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Accredited by NAAC with 'A' Grade, ISO 9001:2008 Certified
Nambur, Pedakakani (M), Guntur (Dt) - 522508
DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING
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INSTITUTE OF TECHNOLOGY

<u>CERTIFICATE</u>

Name of the Lab : LINUX PROGRAMMING

Name of the Student : Thota Nagababu

Student Regd. No. : 18BQ1A05K3

CLASS : III B.TECH. I SEM CSE – D

GIT HUB LINK:
https://github.com/nagababuthota984/5K3-OS-LAB\

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INDEX

S. No.	Name of the Experiment	LAST DATE	PAGE NO
4	Write a C program that illustrates how to execute two commands concurrently with a command pipe. Ex: - ls –l | sort	JAN 5	

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EXPERIMENT NO: 4

AIM : Write a C program that illustrates how to execute two commands concurrently with a command pipe. Ex: - ls –l | sort

DESCRIPTION :

Pipe passes the output given by the first command as input to the another command which is on the other side of the pipe.

i) ls -l: ls -l will return the long listed format of all the files and sub-directories in the current working directory. This list will be passes as an input to the **sort** command through a pipe.

ii) sort: sort command will sort the list of files and subdirectories and prints them to the terminal

SYNTAX:

```
i) fgets()
char *fgets(char *str, int n, FILE *stream)
```

str: Pointer to an array of chars where the string read is copied.
n: Maximum number of characters to be copied into str
(including the terminating null-character).
*stream: Pointer to a FILE object that identifies an input stream.
stdin can be used as argument to read from the standard input.

returns: the function returns str

CODE:

```c
#include<stdio.h>

int main()

{

FILE *p=NULL;

FILE *w=NULL;

char buf[1024];

p=popen("ls -l","r");

w=popen("sort","w");

while(fgets(buf,1024,p)!=NULL)

fputs(buf,w);
```

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```
pclose(p);

pclose(w);

}
```

OUTPUT:

STEP1: gcc filename.c execute this command in the terminal.

STEP2: ./a.out

Output will be the long listing format of all the files in the current directory.

OUTPUT SCREEN SHOTS:

```
nag-1211@hp:~/Documents/3-1/OS Lab/Linux Exp 2,3,4$ gcc exp4.c
nag-1211@hp:~/Documents/3-1/OS Lab/Linux Exp 2,3,4$ ./a.out
-rw-rw-r-- 1 nag-1211 nag-1211 103746 Dec 21 21:09 lssnap.png
-rw-rw-r-- 1 nag-1211 nag-1211 168437 Dec 21 21:43 18BQ1A05K3_UNIX_EXP3.pdf
-rw-rw-r-- 1 nag-1211 nag-1211    188 Jan  3 19:55 exp4.c
-rw-rw-r-- 1 nag-1211 nag-1211   2076 Dec 21 21:09 ls.c
-rw-rw-r-- 1 nag-1211 nag-1211 218449 Dec 21 21:43 18BQ1A05K3_UNIX_EXP2.pdf
-rw-rw-r-- 1 nag-1211 nag-1211    246 Dec 21 21:09 pipe.c
-rw-rw-r-- 1 nag-1211 nag-1211 249589 Dec 21 21:39 18BQ1A05K3_UNIX_EXP3.docx
-rw-rw-r-- 1 nag-1211 nag-1211 349072 Dec 21 21:08 filecopy.png
-rw-rw-r-- 1 nag-1211 nag-1211 497928 Dec 21 21:30 18BQ1A05K3_UNIX_EXP2.docx
-rw-rw-r-- 1 nag-1211 nag-1211   6045 Jan  3 19:55 exp4
-rw-rw-r-- 1 nag-1211 nag-1211    614 Dec 21 21:09 copy.c
-rw-rw-r-- 1 nag-1211 nag-1211  95164 Dec 21 21:09 pipesnap.png
-rwxrwxr-x 1 nag-1211 nag-1211  16880 Jan  3 19:56 a.out
total 1704
```

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