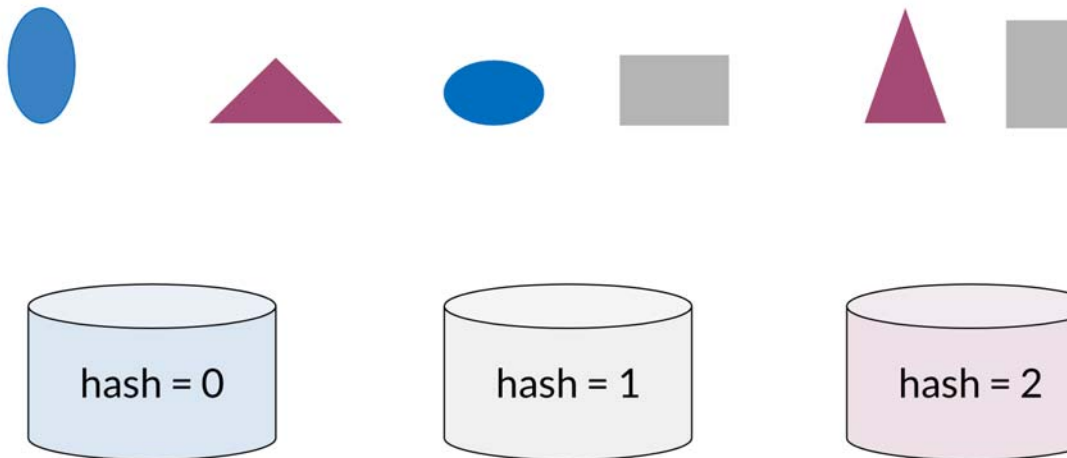
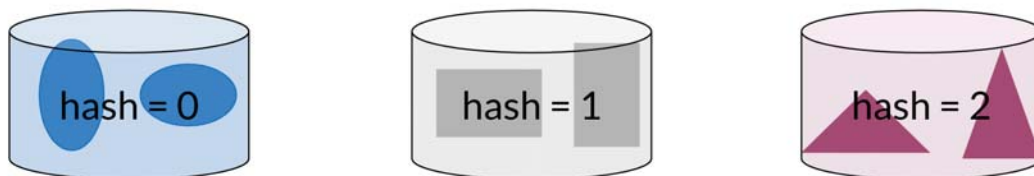


# Hash tables and hash functions

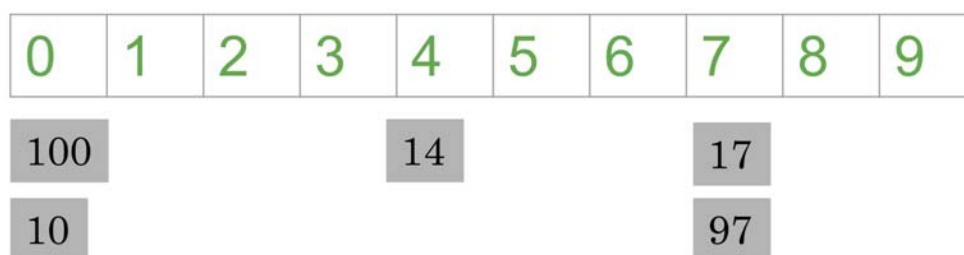
Imagine you had to cluster the following figures into different buckets:



Note that the figures blue, red, and gray ones would each be clustered with each other



You can think of hash function as a function that takes data of arbitrary sizes and maps it to a fixed value. The values returned are known as *hash values* or even *hashes*.



Hash function (vector) → Hash value