

DATE:-27/09/22

COURSE NAME:-OPERATING SYSTEM WITH DESIGN PRINCIPLES.

COURSE CODE:-CSA0470.

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EXPERIMENT:6(ROUND ROBIN)

```
C:\Users\chall\OneDrive\Documents\round robin.exe
Enter Total Process: 4
Enter Arrival Time and Burst Time for Process Process Number 1 :4
6
Enter Arrival Time and Burst Time for Process Process Number 2 :6
9
Enter Arrival Time and Burst Time for Process Process Number 3 :12
6
Enter Arrival Time and Burst Time for Process Process Number 4 :25
5
Enter Time Quantum: 5

Process |Turnaround Time|Waiting Time
P[1]    |      2      |    -4
P[2]    |      9      |      0
P[3]    |      9      |      3
```

EXPERIMENT:7(INTER PROCESS COMMUNICATION)

```
main.c
1 #include<stdio.h>
2 #include<stdlib.h>
3 #include<unistd.h>
4 #include<sys/shm.h>
5 #include<string.h>
6 int main()
7 {
8     int i;
9     void *shared_memory;
10    char buff[100];
11    int shmid;
12    shmid=shmget((key_t)2345, 1024, 0666|IPC_CREAT);
13    printf("Key of shared memory is %d\n",shmid);
14    shared_memory=shmat(shmid,NULL,0);
15    printf("Process attached at %p\n",shared_memory);
16    printf("Enter some data to write to shared memory\n");
17    read(0,buff,100);
18    strcpy(shared_memory,buff);
19    printf("You wrote : %s\n",(char *)shared_memory);
20 }
```

Output

```
/tmp/WvvZh0w3Uy.o
Key of shared memory is 0
Process attached at 0x7f648a26c000
Enter some data to write to shared memory
6
You wrote : 6

5
dash: 2: 5: not found
```

EXPERIMENT:8(MULTITHREADING)

```
C:\Users\chall\OneDrive\Documents\multithreadingos.exe
value: 4 sum 4
value: 1 sum 5
value: 2 sum 7
value: 2 sum 9
value: 6 sum 15
value: 3 sum 18
Total: 18

-----
Process exited after 0.1266 seconds with return value 0
Press any key to continue . . .
```

EXPERIMENT:9(DINING PHILOSOPHER)

```
C:\Users\chall\OneDrive\Documents\DINING PHILOSOPHER.exe
Philosopher 0 has entered room
Philosopher 0 is eating
Philosopher 4 has entered room
Philosopher 3 has entered room
Philosopher 2 has entered room
Philosopher 0 has finished eating
Philosopher 1 has entered room
Philosopher 4 is eating
Philosopher 4 has finished eating
Philosopher 3 is eating
Philosopher 3 has finished eating
Philosopher 2 is eating
Philosopher 2 has finished eating
Philosopher 1 is eating
Philosopher 1 has finished eating
-----
Process exited after 10.1 seconds with return value 0
Press any key to continue . . .
```

EXPERIMENT:10(MEMORY ALLOCATION USING FIRST FIT STRATEGY)

```
C:\Users\chall\OneDrive\Documents\FIRSTFIT MEMORY ALLOCATION.exe
Enter no. of blocks: 4
Enter size of each block: 3
6
8
12
Enter no. of processes: 4
Enter size of each process: 9
12
35
66
Block no.      size      process no.      size
1              3      Not allocated
2              6      Not allocated
3              8      Not allocated
4             12      1              9
-----
Process exited after 27.7 seconds with return value 4
Press any key to continue . . .
```