

Learn Go: Maps

Go Map Creation

In Go, an empty map can be created using `make`. The type of keys and values are specified.

```
variableName :=  
make(map[keyType]valueType)
```

Go Map Initialization

In Go, a map can be initialized with `key:value` data.

```
variableName :=  
map[keyType]valueType{  
    key1, value1,  
    key2, value2,  
    key3, value3,  
}
```

Go Map Access

In Go, any value can be accessed by specifying the associated key. A second value can be returned to check if the key is in the map.

```
value := yourMap[key]  
checkedValue, isFound :=  
yourMap[key]
```

Go Adding to a Map

In Go, additional key:value pairs can be added to the map by specifying the new key and its value.

```
yourMap[newKey] = newValue
```

Go Updating a Map

In Go, existing values can be updated by specifying a key and an updated value.

```
yourMap[existingKey] =  
newValue
```

Go Map Deletions

In Go, key:value pairs can be removed with the delete syntax where a map and key are specified.

```
delete(yourMap,  
keyValueToDelete)
```

Go Maps

In Go, a map is an unordered collection of key:value pairs. Keys are used as a way to access a value. Maps are used to associate one piece of data with another.

Example use cases include:

- Counting the number of times unique names appear in a list.
- Mapping simple identifiers, such as an employee id, to related values.
- Anytime we need to associate any piece of data with another!