

# Intermediate Swift

Part 1: Structs

# Structs and Classes

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- ⚙ methods
  - ⚙ properties
  - ⚙ initializers
  - ⚙ extensions
  - ⚙ protocols
- ⚙ Structs are value types, classes are reference types.
  - ⚙ Structs do not use inheritance, type casting, or deinitializers.
  - ⚙ Structs are designed to encapsulate simple data values.



# Methods

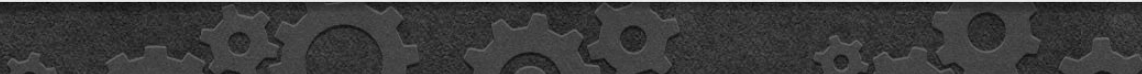
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- ⚙️ Methods on value types cannot modify a property by default.
- ⚙️ To modify a property, use the **mutating** keyword.

```
struct Square {  
  
    var x = 1  
    var y = 1  
    var width = 5  
    var height = 5  
  
    mutating func reset() {  
        x = 1  
        y = 1  
        width = 5  
        height = 5  
    }  
}
```

# Demo

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# Challenge Time!

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```
var vectorA = Vector(x: 0, y: 4, z: 15)
var vectorB = Vector(x: 10, y: 20, z: 15)

vectorA.add(vectorB)
vectorA.x // 10
vectorA.y // 24
vectorA.z // 30
```

