Lab Assignment - 6
(Operating Systems Practice)

Name: - M. Binesh
Roll : - CED19I036

1) First, we take input until a new line is encountered. Then the string is sent to the child and the ASCII sum is calculated before sending to the parent. For converting an integer to character array we use sprintf.

2) We input the string with integers which are space seperated. After splitting the numbers and push it into a vector we will sort it, after that we will send it to child before the same process happens again.
Used two functions str_to_arr and arr_to_str for processing the input.

3) Here, we first find the number of digits in a number and then find the armstrong number by adding the powers of all the individual digits. The final sum is then compared to the actual number, if it matches then it is an armstrong number.

1)

```
kuries@Beast:~/.../osp/lab6$ g++ q1.cpp && ./a.out
Enter the input string: aAb
Received the string (in child)

Total sum of the ascii (in parent)
260
kuries@Beast:~/.../osp/lab6$
```

2)

```
kuries@Beast:~/.../osp/lab6$ g++ q2.cpp && ./a.out
Enter the input string: 1 3 2 6 4 5
Printing from child in ascending order
1 2 3 4 5 6
Printing from parent in descending order
6 5 4 3 2 1
kuries@Beast:~/.../osp/lab6$
```

3)

```
kuries@Beast:~/.../osp/lab6$ g++ q3.cpp && ./a.out
Enter numbers in the array (Parent process)
66
370
371
54
39
Checking for Armstrong numbers (child process)
66: 0
370: 1
371: 1
54: 0
39: 0
```

M. BINESH
CSD19B036

) We input a string from P_1 process, then we send it to the shared memory and waits until P_2 processes the string and modifies the string sa the to '' the first element notifying that the process is complete. of the second element has the actual answer '0' or '1'!

4)


```
PROBLEMS    OUTPUT    TERMINAL    DEBUG CONSOLE

kuries@Beast:~/.../osp/lab6$ ./p1
Write Data (now in p1): refer
It is a pallindrome
kuries@Beast:~/.../osp/lab6$ []
```

```
kuries@Beast:~/.../osp/lab6$ ./p2
kuries@Beast:~/.../osp/lab6$ ▮
```