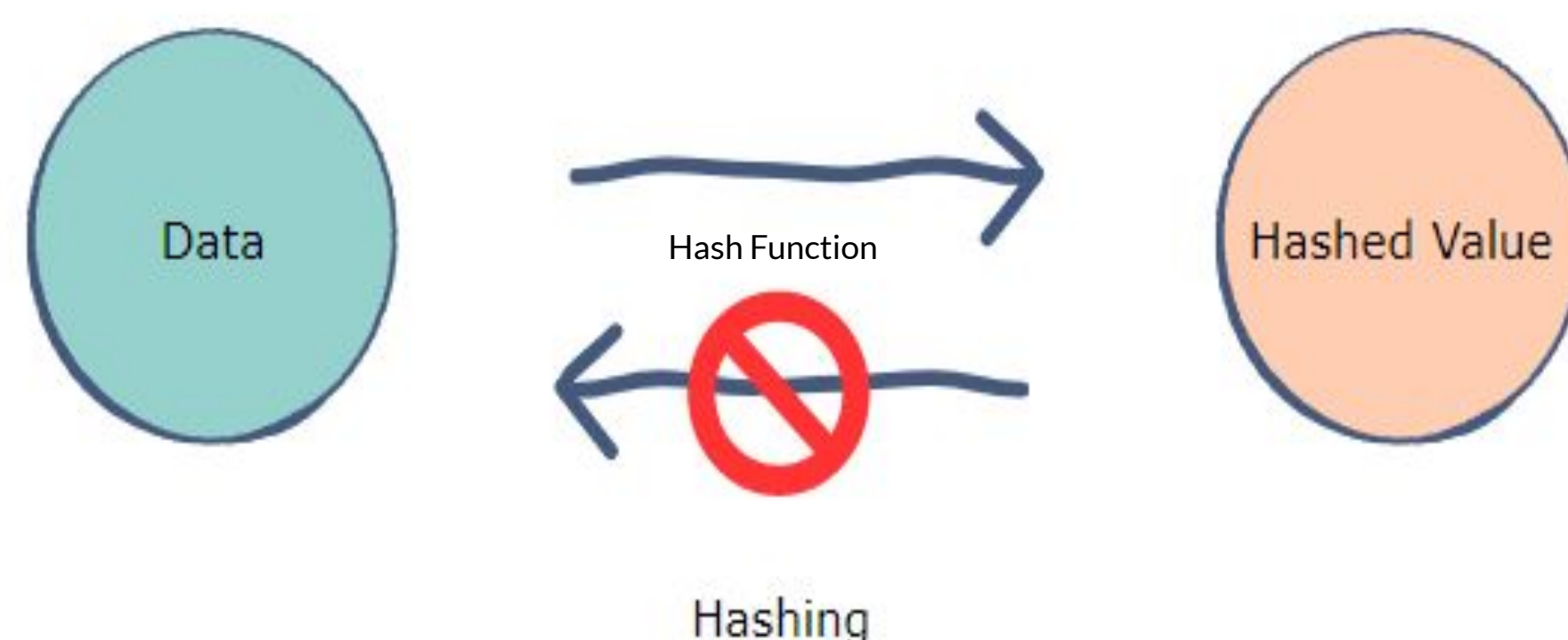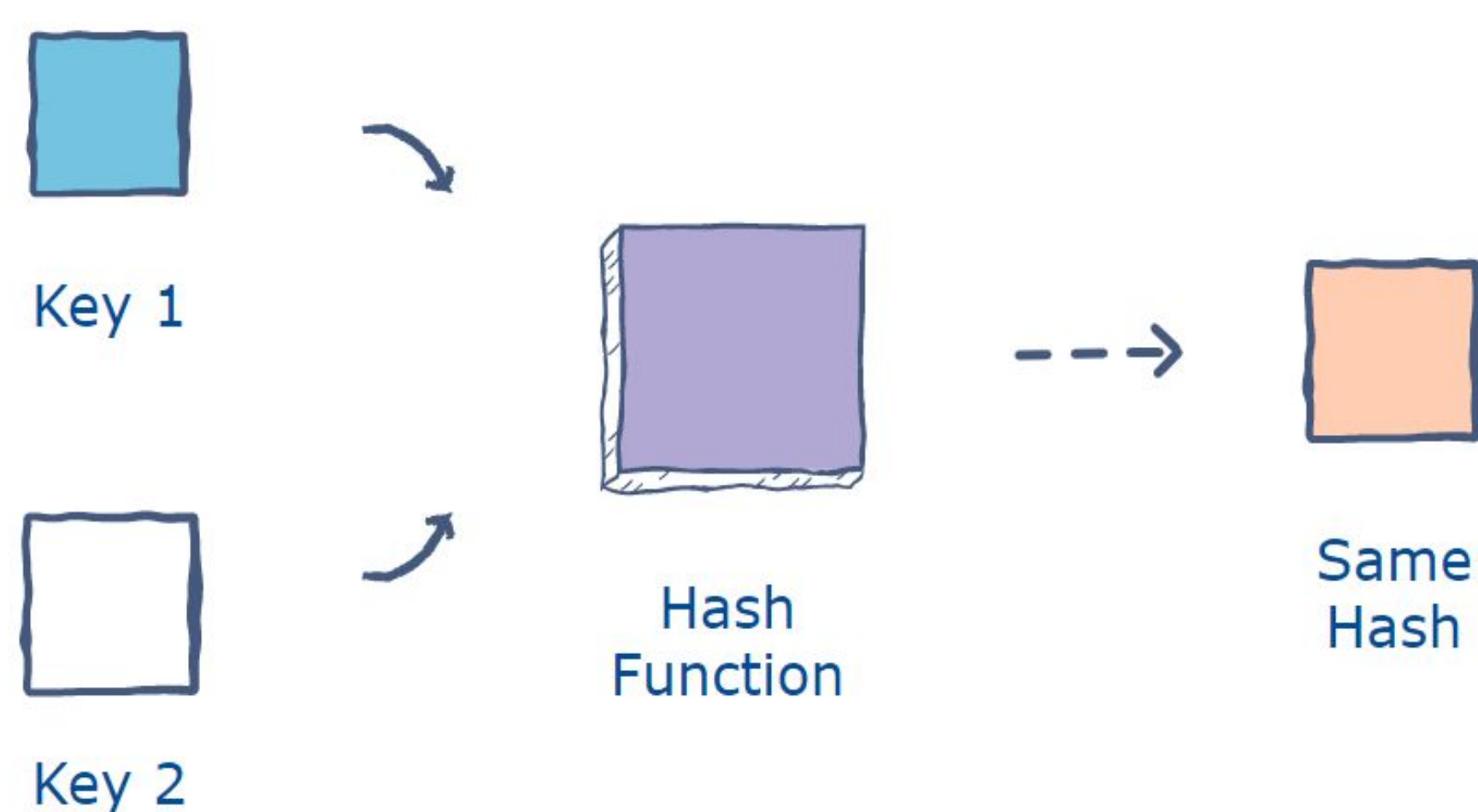# What is Hashing?

Hashing is the process of converting a given key into another value. A **hash function** is used to generate the new value according to a mathematical algorithm. The result of a hash function is known as a **hash value** or simply, a **hash**.

Hashing is an important Data Structure which is designed to use a special function called the Hash function. A good hash function uses a **one-way** hashing algorithm, or in other words, the hash cannot be converted back into the original key. This means there is no risk if a hacker gets a hold of your password's hash.

Collisions

Keep in mind that two keys can generate the same hash. This phenomenon is known as a **collision**. There are several ways to handle collisions, but that's a topic for another time.

Applications

Hashing is most commonly used to implement *hash tables*.

Hashing is generally done based on the numerical properties of the input.

Modern applications use a technique called **password hashing**, so they never have to store your password.

A hash changes if the input changes; therefore, hashing is used for authentication purposes by ensuring no changes have been made to a file.It is usually easier to compare hashes when checking for changes than to check for them in the actual files.

References
https://www.geeksforgeeks.org/hashing-data-structure/
https://www.educative.io/edpresso/what-is-hashing

TAE Assesment Sheet for FY Btech					
SR.NO	ROLL NO	DIVISION	NAME OF THE STUDENT	TAE NO	POSTER/PRESENTATION
1	A71	A	Pratik Rajesh Jade	1	Poster
Rubrics For Assesement					
CATEGORY	Contents	Presentation	Spelling and pronunciation	Oral Presentation	TOTAL
MARKS	2	1	1	1	5
			Teacher sign (With name and date)		