

OS PRACTICAL 3

Name: harshwardhan tilekar

Roll No: 23

Batch: A2

Problem statement :

Implement Interprocess Communication using PIPE/Shared Memory/Message Passing

CODE

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

void processA(int);
void processB(int);

void processA(int writefd)
{
    int len;
    char buff[80];
    printf("Enter A String: ") ;
    fgets(buff,80,stdin);
    len=strlen(buff);
    if(buff[len-1]=='\n')
    {
        len--;
    }
    write(writefd,buff,len);
}

void processB(int readfd){
    int n,i,j;
```

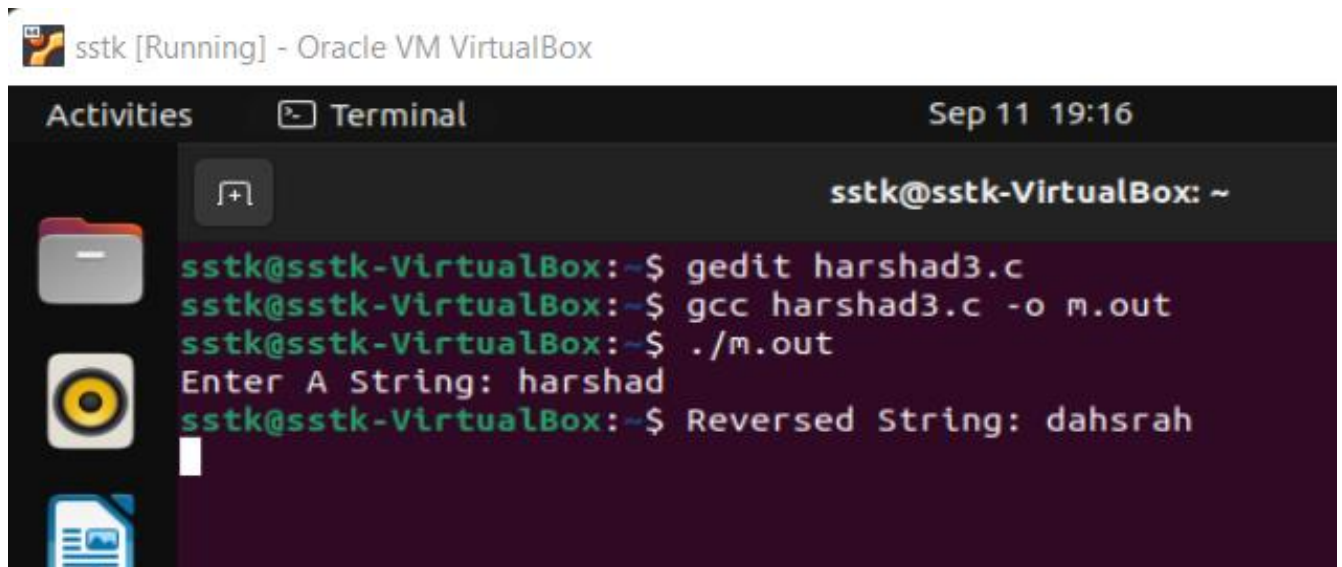
```

char str[80],temp;
n=read(readfd,str,80);
str[n]='\0';
i=0;
j=strlen(str)-1;
while(i<j)
{
temp=str[i];
str[i]=str[j];
str[j]=temp;
i++;
j--;
}
printf("Reversed String: %s\n",str);
}

int main(void){
int pipe1[2];
pid_t childpid;
pipe(pipe1);
childpid = fork();
if(childpid==0){
close(pipe1[1]);
processB(pipe1[0]);
}
else{
close(pipe1[0]);
processA(pipe1[1]);
}
return EXIT_SUCCESS;
}

```

OUTPUT



The screenshot shows a terminal window titled "sstk [Running] - Oracle VM VirtualBox". The terminal output is as follows:

```
sstk@sstk-VirtualBox:~$ gedit harshad3.c
sstk@sstk-VirtualBox:~$ gcc harshad3.c -o m.out
sstk@sstk-VirtualBox:~$ ./m.out
Enter A String: harshad
sstk@sstk-VirtualBox:~$ Reversed String: dahsrah
```

The terminal window has a dark background with green and white text. The prompt is `sstk@sstk-VirtualBox:~$`. The first command is `gedit harshad3.c`, which opens a file editor. The second command is `gcc harshad3.c -o m.out`, which compiles the program. The third command is `./m.out`, which runs the program. The program prompts "Enter A String:" and the user enters "harshad". The program then outputs "Reversed String: dahsrah".