**AddressBook - Shell Programming Output**

student@studentcomp:~$ cd Desktop

student@studentcomp:~/Desktop$ ls

'~$quequizfinal (1) (1).pptx' BubbleSort.c nilesh 'OSL Prac-1.png' 'System Volume Information'

1.png 'Eclipse IDE for C' niraj priyanshu.cpp

address.sh 'emoji - Google Search\_files' OS S06\_Sahil\_Bheke

'Apache NetBeans-12.6.desktop' kralgo.cpp OS60 S190558566

'Assignment 8 OSL TE IT.odt' kralgoformst.cpp osfinal Sharvari

student@studentcomp:~/Desktop$ sh address.sh

enter ur choice

1.create

2.insert

3.veiw

4.modify

5.delete

6.exit

1

enter ur choice

1.create

2.insert

3.veiw

4.modify

5.delete

6.exit

2

enter a name

Shrushti

enter a address

pimpri

enter phone no

9245523280

enter email id

shwkob@gmail.com

enter ur choice

1.create

2.insert

3.veiw

4.modify

5.delete

6.exit

2

enter a name

Sakshi

enter a address

Chinchwad

enter phone no

9485215601

enter email id

shwenk@gmail.com

enter ur choice

1.create

2.insert

3.veiw

4.modify

5.delete

6.exit

3

show the contents of the address book

name address phoneno email

Shrushti pimpri 9245523280 shwkob@gmail.com

Sakshi Chinchwad 9485215601 shwenk@gmail.com

enter ur choice

1.create

2.insert

3.veiw

4.modify

5.delete

6.exit

4

enter ur name which u want to modify

Sakshi

enter a name

Sweety

enter a address

Pune

enter phone no

9865434567

enter email id

swdu@gmail.com

enter ur choice

1.create

2.insert

3.veiw

4.modify

5.delete

6.exit

5

enter ur name which u want to delete

Shrushti

enter ur choice

1.create

2.insert

3.veiw

4.modify

5.delete

6.exit

6

**Fork Bubble Sorting Output**

student@student-HP-Compaq-4000-Pro-SFF-PC:~$ gcc sorting.c

student@student-HP-Compaq-4000-Pro-SFF-PC:~$ ./a.out

Enter number of elements

5

Enter 5 numbers

22

1

67

3

20

Hello,I am the Parent process

Sorted list in decending order:

67

22

20

3

1

Hello,I am the Child process

Sorted list in ascending order:

1

3

20

22

67

student@student-HP-Compaq-4000-Pro-SFF-PC:~$

**Fork Sorting Output**

student@studentcomp:~/Desktop$ gcc s1.c -o s1

student@studentcomp:~/Desktop$ gcc f1.c -o f1

student@studentcomp:~/Desktop$ ./f1 s1 8 2 4 5

Sorted Array is

2

4

5

8

Converted to string args[1]=2

Converted to string args[2]=4

Converted to string args[3]=5

Converted to string args[4]=8

Now parent is passing the sorted array to s1 executable program

a[0]=2

a[1]=4

a[2]=5

a[3]=8

Please Enter the Element to be search using binary search

7

Number is not found.

**Round Robin Output**

student@studentcomp:~$ cd Desktop

student@studentcomp:~/Desktop$ gcc RR.c

student@studentcomp:~/Desktop$ ./a.out

Total number of process in the system: 3

Enter the Arrival and Burst time of the Process[1]

Arrival time is: 2

Burst time is: 6

Enter the Arrival and Burst time of the Process[2]

Arrival time is: 0

Burst time is: 7

Enter the Arrival and Burst time of the Process[3]

Arrival time is: 1

Burst time is: 2

Enter the Time Quantum for the process: 2

Process No Burst Time TAT Waiting Time

P3 2 5 3

P1 6 10 4

P2 7 15 8

Average Turn Around Time: 10.000000

Average Waiting Time: 5.000000

**Shortest Job First Output**

student@studentcomp:~$ cd Desktop

student@studentcomp:~/Desktop$ gcc sjfnp.c

student@studentcomp:~/Desktop$ ./a.out

Enter number of process: 3

Enter Burst Time:

P1: 1

P2: 0

P3: 3

P BT WT TAT

P2 0 0 0

P1 1 0 1

P3 3 1 4

Average Waiting Time= 0.333333

Average Turnaround Time= 1.666667

**Producer Consumer problem using counting semaphores and mutex**

(base) student@student-OptiPlex-390:~$ gcc assign04.c -lpthread

(base) student@student-OptiPlex-390:~$ ./a.out

Enter the no. of producers :3

Enter the no. of consumers :2

Enter the product to be produced:4

Producer id of producer:3305

Produced item by producer: 4

Consumer id of consumer:3308

Consumed item by consumer: 4

Enter the product to be produced:9

Producer id of producer:3306

Produced item by producer: 9

Consumer id of consumer:3309

Consumed item by consumer: 9

Enter the product to be produced:8

Producer id of producer:3307

Produced item by producer: 8

Consumer id of consumer:3308

Consumed item by consumer: 8

Buffer full

**Reader Writer Problem**

(base) student@student-OptiPlex-390:~$ gcc assg5.c -lpthread

(base) student@student-OptiPlex-390:~$ ./a.out

writer:enter an item into buffer

4

thread=2752

reader:read item from buffer=4

thread=2751

reader:read item from buffer=4

writer:enter an item into buffer

4

thread=2751

thread=2752

reader:read item from buffer=4

reader:read item from buffer=4

writer:enter an item into buffer

6

thread=2752

reader:read item from buffer=6

thread=2751

reader:read item from buffer=6

writer:enter an item into buffer

^C

**FCFS – Page Replacement Algorithms**

student@studentcomp:~$ cd Desktop

student@studentcomp:~/Desktop$ gcc fcfs2.c

student@studentcomp:~/Desktop$ ./a.out

How many Elements you want to enter:3

Enter Burst time for P0:2

Enter Burst time for P1:5

Enter Burst time for P2:7

Process Details are:

Process Burst Time

P0 2

P1 5

P2 7

Waiting Time of P0 is 0

Waiting Time of P1 is 2

Waiting Time of P2 is 7

Turn Around Time of P0 is 2

Turn Around Time of P1 is 7

Turn Around Time of P2 is 14

Process Burst Time Waiting Time Turn-Around Time

P0 2 0 2

P1 5 2 7

P2 7 7 14

Average Waiting Time: 3

Average Turn Around Time: 7

**LRU,FIFO,OPT Output**

shrushti-04@shrushti:~/te$ ./ass6

Enter the no of empty frames: 3

Enter the length of the string: 6

Enter the string: 130356

\*\*\*\*\*\*\*\*\*\*\* MENU \*\*\*\*\*\*\*\*\*\*\*

1:FIFO

2:LRU

3:OPT

4:EXIT

Enter your choice: 1

PAGE FRAMES FAULTS

1 1 Page-fault0

3 1 3 Page-fault1

0 1 3 0 Page-fault2

3 1 3 0 No page-fault

5 5 3 0 Page-fault3

6 5 6 0 Page-fault4

Do u want to continue IF YES PRESS 1

IF NO PRESS 0 : 1

\*\*\*\*\*\*\*\*\*\*\* MENU \*\*\*\*\*\*\*\*\*\*\*

1:FIFO

2:LRU

3:OPT

4:EXIT

Enter your choice: 2

PAGE FRAMES FAULTS

1 1 Page-fault0

3 1 3 Page-fault1

0 1 3 0 Page-fault2

3 1 0 3 No page fault

5 0 3 5 Page-fault3

6 3 5 6 Page-fault4

Do u want to continue IF YES PRESS 1

IF NO PRESS 0 : 1

\*\*\*\*\*\*\*\*\*\*\* MENU \*\*\*\*\*\*\*\*\*\*\*

1:FIFO

2:LRU

3:OPT

4:EXIT

Enter your choice: 3

PAGE FRAMES FAULTS

1 1 Page-fault 0

3 1 3 Page-fault 1

0 1 3 0 Page-fault 2

3 1 3 0 No Page-fault

5 5 3 0 Page-fault 3

6 6 3 0 Page-fault 4

Do u want to continue IF YES PRESS 1

IF NO PRESS 0 : 0

shrushti-04@shrushti:~/te$

**Bankers Output**

Enter the no of processes: 5

Enter the no of resources: 3

Enter the total instances of resources: 10

5

7

Enter the allocated instances for each process

Process0: 0

1

0

Process1: 2

0

0

Process2: 3

0

2

Process3: 2

1

1

Process4: 0

0

2

Enter the max instances required for each process

Process 0: 7

5

3

Process 1: 3

2

2

Process 2: 9

0

2

Process 3: 2

2

2

Process 4: 4

3

3

The available matrix is: 3 3 2

The need matrix is:

Process 0: 7 4 3

Process 1: 1 2 2

Process 2: 6 0 0

Process 3: 0 1 1

Process 4: 4 3 1

For process 0:

Process 0 cannot be granted resources....Going to next process

For process 1:

Process 1 can be granted resources..

New Available resources are

5 3 2

For process 2:

Process 2 cannot be granted resources....Going to next process

For process 3:

Process 3 can be granted resources..

New Available resources are

7 4 3

For process 4:

Process 4 can be granted resources..

New Available resources are

7 4 5

For process 0:

Process 0 can be granted resources..

New Available resources are

7 5 5

For process 2:

Process 2 can be granted resources..

New Available resources are

10 5 7

System is in a SAFE STATE

SAFE SEQUENCE is

Process1 Process3 Process4 Process0 Process2