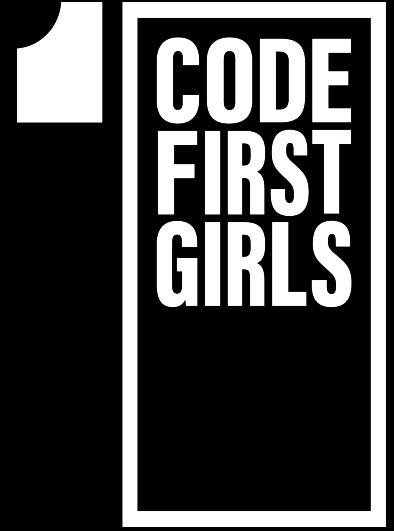


HASH TABLES & HASHING

LESSON 10



NANODEGREE → ENGINEERING MODULE

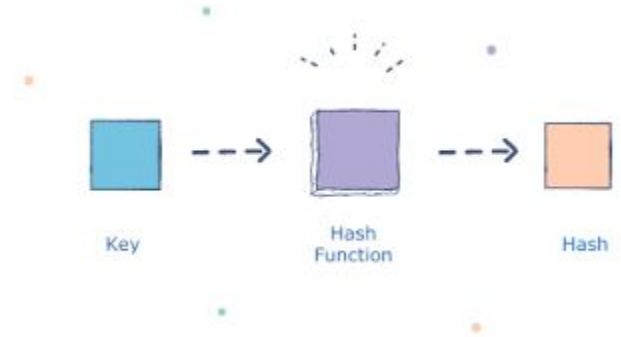
AGENDA



- 01 Hashing concept explained
- 02 Hashing method in Python explained
- 03 Practice and coding

HASHING

Let's watch a DEMO to understand the concepts of HASHING



HASHING REFERENCE

- A **hash table** (dictionary in Python) organizes data so you can quickly look up values for a given key.
- Think of a hashmap as a "hack" on top of an array to let us use flexible keys instead of being stuck with sequential integer "indices."
- **Hashing function** - is a function to convert a key into an array index(an integer).
- **Hash collision** - a situation where two keys hash to the same index in the array
- **Dealing with collision** - instead of storing the actual values in the array, make each array slot to hold a *pointer to a linked list* (box) holding the values for all the keys that hash to that index.

SYNONYMS

- Hash
- Hashmap
- Map
- Unordered map
Dictionary

HASH METHOD IN PYTHON

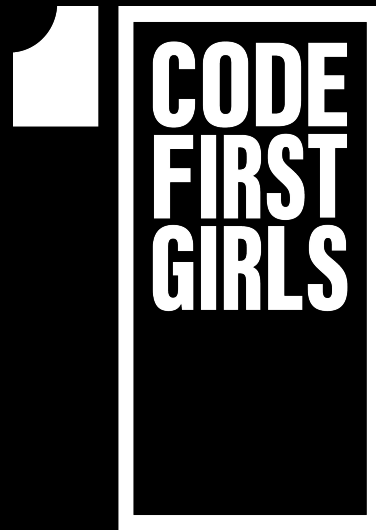
Let's watch a DEMO to understand the concepts of HASH METHOD





**DEMO &
EXERCISES**

QUEUE & STACK IMPLEMENTATION EXERCISES & PRACTICE



THANK YOU!