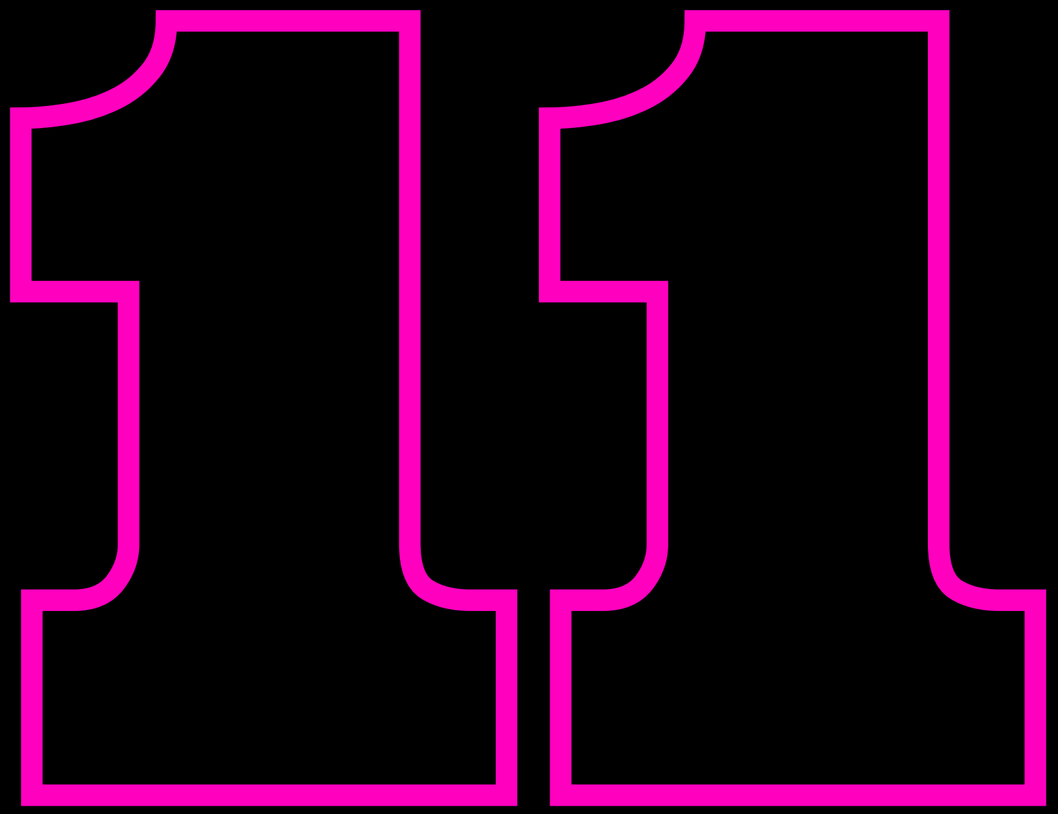
DAY



keep calm,
wear mask&,
and study hard

Yesterday, we discussed about lists

TUPLES

what is the difference between the two?

lists vs tuples

lists are mutable
tuples are immutable

what is a tuple?

tuples also represent a collection of unchangeable items

```
thistuple = ("apple",)
print(type(thistuple))

#NOT a tuple
thistuple = ("apple")
```

tuple methods

.count()

.index()

len()

max()

min()

unpacking a tuple

```
fruits = ("apple", "banana", "cherry")

(green, yellow, red) = fruits

print(green)
print(yellow)
print(red)
```

how can we change something inside a tuple?

convert tuple to list first

```
x = ("apple", "banana", "cherry")
y = list(x)
y[1] = "kiwi"
x = tuple(y)
print(x)
```

how to iterate over the tuple or list in a better way

for loop in
python is special
and powerful

we will use for loop

for loop can be used with any iterable

Demo Examples

BREAK & CONTINUE

use of break & continue

they are used to control the
flow of program
and change execution order

continue

this is used to skip the current iteration of the loop.

break

this is used to exit out of the current loop being executed.

Some practice Questions

string indexing and slicing

Dictionaries in Python

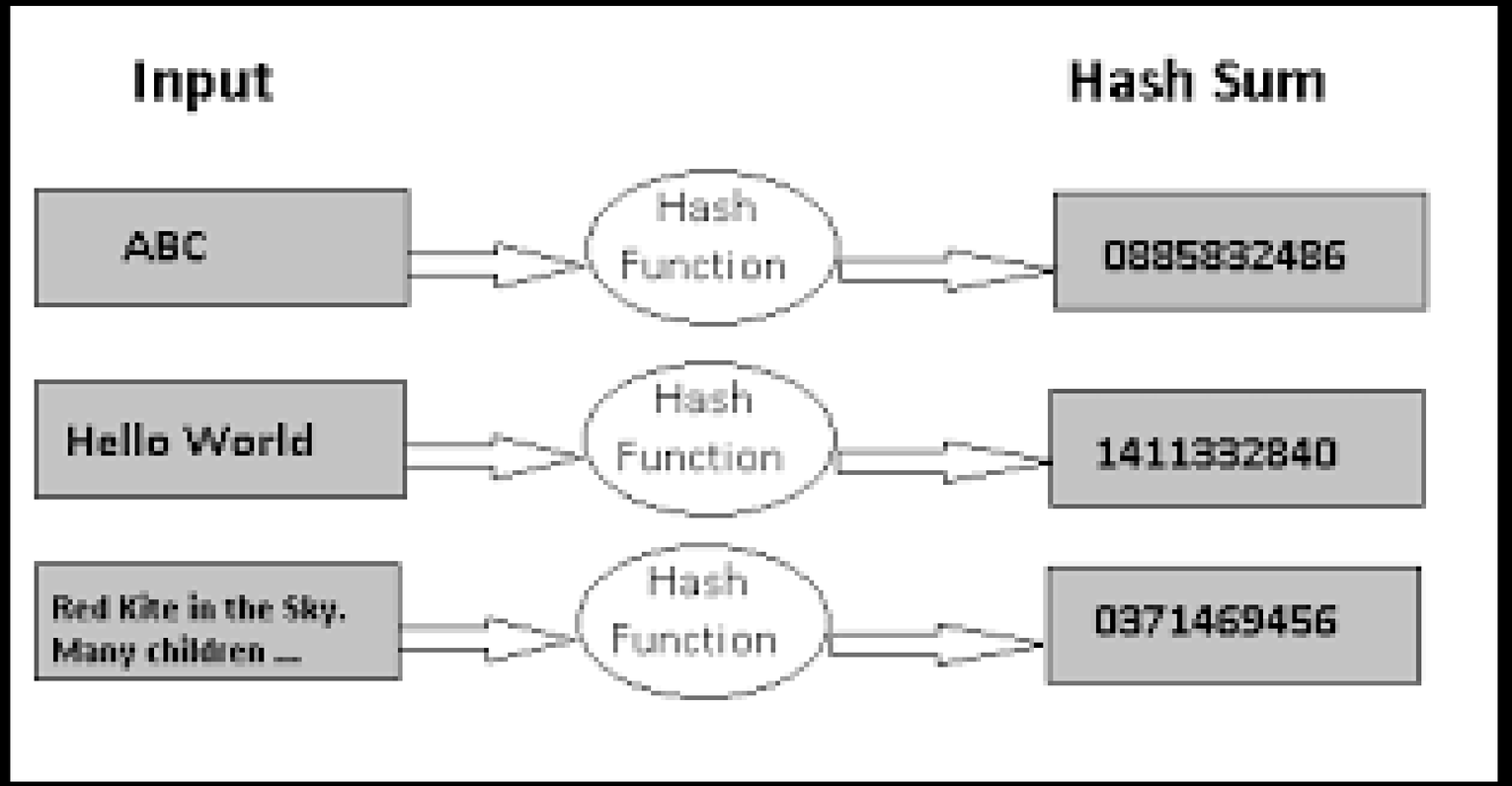
They are implementations of hashtable in Python.

What is a hashtable?

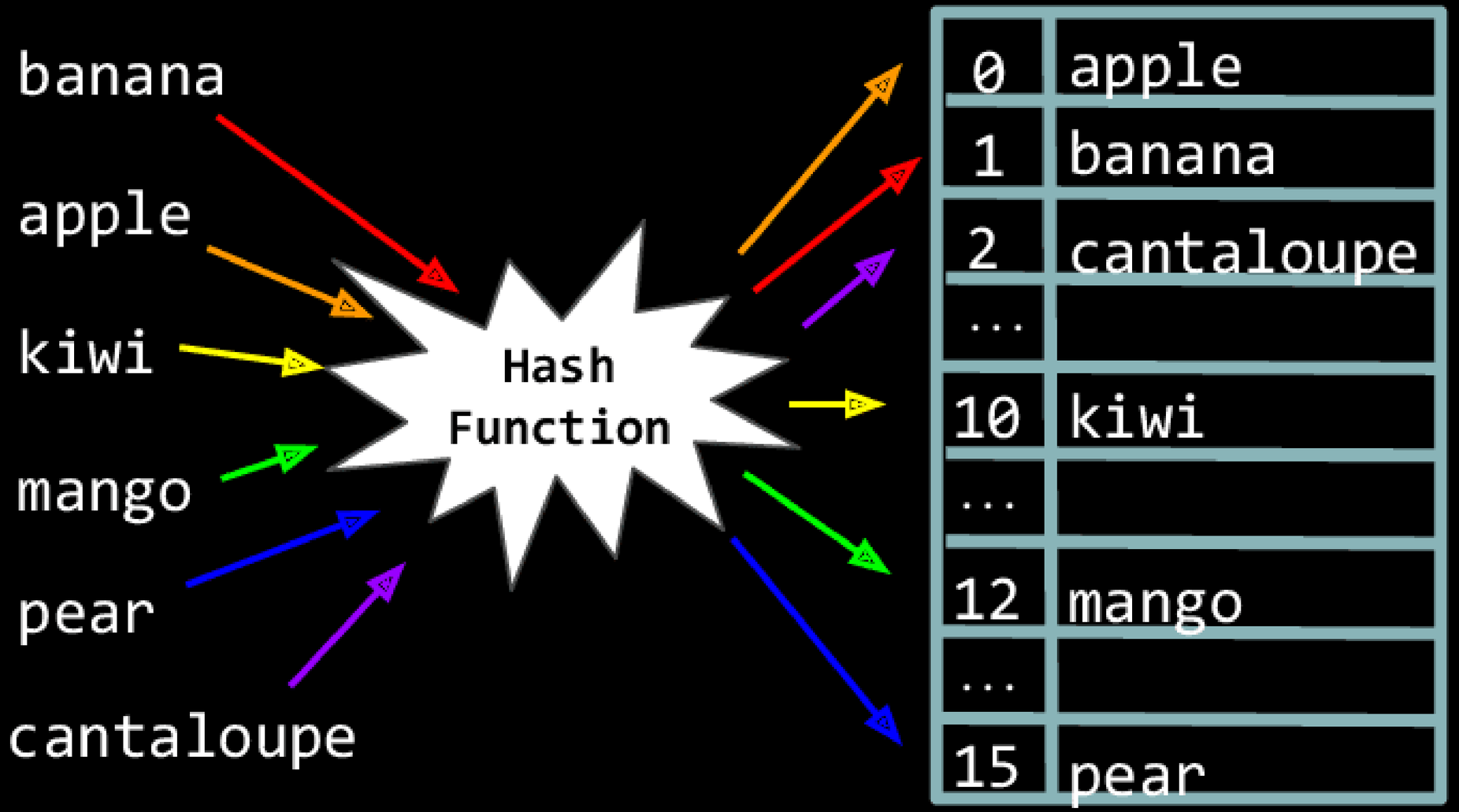
Hash Tables

They are a data-structure representing **key-value** pairs

hash function and hash value



Hash Tables


banana
apple
kiwi
mango
pear
cantaloupe
Hash Function
0 apple
1 banana
2 cantaloupe
...
10 kiwi
...
12 mango
...
15 pear

```
# hash for integer unchanged
print('Hash for 181 is:', hash(181))

# hash for decimal
print('Hash for 181.23 is:',hash(181.23))

# hash for string
print('Hash for Python is:', hash('Python'))
```

Demo Examples


THANK
YOU