--- A Hash map, also known as Hash table is one type of data structure which maps the keys to value pairs.

--- Hash maps are used for fast Insertion , Deletion , it has the high Storage Capacity that it can store the large datasets with high number of items

--- It works by calculating an index value with a function, and then storing the elements to be searched, removed, inserted This simplifies and accelerates data access. Key-value pairs are stored in hash tables, with the key generated using a hash Function

--- **Applications** :

● These have applications in implementations of Cache where memory locations are mapped to small sets.

● They are used to index tuples in Database management systems.

● They are also used in algorithms like the Rabin Karp pattern matching