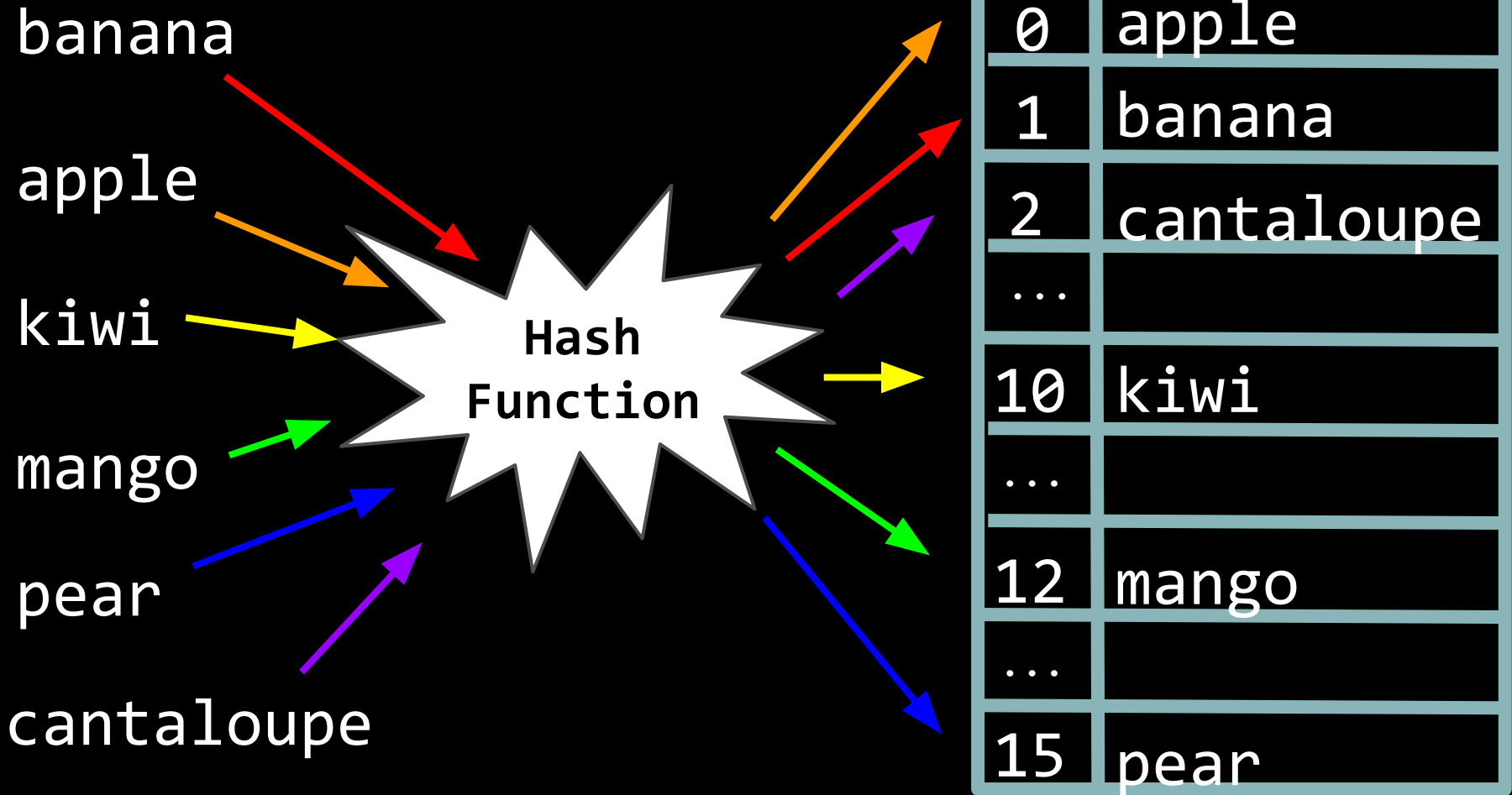
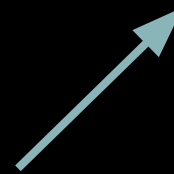
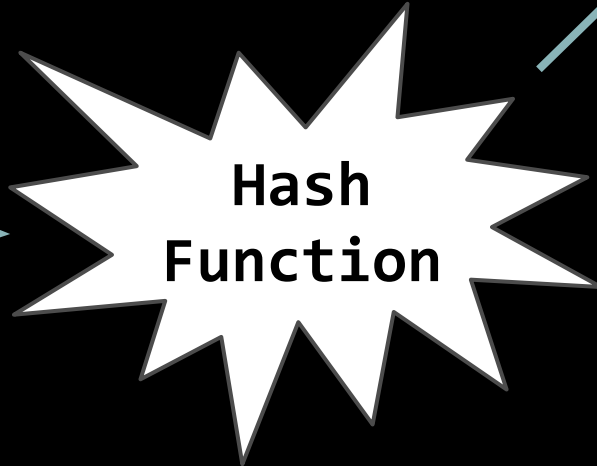


# Hash Tables



# Hash Function

banana



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

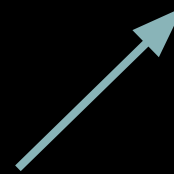
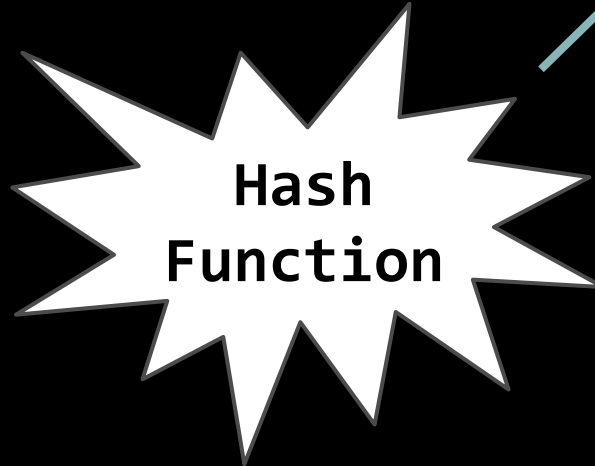
# Hash Function Example

```
int hash_function(char* key)
{
    // hash on first letter of string
    int hash = toupper(key[0]) - 'A';

    return hash % SIZE;
}
```

# Collisions

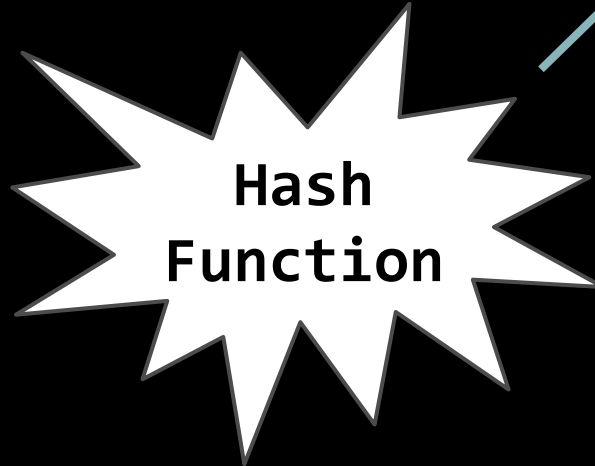
berry



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

# Linear Probing

berry



0	apple
1	banana
2	cantaloupe
3	berry
...	
10	kiwi
...	
12	mango
...	
15	pear

# Separate Chaining

