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**Day 12 – 25th June 2025**

**HOME TASKS:**

**Do hash table have linked list internally?**

**Ans:** Yes, HashMap (or hash table in java) does use a Linked List internally -but only in specific cases

**Do collisions occur in hash Maps? What are they?**

**Ans:** Yes, Collision do occurs in HashMaps , and they are a key part of how hash – based data structures work.

Collision: two or more different keys map to the same bucket (value).

**What is load factor and how the capacity increases?**

**Ans:**Load factor =(number of elements)/(capacity)

It’s calculated as the ration of the number of elements (key- value pairs) to the capacity(number of buckets or slots)

When the load factor exceeds a certain threshold(usually around 0.7 or 0.8) ,the data structure needs to increase its capacity to maintain efficient performance .This process is called resizing or rehashing