

CSE 321
Assignment- 04

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Section: 13
Semester: Spring 2024

Screenshots

Task- 01

```
rajin@rajin: ~/22101717_CSE321_A-04
rajin@rajin:~/22101717_CSE321_A-04$ gcc -o cp task1.c -lpthread
task1.c: In function 'main':
task1.c:40:46: warning: passing argument 3 of 'pthread_create' from incompatible pointer type [-Wincompatible-pointer-types]
   40 |         pthread_create(&thread[i], NULL, producer, &thread_id[i]);
      |                                     ^
      |                                     void * (*)(int *)
In file included from task1.c:1:
/usr/include/pthread.h:204:36: note: expected 'void * (*)(void *)' but argument is of type 'void * (*)(int *)'
   204 |         void *(*__start_routine) (void *),
      |         ^
task1.c:42:46: warning: passing argument 3 of 'pthread_create' from incompatible pointer type [-Wincompatible-pointer-types]
   42 |         pthread_create(&thread[i], NULL, consumer, &thread_id[i]);
      |                                     ^
      |                                     void * (*)(int *)
In file included from task1.c:1:
/usr/include/pthread.h:204:36: note: expected 'void * (*)(void *)' but argument is of type 'void * (*)(int *)'
   204 |         void *(*__start_routine) (void *),
      |         ^
task1.c:31:5: warning: '__builtin_memcpy' writing 7 bytes into a region of size 6 overflows the destination [-Wstringop-overflow=]
   31 |         strcpy(source, "abcdef");
      |         ^
task1.c:14:6: note: destination object 'source' of size 6
   14 |     char source[BUFLen]; //from this array producer will store its production into buffer
      |     ^
rajin@rajin:~/22101717_CSE321_A-04$ ./cp
0 produced a by Thread 0
0 consumed a by Thread 1
1 produced b by Thread 0
2 produced c by Thread 0
3 produced d by Thread 0
4 produced e by Thread 0
5 produced f by Thread 0
6 produced a by Thread 0
1 consumed b by Thread 1
2 consumed c by Thread 1
```

```
rajin@rajin: ~/22101717_CSE321_A-04
/usr/include/pthread.h:204:36: note: expected 'void * (*)(void *)' but argument is of type 'void * (*)(int *)'
   204 |         void *(*__start_routine) (void *),
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task1.c:42:46: warning: passing argument 3 of 'pthread_create' from incompatible pointer type [-Wincompatible-pointer-types]
   42 |         pthread_create(&thread[i], NULL, consumer, &thread_id[i]);
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task1.c:14:6: note: destination object 'source' of size 6
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rajin@rajin:~/22101717_CSE321_A-04$ ./cp
0 produced a by Thread 0
0 consumed a by Thread 1
1 produced b by Thread 0
2 produced c by Thread 0
3 produced d by Thread 0
4 produced e by Thread 0
5 produced f by Thread 0
6 produced a by Thread 0
1 consumed b by Thread 1
2 consumed c by Thread 1
7 produced b by Thread 0
3 consumed d by Thread 1
8 produced c by Thread 0
4 consumed e by Thread 1
9 produced d by Thread 0
5 consumed f by Thread 1
6 consumed a by Thread 1
```

Task- 02

```
rajin@rajin: ~/22101717_CSE321_A-04
rajin@rajin:~/22101717_CSE321_A-04$ gcc -o cp task2.c -lpthread
task2.c: In function 'Farmer':
task2.c:40:9: warning: implicit declaration of function 'sleep' [-Wimplicit-function-declaration]
   40 |         sleep(1);
       |         ^~~~~~
rajin@rajin:~/22101717_CSE321_A-04$ ./cp
Farmer 2: Insert crops R at 0
Farmer 1: Insert crops R at 1
Shop owner 2: Remove crops R from 0
Farmer 3: Insert crops R at 2
Farmer 4: Insert crops R at 3
Shop owner 1: Remove crops R from 1
Shop owner 3: Remove crops R from 2
Shop owner 4: Remove crops R from 3
Farmer 5: Insert crops R at 4
Shop owner 5: Remove crops R from 4
Farmer 1: Insert crops W at 0
Shop owner 2: Remove crops W from 0
Farmer 4: Insert crops W at 1
Shop owner 5: Remove crops W from 1
Farmer 2: Insert crops W at 2
Farmer 5: Insert crops W at 3
Shop owner 3: Remove crops W from 2
Shop owner 4: Remove crops W from 3
Farmer 3: Insert crops W at 4
Shop owner 1: Remove crops W from 4
Farmer 4: Insert crops P at 0
Shop owner 2: Remove crops P from 0
Farmer 1: Insert crops P at 1
Shop owner 5: Remove crops P from 1
Farmer 2: Insert crops P at 2
Farmer 5: Insert crops P at 3
Shop owner 3: Remove crops P from 2
Shop owner 1: Remove crops P from 3
Farmer 3: Insert crops P at 4
Shop owner 4: Remove crops P from 4
Farmer 1: Insert crops S at 0
```

```
rajin@rajin: ~/22101717_CSE321_A-04
Farmer 2: Insert crops W at 2
Farmer 5: Insert crops W at 3
Shop owner 3: Remove crops W from 2
Shop owner 4: Remove crops W from 3
Farmer 3: Insert crops W at 4
Shop owner 1: Remove crops W from 4
Farmer 4: Insert crops P at 0
Shop owner 2: Remove crops P from 0
Farmer 1: Insert crops P at 1
Shop owner 5: Remove crops P from 1
Farmer 2: Insert crops P at 2
Farmer 5: Insert crops P at 3
Shop owner 3: Remove crops P from 2
Shop owner 1: Remove crops P from 3
Farmer 3: Insert crops P at 4
Shop owner 4: Remove crops P from 4
Farmer 1: Insert crops S at 0
Shop owner 3: Remove crops S from 0
Farmer 4: Insert crops S at 1
Shop owner 1: Remove crops S from 1
Farmer 2: Insert crops S at 2
Farmer 5: Insert crops S at 3
Shop owner 2: Remove crops S from 2
Shop owner 5: Remove crops S from 3
Farmer 3: Insert crops S at 4
Shop owner 4: Remove crops S from 4
Farmer 1: Insert crops M at 0
Farmer 4: Insert crops M at 1
Shop owner 3: Remove crops M from 0
Shop owner 1: Remove crops M from 1
Farmer 2: Insert crops M at 2
Farmer 5: Insert crops M at 3
Shop owner 2: Remove crops M from 2
Shop owner 5: Remove crops M from 3
Farmer 3: Insert crops M at 4
Shop owner 4: Remove crops M from 4
rajin@rajin:~/22101717_CSE321_A-04$
```