Enumerations: Use Case

```swift
var itemName: String // e.g. "Middlemarch"

var releaseYear: Int // e.g. 1871

var itemType: String // e.g. "Book" or "Movie" or "Music"


// but later...
itemType = "Quokka"
// or...
itemType = "https://developer.apple.com"
```

Enumerations: Use Case

```
var itemName: String // e.g. "Middlemarch"

var releaseYear: Int // e.g. 1871

var itemType: String // e.g. "Book" or "Movie" or "Music"


// but later...
itemType = "Quokka"
// or...
itemType = "http://pluralsight.com"
// or...
itemType = "Call me Ishmael..."
```

Enumerations: Use Case

```
var itemName: String // e.g. "Middlemarch"
var releaseYear: Int // e.g. 1871
var itemType: Int // 0 = Book, 1 = Movie, 2 = Music


// but later...
itemType = 374002872
```

Enumerations: Use Case

```
var itemName: String // e.g. "Middlemarch"
var releaseYear: Int // e.g. 1871
var itemType: ??? // Book, Movie, Music, Game, Event
```

a new enumeration type

Enumerations: Raw Values

```
enum BottleSize              {
    case half
    case standard
    case magnum
    case jeroboam
    case rehoboam
    case methuselah
    case balthazar
}
```

Enumerations: Raw Values

```
enum BottleSize: String {  // String, Int, Double...
    case half
    case standard
    case magnum
    case jeroboam
    case rehoboam
    case methuselah
    case balthazar
}
```

Enumerations: Raw Values

```swift
enum BottleSize: String { // String, Int, Double...
    case half = "37.5 cl"
    case standard = "75 cl"
    case magnum = "1.5 litres"
    case jeroboam = "3 litres"
    case rehoboam = "4.5 litres"
    case methuselah = "6 litres"
    case balthazar = "12 litres"
}
var myBottle: BottleSize = .jeroboam
print("Your \(myBottle) is \(myBottle.rawValue)")
```

> Your jeroboam is 3 litres

Enumerations: Associated Values

```swift
enum MediaType {
    case movie(String)
    case music(Int)
    case book(String)
}

var firstItem: MediaType = .movie("Comedy")
var secondItem: MediaType = .music(120)

switch firstItem {
case .movie(let genre):
    print("It's a \(genre) movie")
case .music(let bpm):
    print("The music is \(bpm) beats per minute")
case .book(let author):
    print("It's by \(author)")
}
```

Structs: Use Case

```
var title: String

var director: String

var releaseYear: Int
// etc...
```

Structs: Use Case

```
struct Movie {

    var title: String

    var director: String

    var releaseYear: Int

    // etc...
}
```

Dictionaries

(In various languages,
called a **Map**,

Dictionaries

(In various languages, called a **Map**, ...or **Symbol Table**, ...or **Associative Array** ...or **Dictionary**)

	Array
0	Hydrogen
1	Lithium
2	Sodium
3	Potassium
4	Rubidium
5	Caesium
...	...

Array

keys	values
SWA	Southwest Airlines
BAW	British Airways
CPA	Cathay Pacific
AAL	American Airlines
BHA	Buddha Air
DAL	Delta Air Lines
...	...

Dictionary

Dictionaries

keys   **values**

SWA	Southwest Airlines
BAW	British Airways
CPA	Cathay Pacific
AAL	American Airlines
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DAL	Delta Air Lines
...	...

0	Hydrogen
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Array   Dictionary

Dictionaries

Array

0	Hydrogen
1	Lithium
2	Sodium
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...	...

Dictionary

keys	values
SWA	Southwest Airlines
BAW	British Airways
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...	...

Dictionary

72	Fabian Pohl
1	Janet Gilbert
21	Maéva Lemaitre
12	Bob Jones
192	Ananya Sen
421	Bob Jones
...	...