
    {
        write(out,&ch,1);
    }

    return 0;
}
```

```
student@lplab-Lenovo-Product:~/Documents/OS_180905048/lab1$ cat myFile.txt
Hi my name is Sahil Saini Salaria.
I am the student of Manipal Institute of technology.
This University is a wonderful.student@lplab-Lenovo-Product:~/Documents/OS_180905048/lab1$ cat myOutFile.txt
student@lplab-Lenovo-Product:~/Documents/OS_180905048/lab1$ gcc prog4.c -o prog4.out
student@lplab-Lenovo-Product:~/Documents/OS_180905048/lab1$ ./prog4.out
H@student@lplab-Lenovo-Product:~/Documents/OS_180905048/lab1$ cat myOutFile.txt
i my name is Sahil Saini Salaria.
I am the student of Manipal Institute of technology.
This University is a wonderful.student@lplab-Lenovo-Product:~/Documents/OS_180905048/lab1$
```

[illegible]