**Declare map:**

func main() {

var phone\_dict map [string] int64

fmt.Println(phone\_dict) // map[ ]

}

**Initialize map:**

phone\_dict1 := map [string] int64{}

fmt.Println(phone\_dict1) // map[]

phone\_dict2 := map [string] int64{

"Rahul" : 9876543201,

"Swati" : 9123456789,

}

phone\_dict2["aayush"] = 9823165748

fmt.Println(phone\_dict2) // map[Rahul:9876543201 Swati:9123456789 aayush:9823165748]

phone\_dict3 := make(map [string] int64)

phone\_dict3["Rahul"] = 9876543201

phone\_dict3["Swati"] = 9123456789

fmt.Println(phone\_dict3) // map[Rahul:9876543201 Swati:9123456789]

package main

import "fmt"

func main() {

phone\_dict1 := map [string] int64{}

phone\_dict1["Rahul"] = 9876543201

fmt.Println(phone\_dict1)

phone\_dict2 := map [string] int64{

"Rahul": 9876543201,

"Swati": 9123456789,

}

phone\_dict2["aayush"] = 9823165748

fmt.Println(phone\_dict2["Swati"])

phone\_dict3 := make(map [string] int64)

fmt.Println(phone\_dict3) // map[ ]

phone\_dict3["Rahul"] = 9876543201

phone\_dict3["Swati"] = 9123456789

fmt.Println(phone\_dict3)

fmt.Println(phone\_dict3["aayush"])

}

**Length of map:**

func main() {

phone\_dict3 := make(map [string] int64)

phone\_dict3["Rahul"] = 9876543201

phone\_dict3["Swati"] = 9123456789

fmt.Println(phone\_dict3)

fmt.Println("length of phone\_dict3:", len(phone\_dict3))

}

**Check for keys:**

package main

import ("fmt"

"reflect"

)

func main() {

phone\_dict3 := make(map [string] int64)

phone\_dict3["Rahul"] = 9876543201

phone\_dict3["Swati"] = 9123456789

mapkeys := reflect.ValueOf(phone\_dict3).MapKeys()

fmt.Println("Keys of phone\_dict3", mapkeys)

val, ok := phone\_dict3["Swati"]

fmt.Println(ok, val)

val, ok = phone\_dict3["Suman"]

fmt.Println(ok, val)

}

**Iteration over map:**

package main

import ("fmt"

"sort"

)

func main() {

phone\_dict3 := make(map [string] int64)

phone\_dict3["Rahul"] = 9876543201

phone\_dict3["Swati"] = 9123456789

phone\_dict3["Suman"] = 9675463768

phone\_dict3["Mayank"] = 9342516789

phone\_dict3["Deepak"] = 8765453678

var mapkeys [] string

for itr := range(phone\_dict3){

fmt.Println(itr)

mapkeys = append(mapkeys, itr)

}

sort.Strings(mapkeys)

for \_, k := range mapkeys {

fmt.Println("Key:", k, "Value:", phone\_dict3[k])

}

}

**Delete element from map:**

func main() {

phone\_dict3 := make(map [string] int64)

phone\_dict3["Rahul"] = 9876543201

phone\_dict3["Swati"] = 9123456789

phone\_dict3["Suman"] = 9675463768

phone\_dict3["Mayank"] = 9342516789

phone\_dict3["Deepak"] = 8765453678

fmt.Println("Before deleting a key:", phone\_dict3)

delete(phone\_dict3, "Suman")

fmt.Println("After deleting a key:", phone\_dict3)

}

**Comparison of maps:**

package main

import ("fmt"

"reflect"

)

func main() {

phone\_dict := make(map [string] int64)

phone\_dict["Rahul"] = 9876543201

phone\_dict["Swati"] = 9123456789

phone\_dict1 := make(map [string] int64)

phone\_dict1["Rahul"] = 9876543201

phone\_dict1["Swati"] = 9123456789

fmt.Println(phone\_dict==nil)

fmt.Println(reflect.DeepEqual(phone\_dict, phone\_dict1))

phone\_dict1["Swati"] = 1987654321

fmt.Println(reflect.DeepEqual(phone\_dict, phone\_dict1))

}

**Map as reference type:**

func main() {

phone\_dict := make(map [string] int64)

phone\_dict["Rahul"] = 9876543201

phone\_dict["Swati"] = 9123456789

phone\_dict["Suman"] = 9675463768

phone\_dict["Mayank"] = 9342516789

phone\_dict["Deepak"] = 8765453678

fmt.Println(phone\_dict["Mayank"])

phone\_dict1 := phone\_dict

phone\_dict1["Mayank"] = 1234567890

fmt.Println(phone\_dict["Mayank"])

}

package main

import "fmt"

func change\_value(phone\_dict1 map[string]int64){

phone\_dict1["Mayank"] = 1234567890

}

func main() {

phone\_dict := make(map [string] int64)

phone\_dict["Rahul"] = 9876543201

phone\_dict["Swati"] = 9123456789

phone\_dict["Suman"] = 9675463768

phone\_dict["Mayank"] = 9342516789

phone\_dict["Deepak"] = 8765453678

fmt.Println("Before calling function, value of key 'Mayank' is:", phone\_dict["Mayank"])

change\_value(phone\_dict)

fmt.Println("After calling function, value of key 'Mayank' is:", phone\_dict["Mayank"])

}