Encapsulation

Michael Van Sickle

@vansimke

Overview

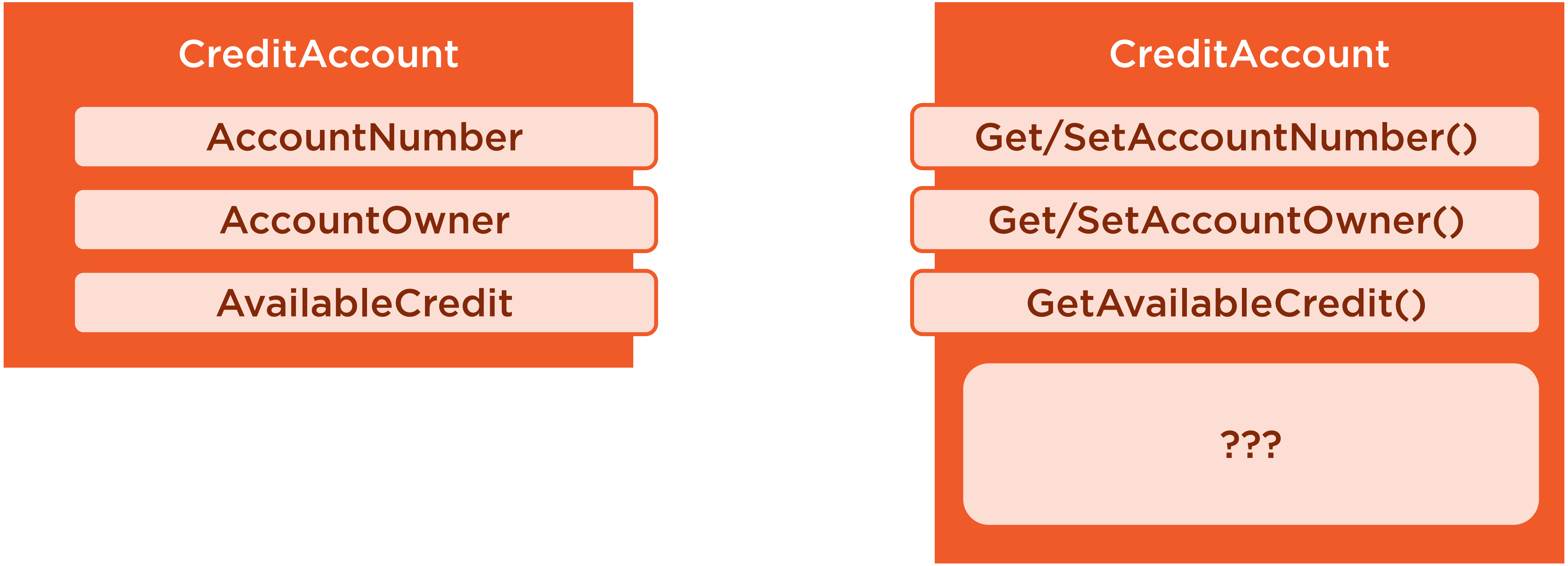
What is encapsulation?

Strategies

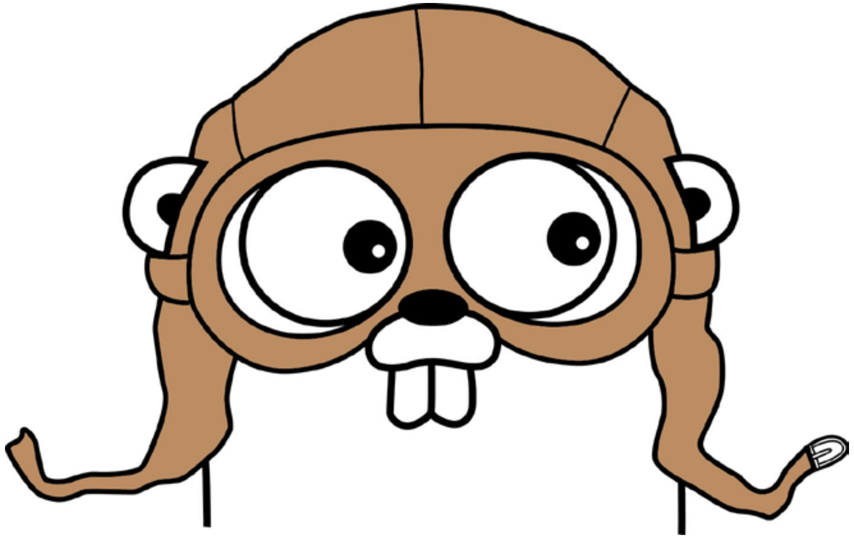
Encapsulation

Accessing a service on an object without knowing how that service is implemented

Encapsulation



Encapsulation Challenges in Go



Go has

- no classes
- no concept of private data

Strategies

Package oriented design

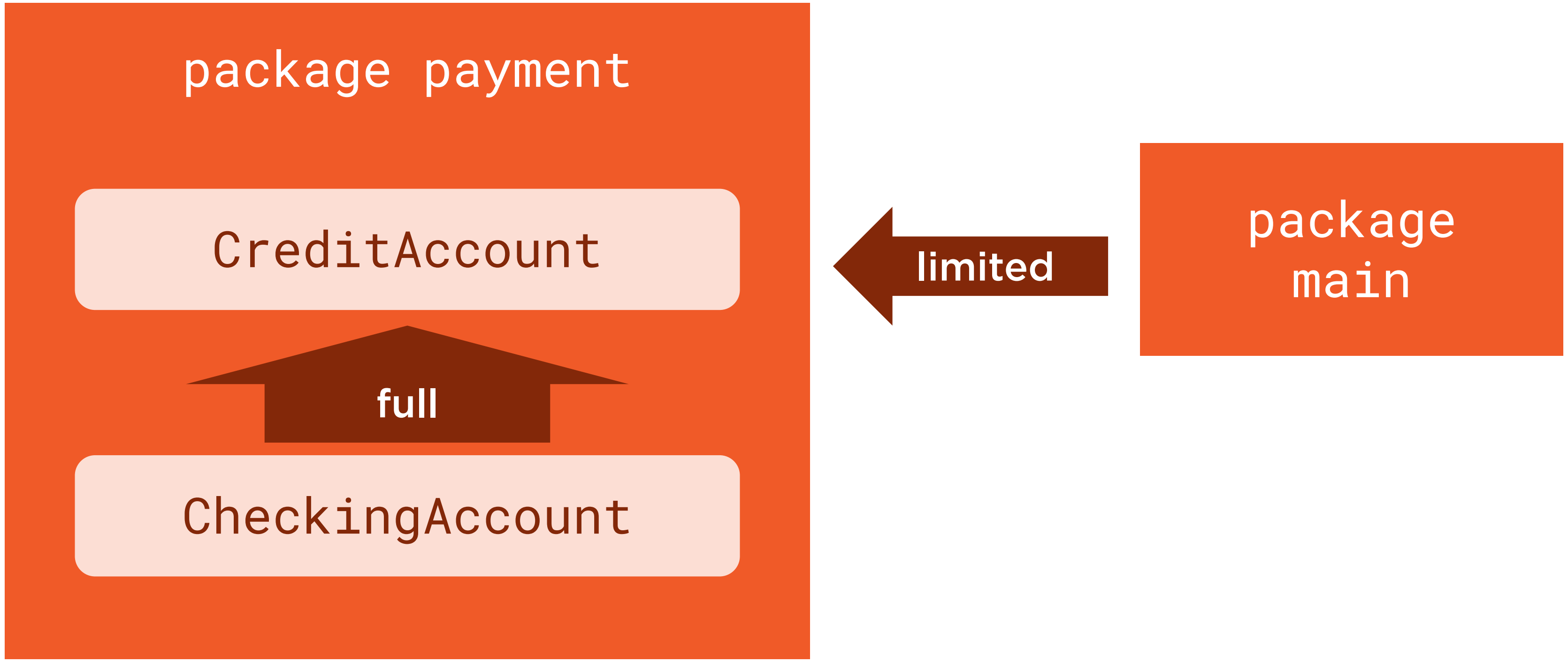
Interfaces

Package Oriented Design

```
package payment
type CreditAccount struct {
    accountNumber string
    accountOwner string
}
func (c CreditAccount) AccountNumber() string
func (c CreditAccount) AccountOwner() string
func (c CreditAccount) AvailableCredit() float32
```

⚠ **Don’t Overuse!**

Package Oriented Design



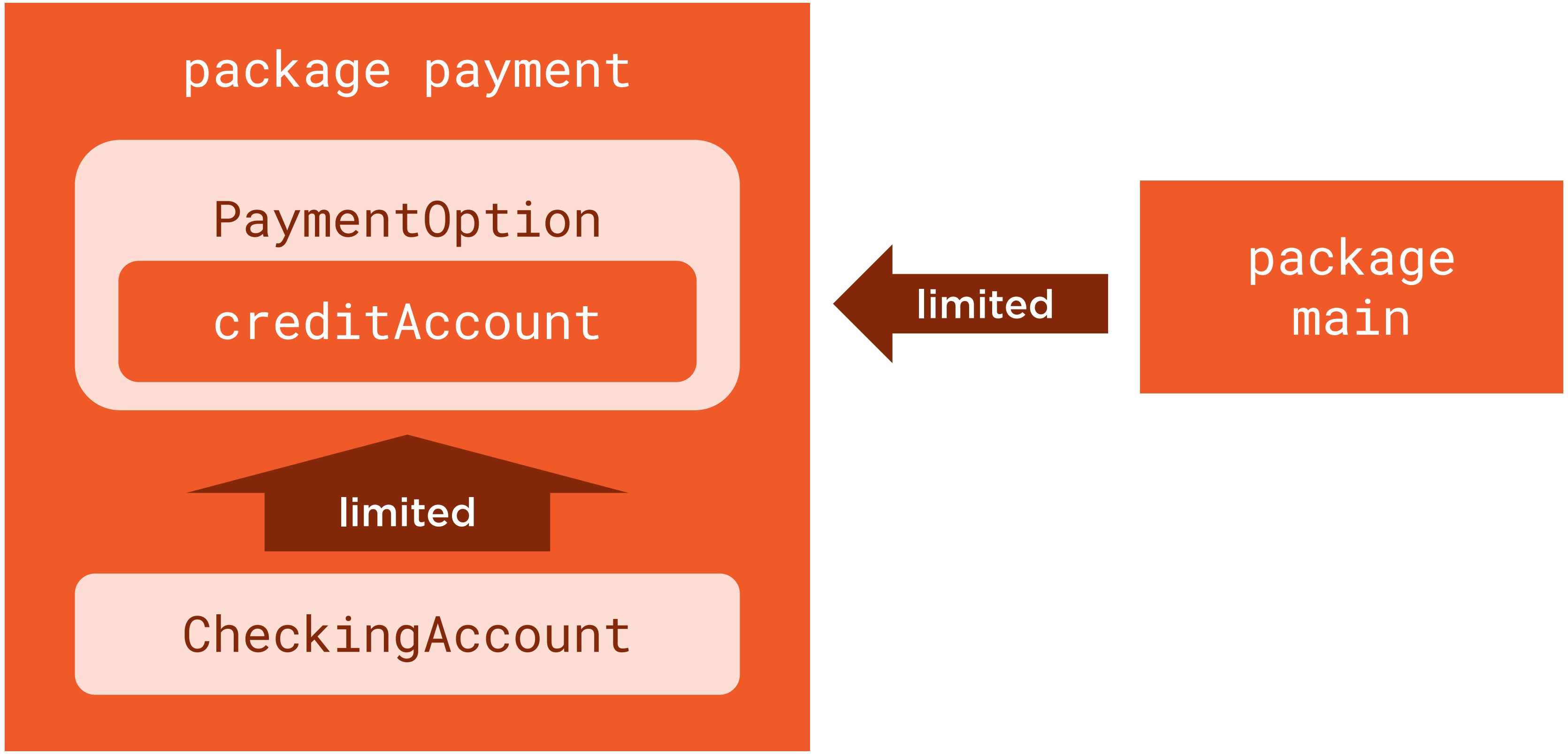
Treat packages as the lowest organizational unit

Interfaces

```go
package payment
type creditAccount struct {}
func (c creditAccount) AccountNumber() string
func (c creditAccount) AvailableCredit() float32

type PaymentOption interface {
    AccountNumber() string
    AvailableCredit() float32
}
```

Interfaces



Use interfaces to fully obscure data

Summary

What is encapsulation?

Strategies

- Package oriented design
- Interfaces