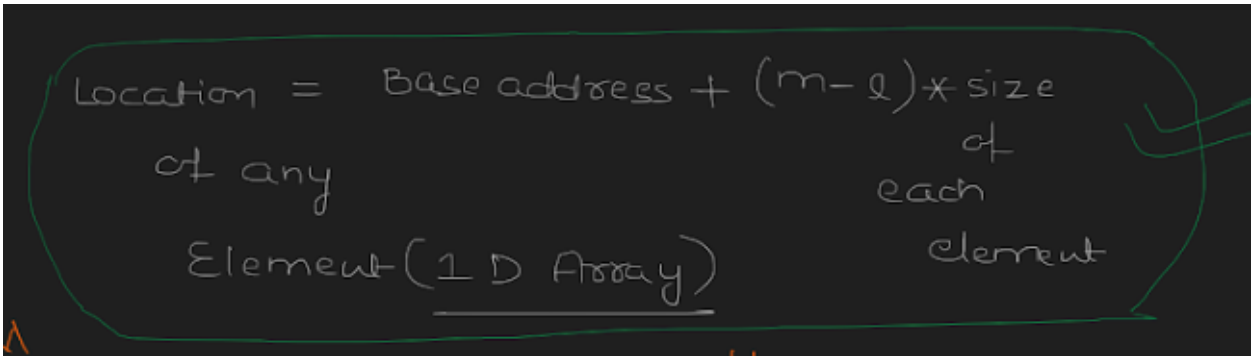
06_Array_Location of Memory

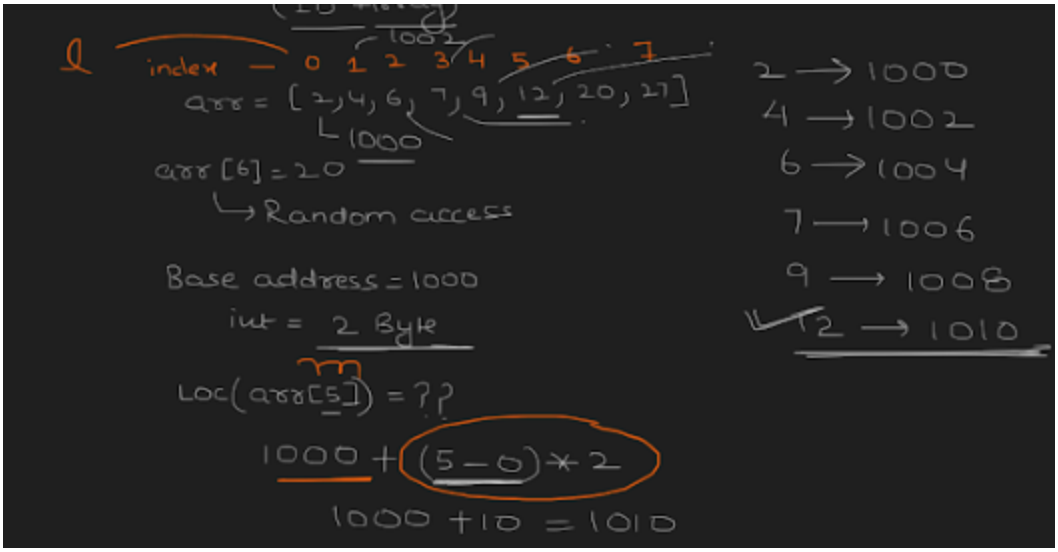
1. Collection of data of same type in contiguous memory.
2. Random Access(Access any element with O(1))

Location of Memory:

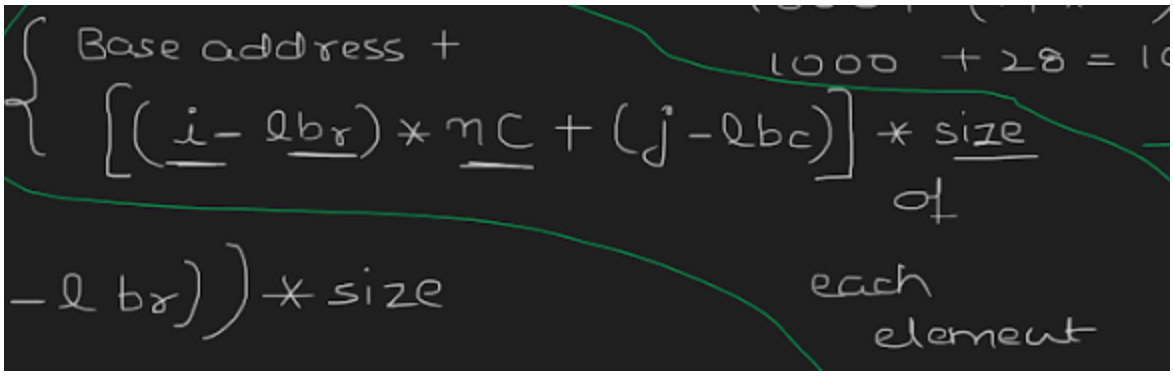
1) 1D Array



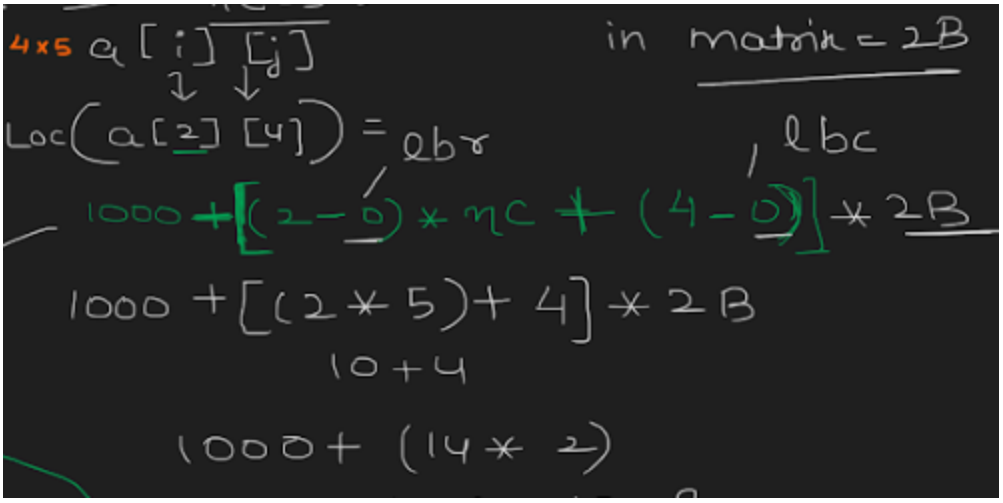
eg)



2) 2D Array:


Base address +
[(i - lbr) * nC + (j - lbc)] * size
of
each
element

eg)


4x5 a[i] [j]
in matrix = 2B
Loc(a[2] [4]) = lbr, lbc
1000 + [(2 - 0) * nC + (4 - 0)] * 2B
1000 + [(2 * 5) + 4] * 2B
10 + 4
1000 + (14 * 2)