

Ethan Faggett - Homework #1

Questionnaire:

What is the difference between var and let?

- Both the 'var' and let will create properties but they differ slightly. The var creates a mutable variable that can accept value changes. The 'let' is defining a constance that can not be changed.

What is an optional?

- An optional is a property that can hold two values. It can hold a value of it's type or a nil value. It is typically used when you are not sure if the value will exist when you need it and an optional is the safest route to go.

What is optional chaining vs optional binding?

- Optional chaining is chaining together multiple optional properties to get a value. If it fails, then the whole operation fails and no value is assigned. For optional binding, it uses an if let or if var to check if a value exists and if it does it assign it.

What are the different ways to unwrap an optional? How do they work? Are they safe?

- There are typically three options for this: 1 - is force unwrapping. This works but could be dangerous if the value is nil. 2 - check for nil - we could check if the optional is not nil and if not then use said Optional. 3 - optional binding - we can use if let/var and check the value and if its good then it will perform the action. 4 - nil-coalescing operator. This will check for a nil value also and if the value is valid it will set the value but if not, it will use the pdefault va

What is a closure?

- A closure is a block of code that can be passed around in code and implemented at a later point.

What is the difference between a class and a struct?

- A class is an object that is passed by reference and points to one point in memory. With a struct, we get unique copies of value each time we create a new instance.

What is the syntax '??' do?

- This is the nil-coalescing operator. It helps to unwrap an optional. If the value is not nil, it will return the value else, it will return a default value if it is nil.

What is a tuple?

- A tuple is a group of different values that can store 2 or more items of different data types.

What is Any vs AnyObject?

- Any can represent literally any type in Swift including optionals and function types. AnyObject, tends to only cover an instance of a class type.

What is a protocol?

- A protocol defines methods or properties that can be adopted by classes or other types to perform tasks.

What is Delegation

- A delegate is a controller object with that can be used to control or modify the behavior of another object.