#include <stdio.h>

#include <string.h>

#include <unistd.h>

//Function for writing string

void processA(int writefd)

{

char str[80]; //String variable

int strLen;

printf("\n--> Enter a string: ");

scanf("%s",str); //Taking Input

strLen = strlen(str);

if(str[strLen-1]=='\n') //Removing \n

{

strLen--;

}

write(writefd,str,strLen); //Writing to pipe

}

//Function for reading string

void processB(int readfd)

{

int strLen,i,j;

char str[80],temp;

strLen=read(readfd,str,80); //Reading from pipe

str[strLen]='\0'; //Appending special character indicating end of string

i=0;

j=strlen(str)-1;

while(i<j) //Reversing the string

{

temp=str[i];

str[i]=str[j];

str[j]=temp;

i++;

j--;

}

printf("\n--> Reversed string: %s\n",str);

}

//Main code

int main() {

int pipe1[2],childpid;

pipe(pipe1); //Pipe created

printf("\n\n--- String Reverse Utility ---\n\n");

childpid = fork(); //Child process created

if (childpid==0)

{

close (pipe1[1]); //Closing write end

processB (pipe1[0]);

}

else

{

close (pipe1[0]); //Closing read end

processA (pipe1[1]);

}

return 9;

}