

EXPLORES

OPEN EDITORS

OPERATING SYSTEM

.vscode

CPUSCHEDULING.dSYM

FILE.dSYM

FILE2.dSYM

PARENTID.dSYM

QUESTION

SMALLESTEXCEUTION.dSYM

11Multithreading

11Multithreading.c

12Philosopher

12Philosopher.c

13memoryallocation

13memoryallocation.c

CPUSCHEDULING

CPUSCHEDULING.c

FILE

FILE.c

FILE2

FILE2.c

HIGHESTPRIORITY

HIGHESTPRIORITY.C

INTERPROCESS

INTERPROCESS.c

MSGQUEUE

MSGQUEUE.c

PARENTID

PARENTID.c

PREEMPTIVE

PREEMPTIVE.c

ROUNDROBIN

ROUNDROBIN.c

SJFALGORITHM

SJFALGORITHM.c

OUTLINE

TIMELINE

13memoryallocation.c > allocateWorstFit(MemoryBlock [], int, int, int)

```
1 #include <stdio.h>
2 #include <stdlib.h>
3 #include <limits.h>
4
5 #define MEMORY_SIZE 100
6
7 // Memory block structure
8 struct MemoryBlock {
9     int id;           // Process ID
```

PROBLEMS

OUTPUT

DEBUG CONSOLE

TERMINAL

PORTS

SQL CONSOLE

Code

cd "/Users/tharishkumar/Desktop/CURRENT SUB FILES/OPERATING SYSTEM/" && gcc 13memoryallocation.c -o

tharishkumar@tharishs-MacBook-Air OPERATING SYSTEM % cd "/Users/tharishkumar/Desktop/CURRENT SUB FILES/OPERATING SYSTEM/" && gcc 13memoryallocation

.c -o 13memoryallocation && "/Users/tharishkumar/Desktop/CURRENT SUB FILES/OPERATING SYSTEM/"13memoryallocation

Memory Allocation Strategies

1. First Fit

2. Best Fit

3. Worst Fit

4. Exit

Enter your choice: 1

Enter process ID and size: 15

2

Memory allocation failed for process 15 with size 2

Memory Blocks:

Block	ID	Size	Allocated
0	-1	0	Free
1	-1	0	Free
2	-1	0	Free
3	-1	0	Free
4	-1	0	Free
5	-1	0	Free
6	-1	0	Free
7	-1	0	Free
8	-1	0	Free
9	-1	0	Free
10	-1	0	Free
11	-1	0	Free
12	-1	0	Free
13	-1	0	Free
14	-1	0	Free
15	-1	0	Free
16	-1	0	Free
17	-1	0	Free
18	-1	0	Free
19	-1	0	Free
20	-1	0	Free
21	-1	0	Free

0 0 0

0

Connect

Spaces: 4

UTF-8

C

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EXPLORER

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OPERATING SYSTEM

.vscode

CPUSCHEDULING.dSYM

FILE.dSYM

FILE2.dSYM

PARNENTID.dSYM

QUESTION

SMALLESTEXCEUTION.dSYM

11Multithreating

11Multithreating.c

12Philosopher

12Philosopher.c

13memoryallocation

13memoryallocation.c

14.FileDirectory

14.FileDirectory.c

CPUSCHEDULING

CPUSCHEDULING.c

FILE

FILE.c

FILE2

FILE2.c

HIGHESTPRIORITY

HIGHESTPRIORITY.C

INTERPROCESS

INTERPROCESS.c

MSGQUEUE

MSGQUEUE.c

PARNENTID

PARNENTID.c

PREEMPTIVE

PREEMPTIVE.c

ROUNDROBIN

ROUNDROBIN.c

OUTLINE

TIMELINE

OPERATING SYSTEM

14.FileDirectory.c > clearInputBuffer()

```
1 #include <stdio.h>
2 #include <stdlib.h>
3 #include <string.h>
4
5 #define MAX_FILENAME_LENGTH 50
6
7 // File structure
8 struct File {
9     int id;
```

PROBLEMS

OUTPUT

DEBUG CONSOLE

TERMINAL

PORTS

SQL CONSOLE

Code

```
cd "/Users/tharishkumar/Desktop/CURRENT SUB FILES/"
tharishkumar@tharishs-MacBook-Air OPERATING SYSTEM % cd "/Users/tharishkumar/Desktop/CURRENT SUB FILES/OPERATING SYSTEM/" && gcc 14.FileDirectory.c -o 14.FileDirectory && "/Users/tharishkumar/Desktop/CURRENT SUB FILES/OPERATING SYSTEM/"14.FileDirectory
```

```
Single-Level Directory Operations
1. Add File
2. Delete File
3. List Files
4. Exit
Enter your choice: 1
Enter file ID and name: 1
tharish
File 'tharish' added with ID 1

Single-Level Directory Operations
1. Add File
2. Delete File
3. List Files
4. Exit
Enter your choice: 
```

0 0 0

0 0 0

0 0 0

Connect

Spaces: 4

UTF-8

{ } C

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EXPLORER

OPEN EDITORS

OPERATING SYSTEM

.vscode

CPUSHEDULING.dSYM

FILE.dSYM

FILE2.dSYM

level1

PARNENTID.dSYM

QUESTION

SMALLESTEXCEUTION.dSYM

source

11Multithreating

11Multithreating.c

12Philosopher

12Philosopher.c

13memoryallocation

13memoryallocation.c

14.FileDirectory

14.FileDirectory.c

15Filewodirectory

15Filewodirectory.c

CPUSHEDULING

CPUSHEDULING.c

FILE

FILE.c

FILE2

FILE2.c

HIGHESTPRIORITY

HIGHESTPRIORITY.C

INTERPROCESS

INTERPROCESS.c

MSGQUEUE

MSGQUEUE.c

PARNENTID

PARNENTID.c

OUTLINE

TIMELINE

11Multithreating.c

12Philosopher.c

13memoryallocation.c

14.FileDirectory.c

15Filewodirectory.c

SM.

15Filewodirectory.c > ...

45

46

47 closedir(dir);

48 }

49

50 int main() {

51 const char *source_dir = "source";

52 const char *dest_dir = "level1";

53

PROBLEMS

OUTPUT

DEBUG CONSOLE

TERMINAL

PORTS

SQL CONSOLE

Code

+

-

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⋮

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cd "/Users/tharishkumar/Desktop/CURRENT SUB FILES/OPERATING SYSTEM/" && gcc 15Filewodirectory.c -o

tharishkumar@tharishs-MacBook-Air OPERATING SYSTEM % cd "/Users/tharishkumar/Desktop/CURRENT SUB FILES/OPERATING SYSTEM/" && gcc 15Filewodirectory

.c -o 15Filewodirectory && "/Users/tharishkumar/Desktop/CURRENT SUB FILES/OPERATING SYSTEM/"15Filewodirectory

Files organized successfully!

tharishkumar@tharishs-MacBook-Air OPERATING SYSTEM %

0 0 0

0

Connect

Spaces: 4

UTF-8

{ }

C

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
✓ OPERATING SYSTEM

> source

≡ 16EmployeeDetails

MSGQUEUE

> TIMELINE



```
9 // Structure to represent an employee
```

SQL CONSOLE

```
tharishkumar@tharishs-MacBook-Air OPERATING SYSTEM % cd "/Users/tharishkumar/Desktop/CURRENT SUB FILES/OPERATING SYSTEM/" && gcc 16EmployeeDetails.c -o 16EmployeeDetails && "/Users/tharishkumar/Desktop/CURRENT SUB FILES/OPERATING SYSTEM/"16EmployeeDetails
```

Employee added successfully!

Enter your choice: ☐

C SMAI     

> TIMELINE

```
9 void calculateNeed(int need[MAX_P][MAX_R], int max[MAX_P][MAX_R], int alloc[MAX_P][MAX_R],
```

Code +     ...  

Safe sequence is: 0

```
o tharishkumar@tharishs-MacBook-Air OPERATING SYSTEM %
```


EXPLORER

OPEN EDITORS

OPERATING SYSTEM

14.FileDirectory

14.FileDirectory.c

15Filewodirectory

15Filewodirectory.c

16EmployeeDetails

16EmployeeDetails.c

Bankeralgorithm

Bankeralgorithm.c

CPUSHEDULING

CPUSHEDULING.c

employees.dat

FILE

FILE.c

FILE2

FILE2.c

HIGHESTPRIORITY

HIGHESTPRIORITY.C

INTERPROCESS

INTERPROCESS.c

MSGQUEUE

MSGQUEUE.c

PARNENTID

PARNENTID.c

PREMEMPTIVE

PREMEMPTIVE.c

Producerconsumer

Producerconsumer.c

ROUNDROBIN

ROUNDROBIN.c

SJFALGORITHM

SJFALGORITHM.c

SMALLESTEXCEUTION

SMALLESTEXCEUTION.c

OUTLINE

TIMELINE

OPERATING SYSTEM

14.FileDirectory.c

15Filewodirectory.c

16EmployeeDetails.c

Bankeralgorithm.c

Producerconsumer.c

SV

Producerconsumer.c > ...

40 printf("Consumed: %d\n", item);

41 out = (out + 1) % BUFFER_SIZE;

42

43 pthread_mutex_unlock(&mutex);

44 sem_post(&empty); // Increment the count of empty slots

45

46 usleep(500000); // Sleep for 500 milliseconds

47 }

48 pthread_exit(NULL);

PROBLEMS

OUTPUT

DEBUG CONSOLE

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PORTS

SQL CONSOLE

Code

#define __deprecated __attribute__((__deprecated__))

4 warnings generated.

Produced: 1

Consumed: 1

Consumed: 0

Produced: 2

Consumed: 0

Produced: 3

Produced: 4

Consumed: 4

Produced: 5

Consumed: 5

Consumed: 1

Produced: 6

Consumed: 2

Produced: 7

Consumed: 3

Produced: 8

Consumed: 4

Produced: 9

Consumed: 5

Produced: 10

Consumed: 6

Produced: 11

Consumed: 7

Produced: 12

Produced: 13

Consumed: 13

Produced: 14

Consumed: 14

Consumed: 10

Produced: 15

Consumed: 11

Produced: 16

Produced: 17

Consumed: 17

Produced: 18

0 0 0

0

Connect

Spaces: 4

UTF-8

C

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> TIMELINE

C 20ReaderWriter.c > ...

```
1 #include <stdio.h>
2 #include <stdlib.h>
3 #include <dirent.h>
4
5 int main() {
6     DIR *directory;
7     struct dirent *entry;
8
9     // Open the current directory
```

PROBLEMS OUTPUT DEBUG CONSOLE **TERMINAL** PORTS SQL CONSOLE

```
cd "/Users/tharishkumar/Desktop/CURRENT SUB FILES/OPERATING SYSTEM/" && gcc 20ReaderWriter.c -o 20ReaderWriter
tharishkumar@tharishs-MacBook-Air OPERATING SYSTEM % cd "/Users/tharishkumar/Desktop/CURRENT SUB FILES/OPERATING SYSTEM/" && gcc 20ReaderWriter.c -o 20ReaderWriter && "/Users/tharishkumar/Desktop/CURRENT SUB FILES/OPERATING SYSTEM/"20ReaderWriter
```

HIGHESTPRIORITY
15Filewodirectory
PARVENTID.c
SMALLESTEXCEUTION.c
PARVENTID.dSYM
PREEMPTIVE
16EmployeeDetails
FILE2.c
.DS_Store
SMALLESTEXCEUTION
FILE2
13memoryallocation
17Bankalgorithm.c
FILE
employees.dat
HIGHESTPRIORITY.C
source
INTERPROCESS
14.FileDirectory
Bankalgorithm
14.FileDirectory.c
INTERPROCESS.c
CPUSCHEDULING.dSYM
MSGQUEUE.c
QUESTION
20ReaderWriter.c
SJFALGORITHM
PREEMPTIVE.c
18Producerconsumer.c
15Filewodirectory.c
ROUNDROBIN.c
13memoryallocation.c
SJFALGORITHM.c