



# Identifiers all the way

# **1 ○ Unifying the concept of identified objects**

```
struct Something {  
    let id: Int  
    /* other properties */  
}
```

```
struct Something: Identifiable {  
    let id: Int  
    /* other properties */  
}
```

```
protocol Identifiable {  
    var id: Int { get }  
}
```

```
struct Something: Identifiable {  
    let id: Int  
    /* other properties */  
}
```

```
protocol Identifiable {  
    var id: Int { get }  
}
```

```
extension Collection where Element: Identifiable {  
    func first(identifiedBy id: Int) -> Element? {  
        first { $0.id == id }  
    }  
}
```

```
struct Something: Identifiable {  
    let id: Int  
    /* other properties */  
}
```

```
struct SomethingPainful: Identifiable {  
    let id: String  
    /* other properties */  
}
```

```
protocol Identifiable {  
    var id: Int { get }  
}
```

```
extension Collection where Element: Identifiable {  
    func first(identifiedBy id: Int) -> Element? {  
        first { $0.id == id }  
    }  
}
```

```
struct Something: Identifiable {  
    let id: Int  
    /* other properties */  
}
```

Type 'SomethingPainful' does not conform to protocol 'Identifiable'

```
struct SomethingPainful: Identifiable {  
    let id: String  
    /* other properties */  
}
```



```
protocol Identifiable {  
    var id: Int { get }  
}
```

```
extension Collection where Element: Identifiable {  
    func first(identifiedBy id: Int) -> Element? {  
        first { $0.id == id }  
    }  
}
```

```
struct Something: Identifiable {  
    let id: Int  
    /* other properties */  
}
```

```
struct SomethingPainful: Identifiable {  
    let id: String  
    /* other properties */  
}
```

```
protocol Identifiable {  
    associatedtype Identifier: Hashable  
    var id: Identifier { get }  
}
```

```
extension Collection where Element: Identifiable {  
    func first(identifiedBy id: Int) -> Element? {  
        first { $0.id == id }  
    }  
}
```



```
protocol Identifiable {  
    associatedtype Identifier: Hashable  
    var id: Identifier { get }  
}
```

```
protocol Identifiable {  
    associatedtype Identifier: Hashable  
    var id: Identifier { get }  
}
```

```
func presentArticleDetail(forArticleId id: String)
```

```
protocol Identifiable {  
    associatedtype Identifier: Hashable  
    var id: Identifier { get }  
}
```

```
func presentArticleDetail(forArticleId id: String)
```

```
func presentArticleDetail(for id: Article.ID)
```

**2**



**Safely manipulate identifier**

```
struct Identifier<Value: Hashable>: Hashable {  
    private let id: Value  
  
    init(_ value: Value) {  
        self.id = value  
    }  
}
```

```
struct Identifier<Value: Hashable>: Hashable {  
    private let id: Value  
  
    init(_ value: Value) {  
        self.id = value  
    }  
}
```

```
struct Dog: Identifiable {  
    let id: Identifier<String>  
}
```

```
struct Cat: Identifier {  
    let id: Identifier<String>  
}
```

```
struct Identifier<Value: Hashable>: Hashable {  
    private let id: Value  
  
    init(_ value: Value) {  
        self.id = value  
    }  
}
```

```
struct Dog: Identifiable {  
    let id: Identifier<String>  
}
```

```
struct Cat: Identifier {  
    let id: Identifier<String>  
}
```

```
func call(byItsName id: Cat.ID) -> Cat {}  
func call(byItsName id: Dog.ID) -> Dog {}
```

```
struct Identifier<Value: Hashable, Model>: Hashable {  
    private let id: Value  
  
    init(_ value: Value) {  
        id = value  
    }  
}
```

```
struct Dog: Identifiable {  
    let id: Identifier<String, Dog>  
}
```

```
struct Cat: Identifier {  
    let id: Identifier<String, Cat>  
}
```

```
func call(byItsName id: Cat.ID) -> Cat {}  
func call(byItsName id: Dog.ID) -> Dog {}
```



**3**



**Identifying the right way**

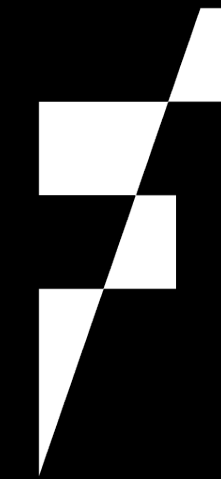
```
protocol Identifiable {  
    var id: Int { get }  
}
```

```
protocol Identifiable {  
    associatedtype Identifier: Hashable  
    var id: Identifier { get }  
}
```

```
struct Identifier<Value: Hashable, Model>: Hashable {  
    private let id: Value  
  
    init(_ value: Value) {  
        id = value  
    }  
}
```



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**FABERNOVEL**

**THANK YOU**

