

Enumerations: Use Case

```
var itemName: String // e.g. "Middlemarch"
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Enumerations: Use Case

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var itemName: String // e.g. "Middlemarch"  
var releaseYear: Int // e.g. 1871
```

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var itemName: String // e.g. "Middlemarch"  
var releaseYear: Int // e.g. 1871  
var itemType: String // e.g. "Book" or "Movie" or "Music"
```

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```
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"
```

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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"
```

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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..."
```

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


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```
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
```

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var itemName: String // e.g. "Middlemarch"  
var releaseYear: Int // e.g. 1871  
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```

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

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```
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 {  
    case half  
    case standard  
    case magnum  
    case jeroboam  
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Enumerations: Raw Values

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enum BottleSize: String {  
    case half  
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    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

```
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"
}
```

Enumerations: Raw Values

```
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
```

Enumerations: Raw Values

```
enum BottleSize: String { // String, Int, Double...
    case half = "37.5 cl"
    case standard = "75 cl"
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    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)")
```

Enumerations: Raw Values

```
enum BottleSize: String { // String, Int, Double...
    case half = "37.5 cl"
    case standard = "75 cl"
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    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

```
enum MediaType {  
    case movie  
    case music  
    case book  
}
```

Enumerations: Associated Values

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

Enumerations: Associated Values

```
enum MediaType {  
    case movie(String)  
    case music(Int)  
    case book(String)  
}  
  
var firstItem: MediaType = .movie
```

Enumerations: Associated Values

```
enum MediaType {  
    case movie(String)  
    case music(Int)  
    case book(String)  
}  
  
var firstItem: MediaType = .movie("Comedy")
```


Enumerations: Associated Values

```
enum MediaType {  
    case movie(String)  
    case music(Int)  
    case book(String)  
}  
  
var firstItem: MediaType = .movie("Comedy")  
var secondItem: MediaType = .music(120)
```

Enumerations: Associated Values

```
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:  
    // ...  
case .music:  
    // ...  
case .book:  
    // ...  
}
```

Enumerations: Associated Values

```
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):  
    // ...  
case .music(let bpm):  
    // ...  
case .book(let author):  
    // ...  
}
```

Enumerations: Associated Values

```
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

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**)

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

Array

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Cathay Pacific
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12	Bob Jones
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