

GoLang: Structs vs Interfaces (Cheat Sheet)

Feature	Interface	Struct
Definition	Defines a set of method signatures (behavior).	Groups fields (data) together.
Purpose	Specifies behavior for multiple types.	Stores and organizes related data.
Contains	Only method definitions, no fields.	Fields (variables) and methods.
Implementation	Implicit — implemented when methods match.	Explicit — fields and methods are defined.
Instantiation	Cannot be directly instantiated.	Can be instantiated with struct literal or new().
Memory	Stores type + value.	Stores actual data.
Polymorphism	Supports polymorphism via method contracts.	No polymorphism unless used with an interface.
Nil Behavior	Nil if both type & value are nil.	Nil struct pointer is straightforward.
Example Use Case	Shape interface for Circle, Rectangle.	User struct with name, email, age.