**Swift Dictionary**

Swift dictionary is an unordered collection of items. It stores elements in **key/value** pairs. Here, **keys** are unique identifiers that are associated with each **value**.

Let's see an example.

If we want to store information about countries and their capitals, we can create a dictionary with country names as **keys** and capitals as **values**.

|  |  |
| --- | --- |
| **Keys** | **Values** |
| Nepal | Kathmandu |
| Italy | Rome |
| England | London |

## Create a dictionary in Swift

Here's how we can create a dictionary in Swift.

var capitalCity = ["Nepal": "Kathmandu", "Italy": "Rome", "England": "London"]

## Create an Empty Dictionary

**var emptyDictionary = [Int: String]()**

## Add Elements to a Dictionary

We can add elements to a dictionary using the name of the dictionary with []. For example,

var capitalCity = ["Nepal": "Kathmandu", "England": "London"]

// ADD JAPAN to Dictionry

**capitalCity["Japan"] = "Tokyo"**

## Change Value of Dictionary

We can also use [] to change the value associated with a particular key. For example,

var studentID = [111: "Eric", 112: "Kyle", 113: "Butters"]

**studentID[112] = "Stan"**

**1. Access Keys Only**

We use the keys property to access all the keys from the dictionary. For Example,

**var cities = ["Nepal":"Kathmandu", "China":"Beijing", "Japan":"Tokyo"]**

**// cities.keys return all keys of cities**

**var countryName = Array(cities.keys)**

**print("Keys: ", countryName)**

**2. Access Values Only**

Similarly, we use the values property to access all the values from the dictionary. For Example,

**var cities = ["Nepal":"Kathmandu", "China":"Beijing", "Japan":"Tokyo"]**

**// cities.values return all values of cities**

**var countryName = Array(cities.values)**

**print("Values: ", countryName)**

## Remove an Element from a Dictionary

We use the removeValue() method to remove an element from the dictionary. For example,

**var studentID = [111: "Eric", 112: "Kyle", 113: "Butters"]**

**var removedValue = studentID.removeValue(forKey: 112)**

**print("Dictionary After removeValue(): ", studentID)**

**OUTPUT:**Initial Dictionary: [113: "Butters", 111: "Eric", 112: "Kyle"]

Dictionary After removeValue(): [111: "Eric", 113: "Butters"]

## Iterate Over a Dictionary

**var classification = ["Fruit": "Apple", "Vegetable": "Broccoli", "Beverage": "Milk"]**

**for (key,value) in classification {**

**print("\(key): \(value)")**

**}**