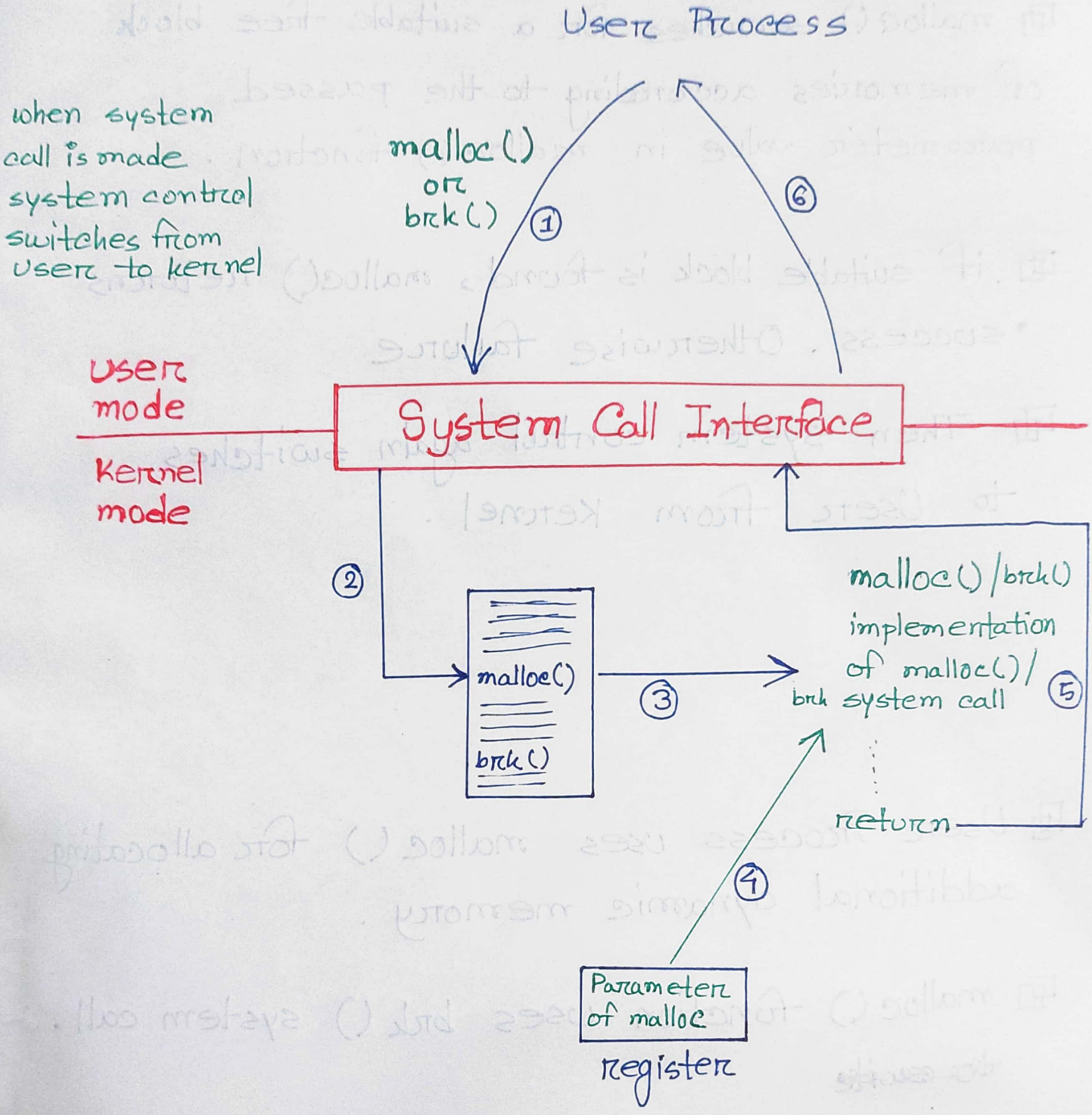

User Process
when system call is made system control switches from user to kernel
malloc() or brk()
1
6
User mode
Kernel mode
System Call Interface
2
malloc()
brk()
3
malloc()/brk() implementation of malloc()/brk system call
5
return
4
Parameter of malloc
register

- User Process uses malloc() for allocating additional dynamic memory.

- malloc() function uses brk() system call.

- When system call happens, system control will be switched from user mode to kernel mode. Because kernel mode is the privilaged one which only can access hardware like memory, I/O devices.

- Then in kernel mode, OS finds brk/malloc Application program.

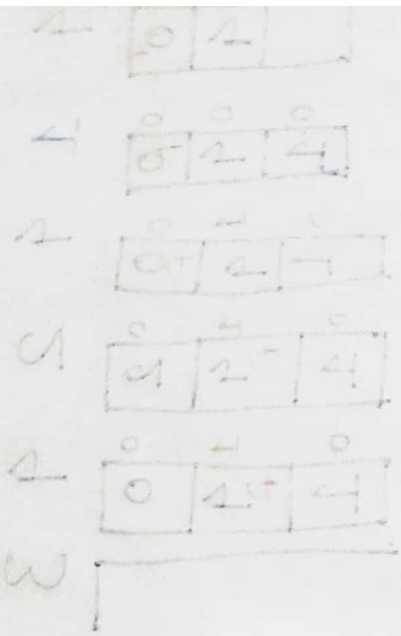
- malloc() internally uses brk() system call

- internally, malloc() manages a pool of memory obtained from the OS using system calls like brk()

- malloc() searches for a suitable free block of memories according to the passed parameter value in malloc() function.

- if suitable block is found, malloc() returns success. Otherwise failure

- Then system control again switches to User from Kernel.



Second Chance / Clock Page Replacement Algo

● 1 → gets a second chance to be replaced.