

→\*Swati Mall\*←  
→\*Computer Science & Engineering\*←  
→\*II Semester\*←

→\*Pointer Arithmetic :←

There are only two arithmetic operations that you can use on pointers: "addition and subtraction".

\*To understand what occurs in pointer arithmetic, let  $p_1$  be an integer pointer with a current value of 2000. Also, assume ints are 2 bytes long. After expression,

$p_1++;$

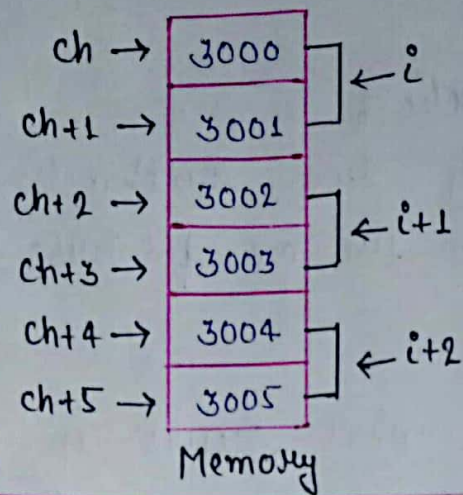
$p_1$  contains 2002, not 2001. The reason for this is that each time  $p_1$  is incremented, it will point to the next integer.

\* If  $p_1$  has the value of 2000, the expression,

$p_1--;$

causes  $p_1$  to have the value 1998.

```
char *ch = (char*)3000;  
int *i = (int*)3000;
```



All pointer arithmetic is relative to its base type  
(assume 2-byte integers)

→\*← Some Rules and Restriction in use of Pointer :

1. You can ~~add~~ subtract one pointer from another.
2. You cannot multiply or divide pointers.
3. You cannot add two pointers.
4. You cannot apply the bitwise operators to them.
5. You cannot add or subtract type 'float' and 'double' to or from pointers.