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Computer & system engineering department

**Documentation on :**  
***Memory Allocation Project***

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**Section:** 2

## **How to use the program**

- 1- Choose the Allocation Method
- 2- Enter the Memory size
- 3- Enter the number of holes & the number of processes
- 4- Fill the holes table with the start address and the size of each hole
- 5- Enter each process size
- 6- Press **"Save"**

### **7- For Allocation**

Choose the process you want to allocate from the drop menu  
then press **"Allocate"**

### **8- For Deallocation**

Choose the process you want to Deallocate from the drop menu  
then press **"Deallocate"**

**PS : "Block"** means a process has been allocated before the program start

# Test cases For the program

## 1- First Fit

### Allocation Method

☒ FirstFit

☐ BestFit

Memory Size

No. of Holes

No. of Processes

|   | Hole Starting Address            | Hole Size                        |
|---|----------------------------------|----------------------------------|
| 1 | <input type="text" value="100"/> | <input type="text" value="10"/>  |
| 2 | <input type="text" value="200"/> | <input type="text" value="30"/>  |
| 3 | <input type="text" value="500"/> | <input type="text" value="200"/> |

| Name | Process Size                    |
|------|---------------------------------|
| P0   | <input type="text" value="20"/> |
| P1   | <input type="text" value="50"/> |

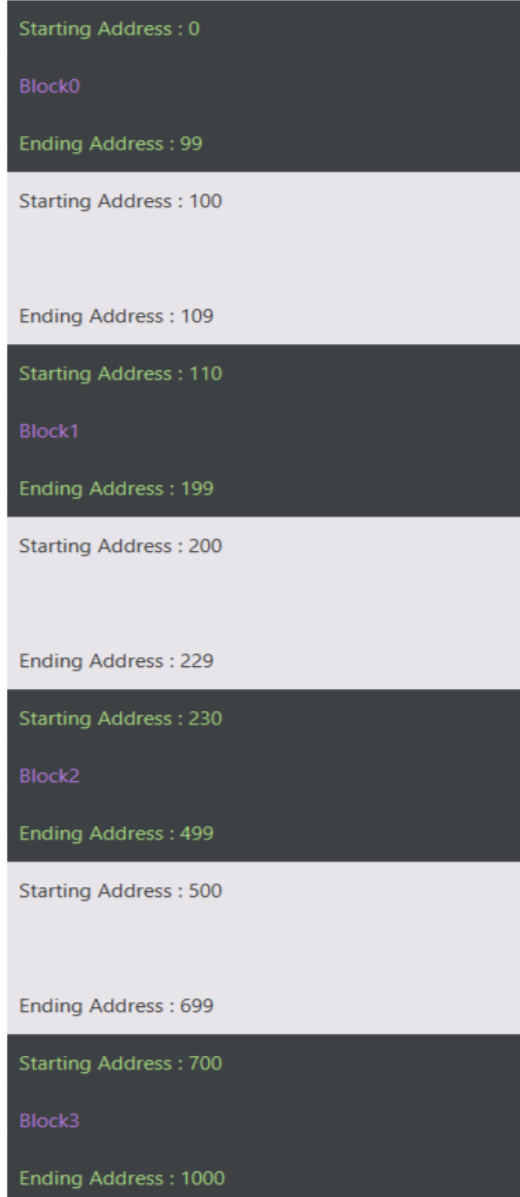
Save

Allocate Process ▼

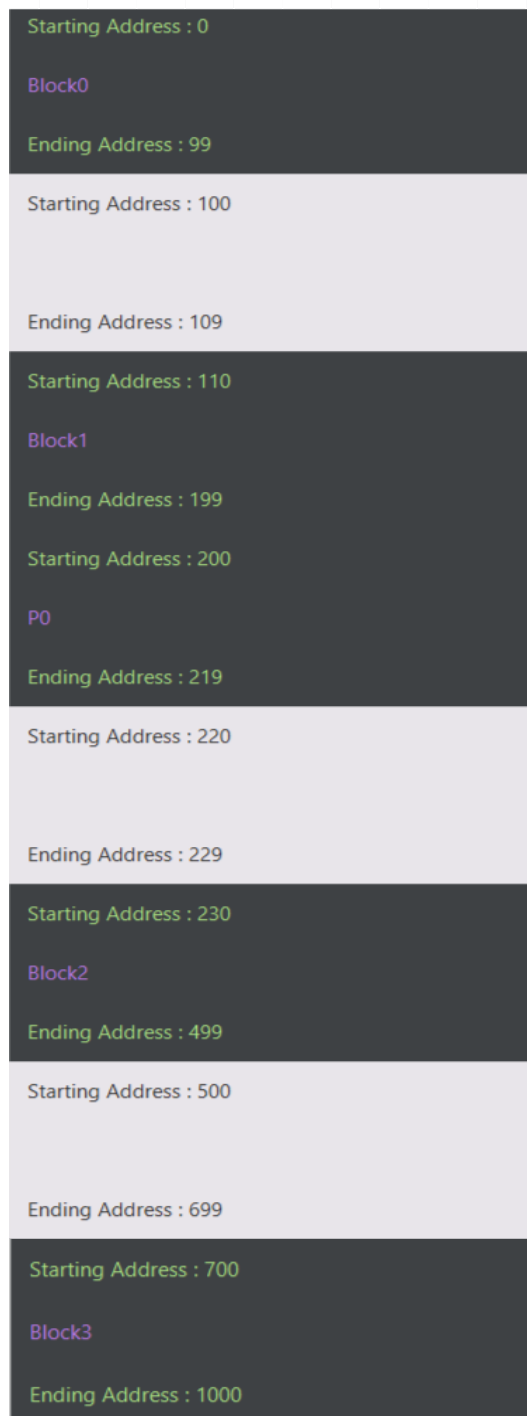
Allocate

DeAllocate Process ▼

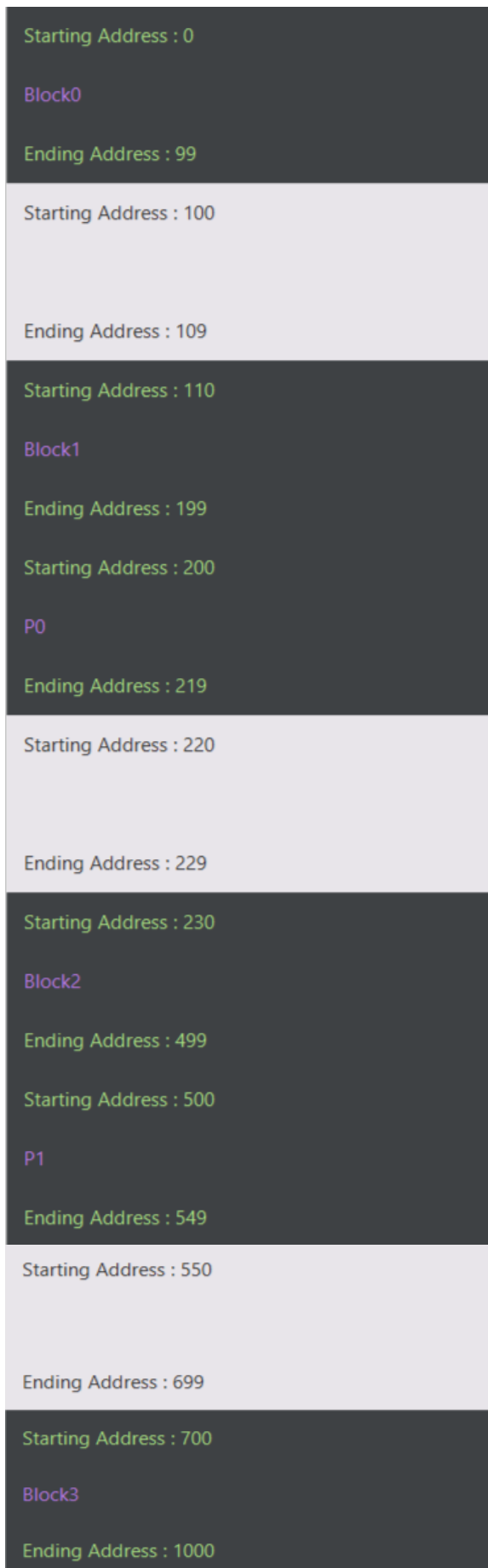
DeAllocate



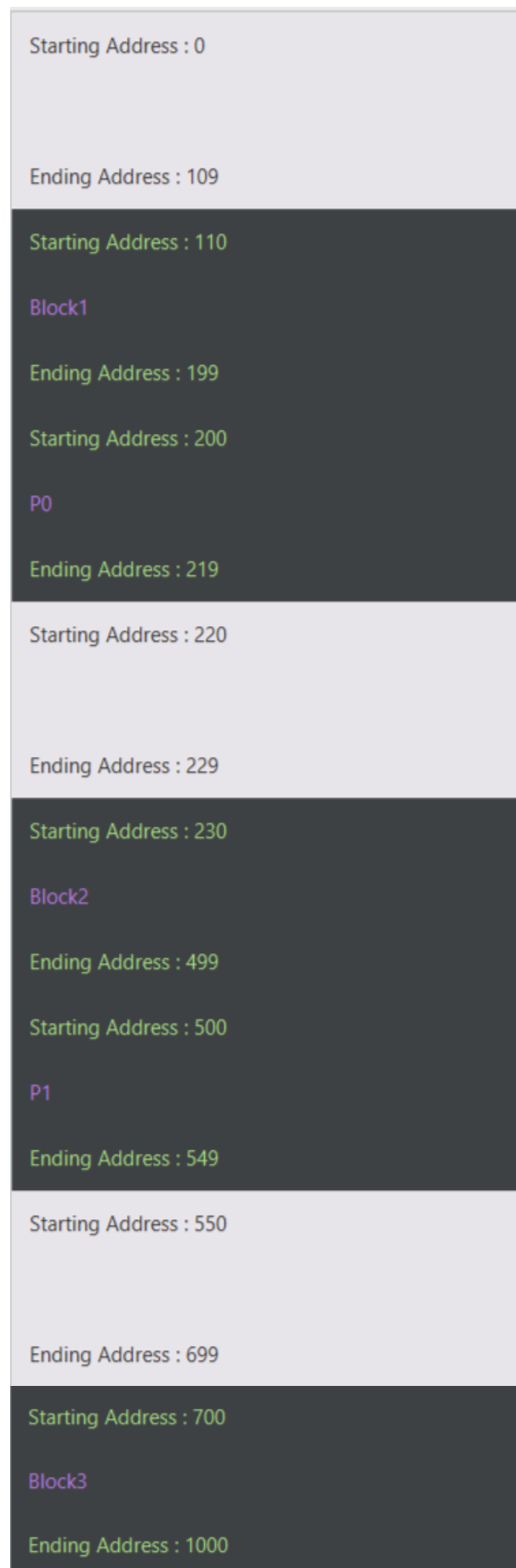
The memory before allocate any process



the memory after allocate P0



After allocate **P0 & P1**



After Deallocate **Block0**

## 2- Best Fit

### Allocation Method

☐ FirstFit

☒ BestFit

Memory Size

No. of Holes

No. of Processes

|   | Hole Starting Address            | Hole Size                        |
|---|----------------------------------|----------------------------------|
| 1 | <input type="text" value="100"/> | <input type="text" value="200"/> |
| 2 | <input type="text" value="500"/> | <input type="text" value="50"/>  |
| 3 | <input type="text" value="600"/> | <input type="text" value="20"/>  |

| Name | Process Size                     |
|------|----------------------------------|
| P0   | <input type="text" value="15"/>  |
| P1   | <input type="text" value="40"/>  |
| P2   | <input type="text" value="300"/> |

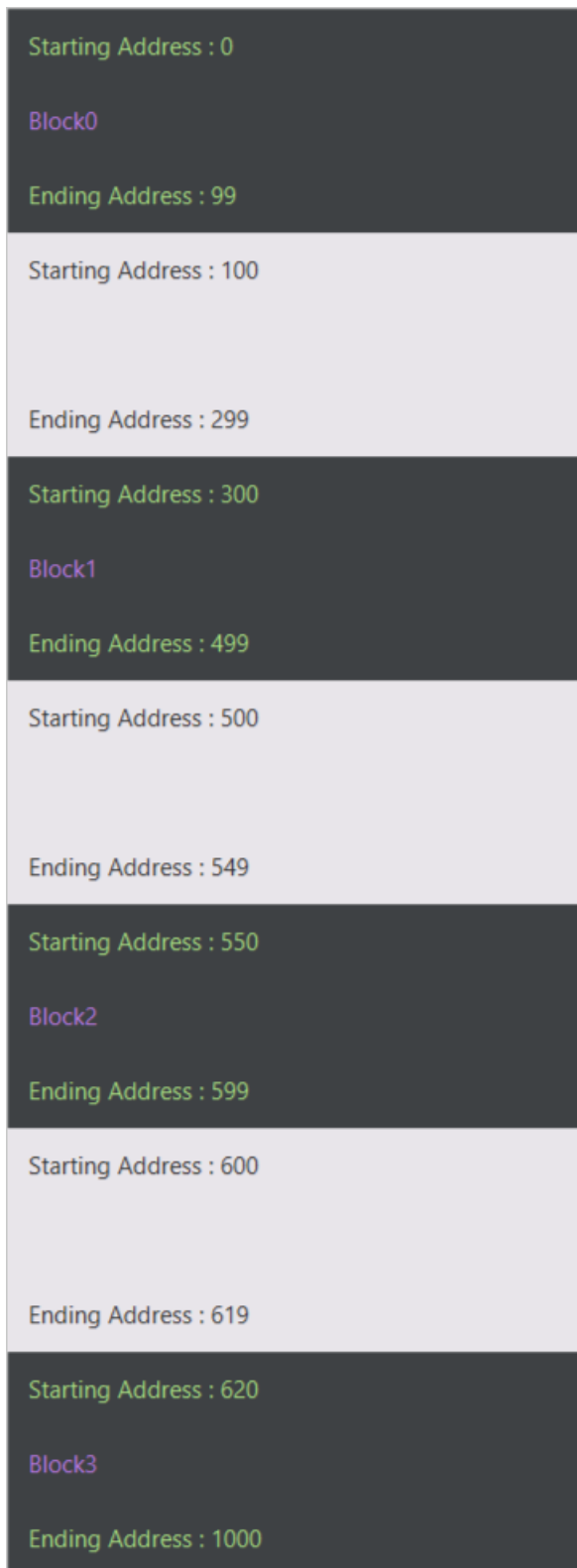
Save

Allocate Process ▼

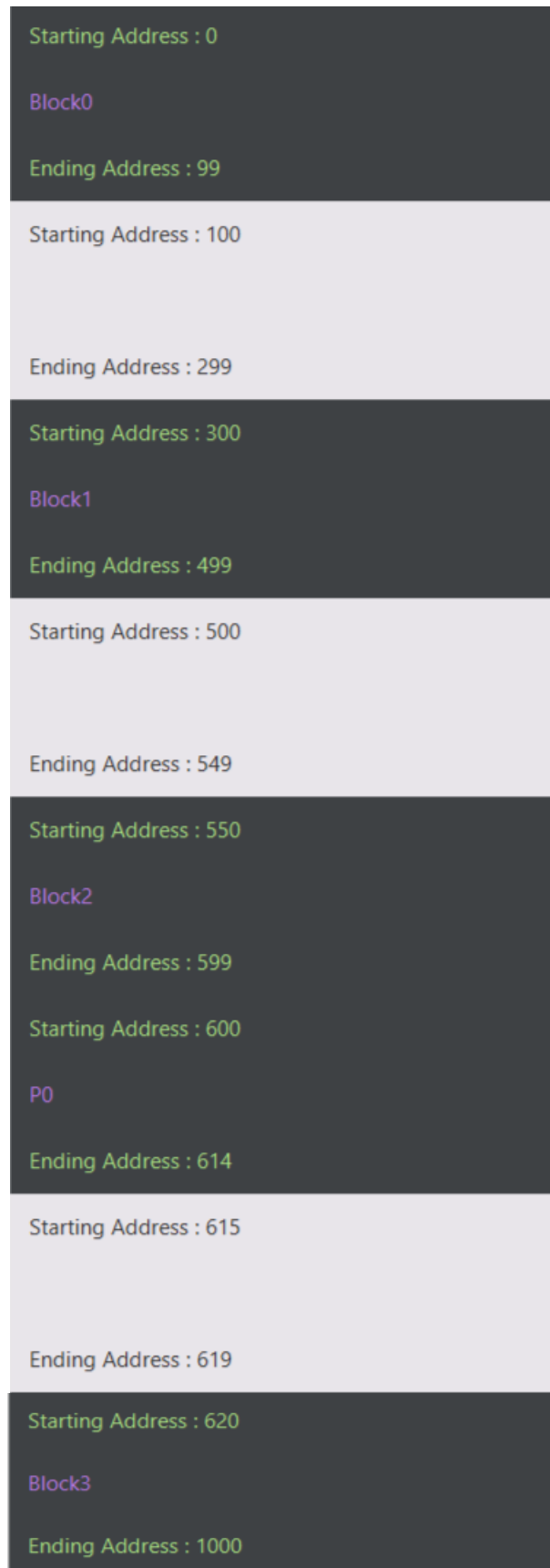
Allocate

DeAllocate Process ▼

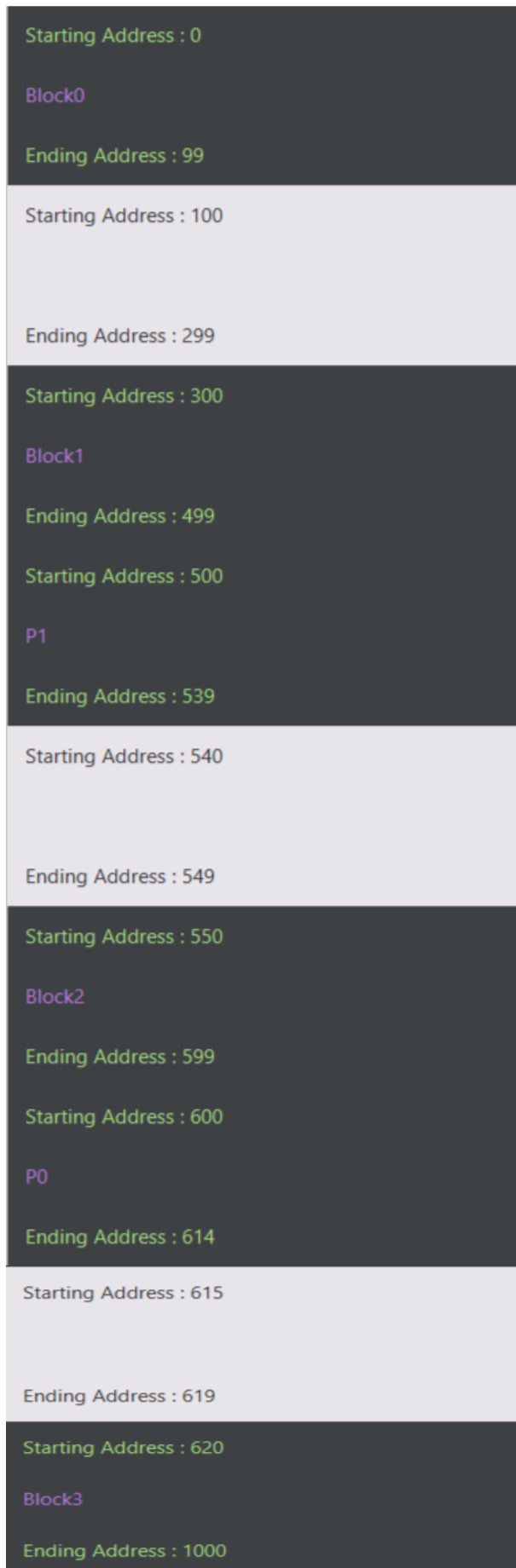
DeAllocate



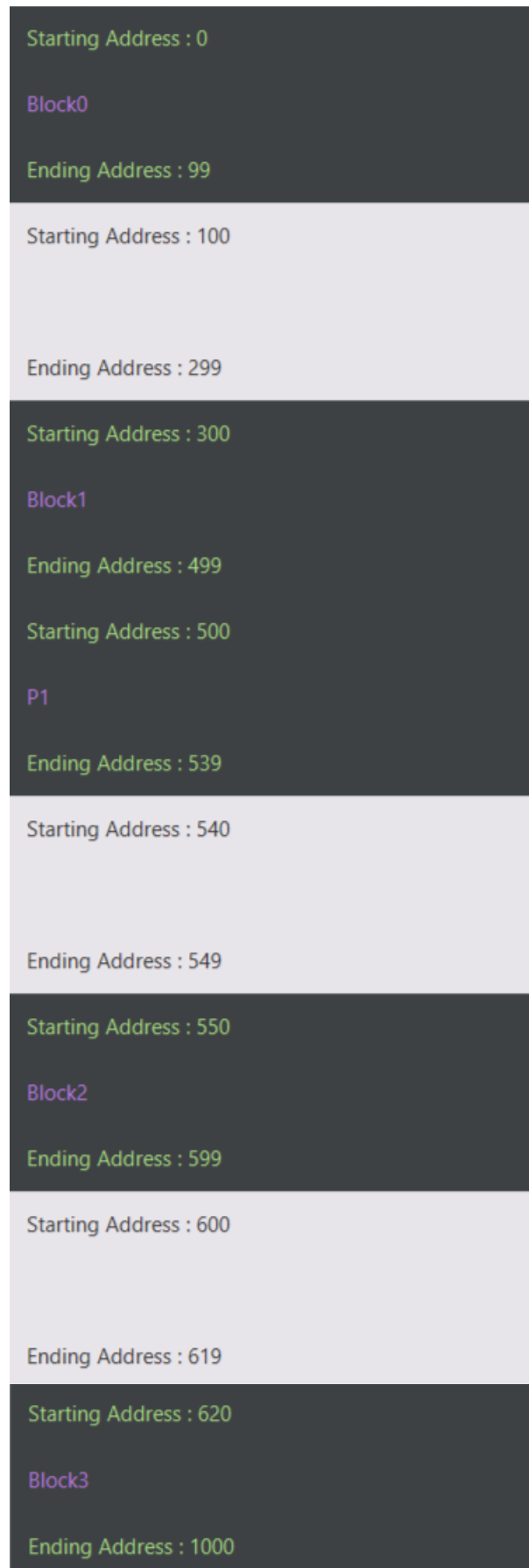
**memory before allocate  
any process**



**memory after allocate P0**



**After allocate P0 & P1**



**After Deallocate P0**



**If we allocate P2 which has no space to be allocated**

**Error message will appear**

