Government Engineering College Thrissur

CS331 – System Software

LabDocumentation

Exp1 – CPU Scheduling Algorithm

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GECT CSE S5

Experiment 2:

Simulate the following file allocation strategies

1. Sequential 2. Linked 3.Indexed

Compilation of CodePrerequisite

• The code is provided in the **program.c** along with this documentation. You can open the terminal in Linux (Ubuntu 18.04 tested). Then run the command

gcc program.c

./a.out

There are **four input files in this program**

• Sequential: **sequential_input.txt**

If we want to change the contents of the file. Enter it in the following format

Starting Address (Number) <Tab> Length(Number) <Tab> Content as string

• Linked: **linked_memory_input.txt** and **linked_process_input.txt**

- ***linked_memory_input.txt:*** If we want to change the contents of the file containing the memory link information. Enter it in the following format

Current Address (Number) <Tab> Next Address(Number)

- ***linked_process_input.txt:*** If we want to change the contents of the file containing the process information. Enter it in the following format

Process ID (Number) <Tab> Length(Number) <Tab> Content as string

• Indexed: **indexed_input.txt**

If we want to change the contents of the file. Enter it in the following format

Starting Address (Number) <Tab> Length(Number) <Tab> Index (Number) <Tab> Content as string

Note that there should not be new line or blank line at the end of file

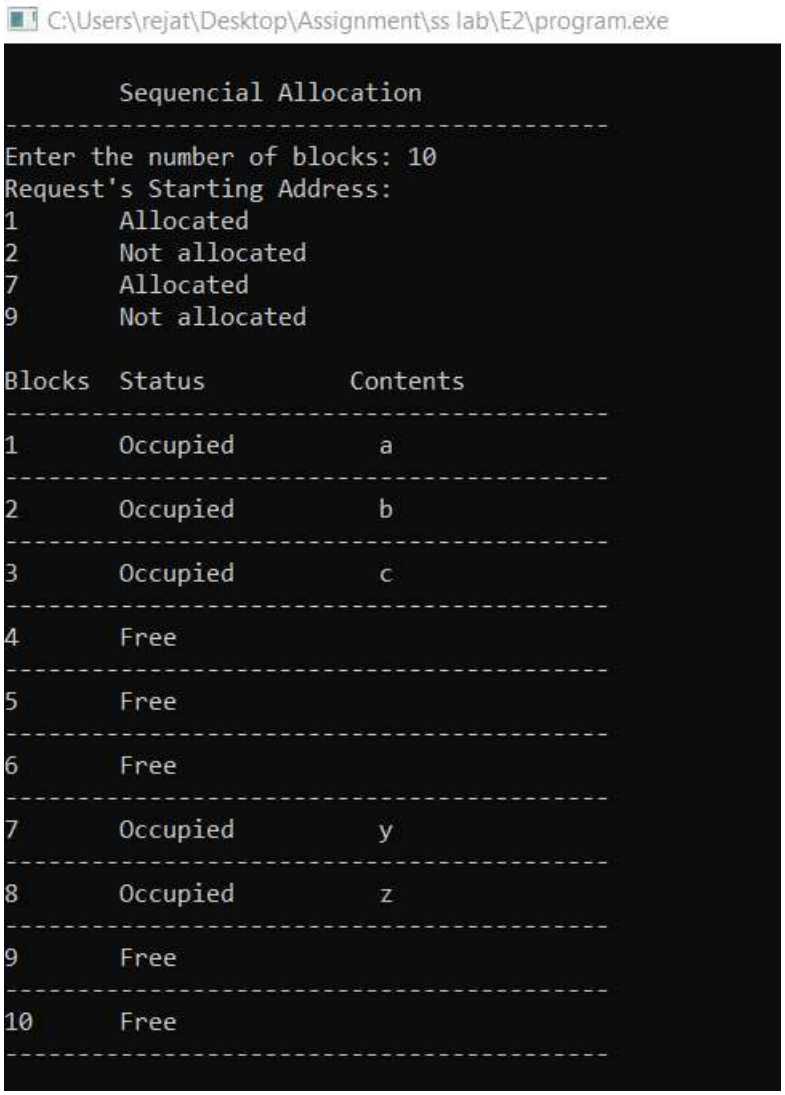
• Output of the code will be printed on the **console** as well as to a text file named **output.txt**

• **Note: Please see the my_machine_output.txt file for the output I got on my machine.**

Output / Screenshots

Output of each menu item

1.Sequential Allocation



2.Linked List Allocation

C:\Users\rejat\Desktop\Assignment\ss lab\E2\program.exe

```
        Linked Allocation
----------------------------------------
Enter the number of blocks: 10

Process Start   End     Status
1       1       2       Alloted
2       7       7       Alloted
3       3       4       Alloted
4       6       0       Not Alloted

Contents of process
P1
        1       a
        5       b
        2       c
----------------------------------------
P2
        7       x
----------------------------------------
P3
        3       y
        4       z
----------------------------------------
P4
----------------------------------------
```

3.Indexed Allocation

C:\Users\rejat\Desktop\Assignment\ss lab\E2\program.exe

```
        Indexed Allocation
----------------------------------------
Enter the number of blocks: 10
Process         Index           Blocks          Status
-------------------------------------------------------
P1              7       1,2,3,          Alloted
P2              8       4,              Alloted
P3              3                       Not Alloted
P4              4                       Not Alloted

Allocation
Index   Block   Contents
7       1       a
7       2       b
7       3       c
8       4       x
```