

# Interfaces

Saber Mesgari



# Generic

- Generic programming is a style of computer programming in which algorithms are written in terms of types **to-be-specified-later** that are then instantiated when needed for specific types provided as parameters.



# Interfaces

- Interface is two thing:
  - It it is a set of methods
  - It is also a type
- An interface type is defined as a set of method signatures.
- A value of interface type can hold any value that implements those methods.



# The Empty Interface

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- A value of interface type can hold any value that implements those methods.



# Interface Values

- Can be thought of as a tuple of a value and a concrete type

`(value, type)`



# Type Assertion

- A type assertion provides access to an interface value's underlying concrete value.

```
t, ok := i.(T)
```



# Type Switches

```
switch v := i.(type) {  
case int:  
    // here v has type int  
case float:  
    // here v has type float  
default:  
    // no match; here v has the same type as i  
}
```

