

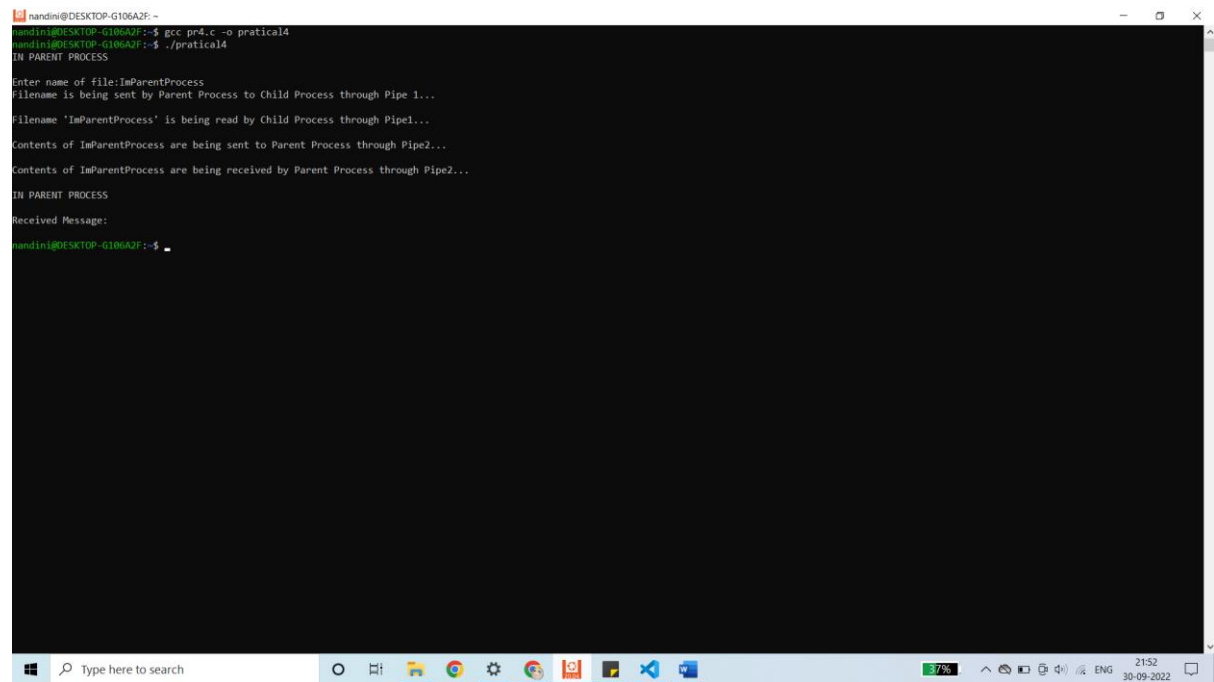
## CODE

```
#include<stdio.h>
#include<unistd.h>
#include<string.h>
#include<stdlib.h>
#include <sys/wait.h>
#include <sys/types.h>

int main(void)
{
    int fd1[2], nbytes=1,fd2[2],a=0;
    pid_t pid;
    char string[80];
    char readbuffer[80];
    char ch='a',ch1='\n';
    FILE *fp;
    pipe(fd1);//PIPE CREATED
    pipe(fd2);//PIPE CREATED
    /*Error in fork*/
    if((pid = fork()) == -1)
    {
        perror("fork");
        exit(1);
    }
    //Child Process
    if(pid == 0)
    {
        close(fd1[1]); /*closing write end of Pipe 1*/
        read(fd1[0], readbuffer, sizeof(readbuffer)); /*reading filename through Pipe
        1*/
        printf("\nFilename '%s' is being read by Child Process through Pipe1...\n",readbuffer);
        fp=fopen(readbuffer,"r");
        close(fd1[0]); /*closing read end of Pipe 1*/
        close(fd2[0]); /*closing read end of Pipe 2*/
        printf("\nContents of %s are being sent to Parent Process through Pipe2...\n",readbuffer);
        while(a!=-1)
        {
            a=fscanf(fp,"%c",&ch);
            write(fd2[1], &ch, sizeof(ch)); /*writing contents of file on Pipe 2*/
        }
        close(fd2[1]); /*closing write end of Pipe 2*/
        exit(0);
    }
    //Parent process
    else
    {
        close(fd1[0]); /*closing read end of Pipe 1*/
        printf("IN PARENT PROCESS\n" );
        printf("\nEnter name of file:");
        scanf("%s",string);
        printf("Filename is being sent by Parent Process to Child Process through Pipe 1...\n");
        write(fd1[1], string, (strlen(string)+1)); /*writing filename on Pipe 1*/
        wait(NULL);
        close(fd1[1]); /*closing write end of Pipe 1*/
        close(fd2[1]); /*closing write end of Pipe 2*/
        printf("\nContents of %s are being received by Parent Process through Pipe2...\n\n",string);
        printf("IN PARENT PROCESS\n" );
        printf("\nReceived Message:\n");
        while(nbytes!=0)
        {
            printf("%c",ch1);
            nbytes = read(fd2[0], &ch1, sizeof(ch1)); /*reading contents of file
```

```
from Pipe 2*/  
}  
close(fd2[0]); /*closing read end of Pipe 2*/  
}  
return(0);  
}
```

## OUTPUT



```
nandini@DESKTOP-G106A2F: ~  
nandini@DESKTOP-G106A2F:~$ gcc pr4.c -o practical4  
nandini@DESKTOP-G106A2F:~$ ./practical4  
IN PARENT PROCESS  
  
Enter name of file:ImParentProcess  
Filename is being sent by Parent Process to Child Process through Pipe 1...  
Filename 'ImParentProcess' is being read by Child Process through Pipe1...  
Contents of ImParentProcess are being sent to Parent Process through Pipe2...  
Contents of ImParentProcess are being received by Parent Process through Pipe2...  
IN PARENT PROCESS  
Received Message:  
nandini@DESKTOP-G106A2F:~$
```