

Assignment - 5

COE18B045

Please refer the comments in source file for explanation
Outputs screenshots are given below

1) Parent sets up a string which is read by child, reversed there and read back the parent

```
santi@edith:~/OS/L5$ gcc strrev.c
santi@edith:~/OS/L5$ ./a.out
inside parent.. enter string: abcde
'abcde' sent in pipe
recived in child: 'abcde'
reversal done, sent in pipe
recieved reverse in parent : 'edcba'
santi@edith:~/OS/L5$
```

2) Parent sets up string 1 and child sets up string 2. String 2 concatenated to string 1 at parent end and then read back at the child end.

```
santi@edith:~/OS/L5$ gcc strconcat.c
santi@edith:~/OS/L5$ ./a.out
inside child.. enter string 2: kings
'kings' sent in pipe from child
inside parent.. enter string 1: super
recived in parent: 'kings'
concat done, sent in pipe from parent
recieved concatenated string in child : 'superkings'
santi@edith:~/OS/L5$
```

3) Substring generation at child end of a string setup at parent process end.

```
santi@edith:~/OS/L5$ gcc substring.c
santi@edith:~/OS/L5$ ./a.out
inside parent.. enter string: interprocesscommunication
inside parent.. enter starting index: 5
inside parent.. enter length: 7
'interprocesscommunication' sent in pipe
recived in child:
string: 'interprocesscommunication', starting index: 5, length: 7
substring is: 'process'
csanti@edith:~/OS/L5$ ./a.out
inside parent.. enter string: abcde
inside parent.. enter starting index: 3
inside parent.. enter length: 5
'abcde' sent in pipe
recived in child:
string: 'abcde', starting index: 3, length: 5
index is out of range
santi@edith:~/OS/L5$
```

4) String reversal and palindrome check using pipes / shared memory.

```
santi@edith:~/OS/L5$ gcc palindrome.c
santi@edith:~/OS/L5$ ./a.out
inside parent.. enter string: code
'code' sent in pipe
recived in child: 'code'
reversal done, sent in pipe
recieved reverse from child in parent
original string : 'code'
reversed string : 'edoc'
string is not a palindrome
santi@edith:~/OS/L5$ ./a.out
inside parent.. enter string: level
'level' sent in pipe
recived in child: 'level'
reversal done, sent in pipe
recieved reverse from child in parent
original string : 'level'
reversed string : 'level'
string is a palindrome
santi@edith:~/OS/L5$
```