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Segmentation

It is non-contiguous memory allocation technique.

Paging drawback

Page 0	1KB
Page 1	1KB
Page 2	1KB
Page 3	1KB

Program X
= 4KB

	1KB
Page 1	1KB
	1KB
Page 2	1KB
	1KB
	1KB
	1KB

Main Memory

↓

Segmentation

Two codes cost & area.

30	Segment (cost)	30KB
31	Segment (area)	5KB
36		

unequal size segments are made in secondary memory & then loaded into main memory

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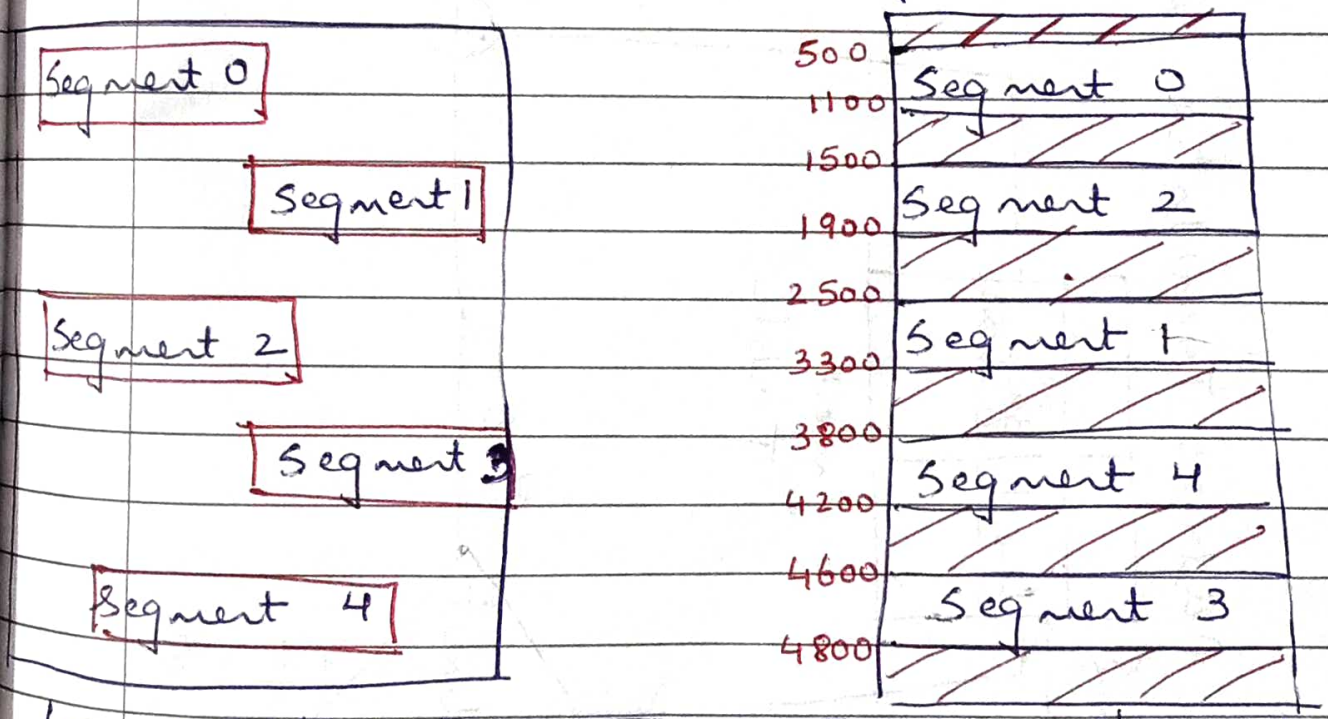
Definition of Segmentation :-
It is a memory management technique in which the memory is divided into unequal size parts. Each part is known as segment which can allocated to a process.

Logical View of Segmentation

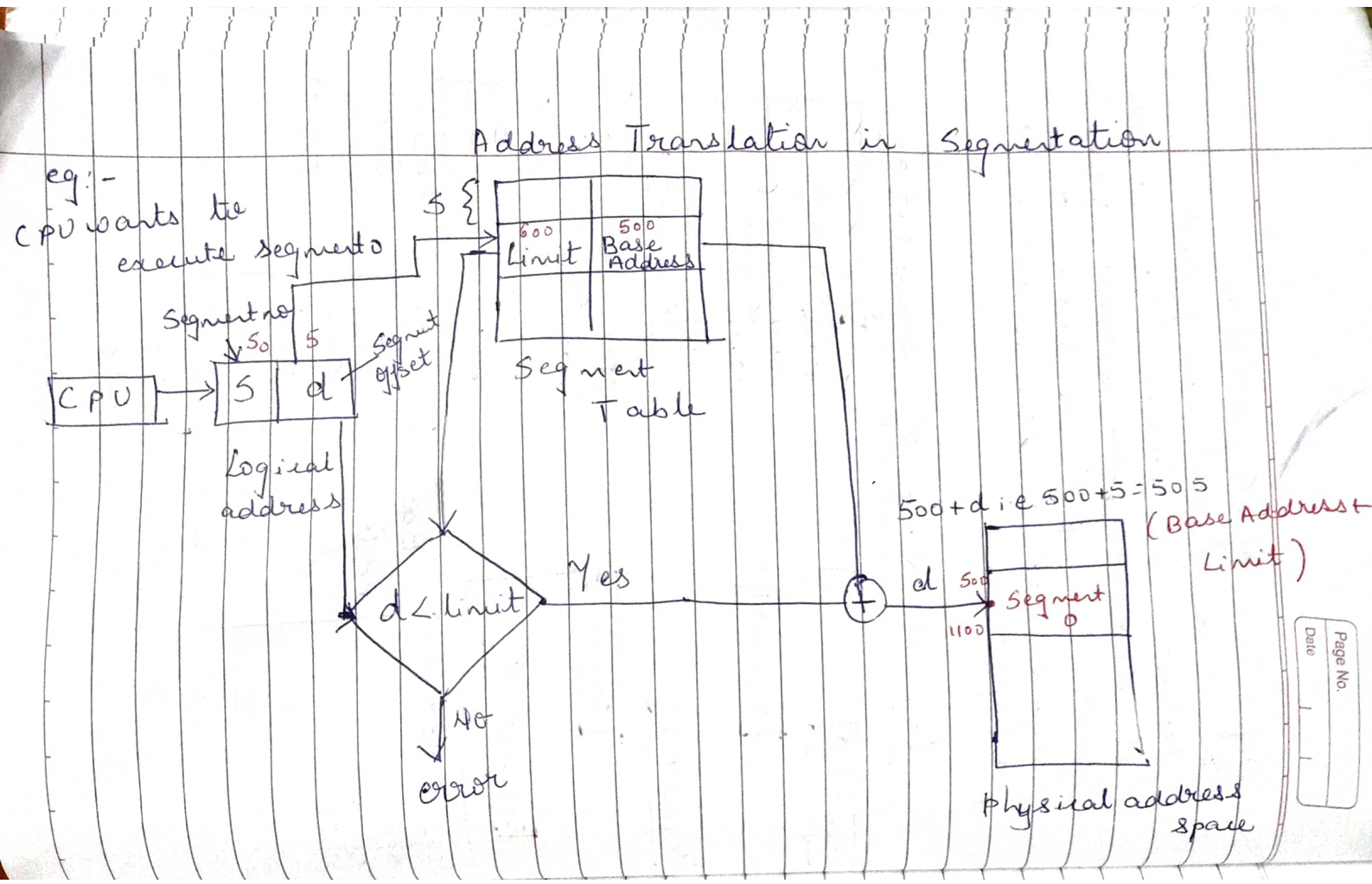


Logical Address Space (S.C)	Base Address	Limit
0	500	600
1	2500	800
2	1500	400
3	4600	200
4	3800	400

Physical address space (M.M)

Segment Table

Address Translation in Segmentation



There is no simple relationship between logical & physical address in segmentation

Table that stores information about all segments is called segment Table

Segment Table consists of

Base Address

starting physical address where the segment reside in memory

Limit

Length of segment