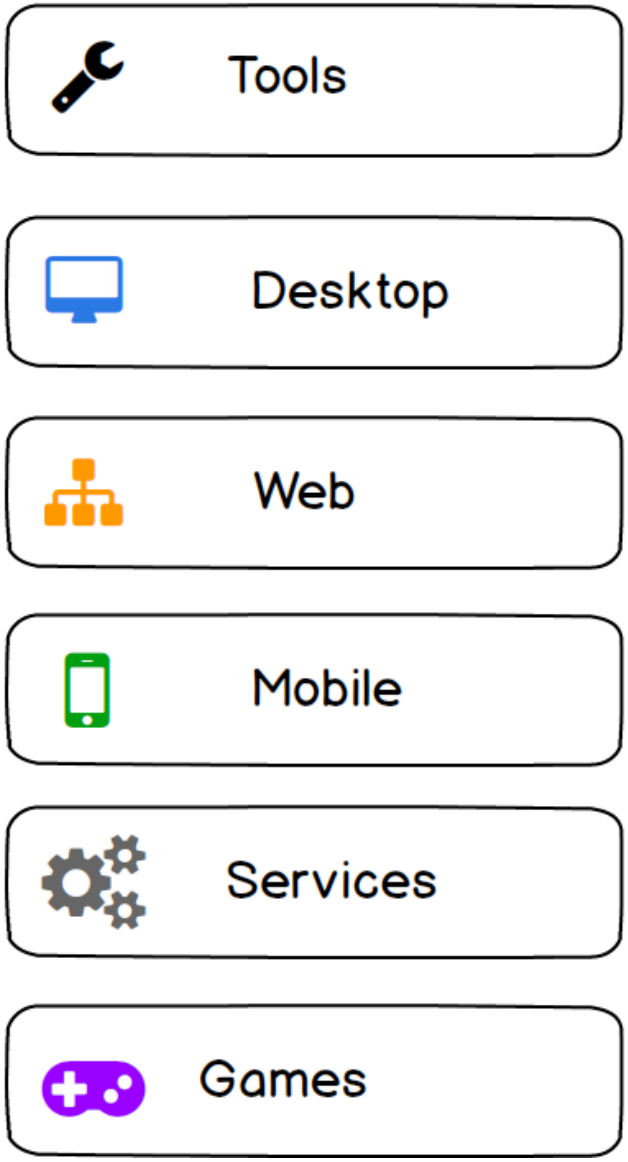
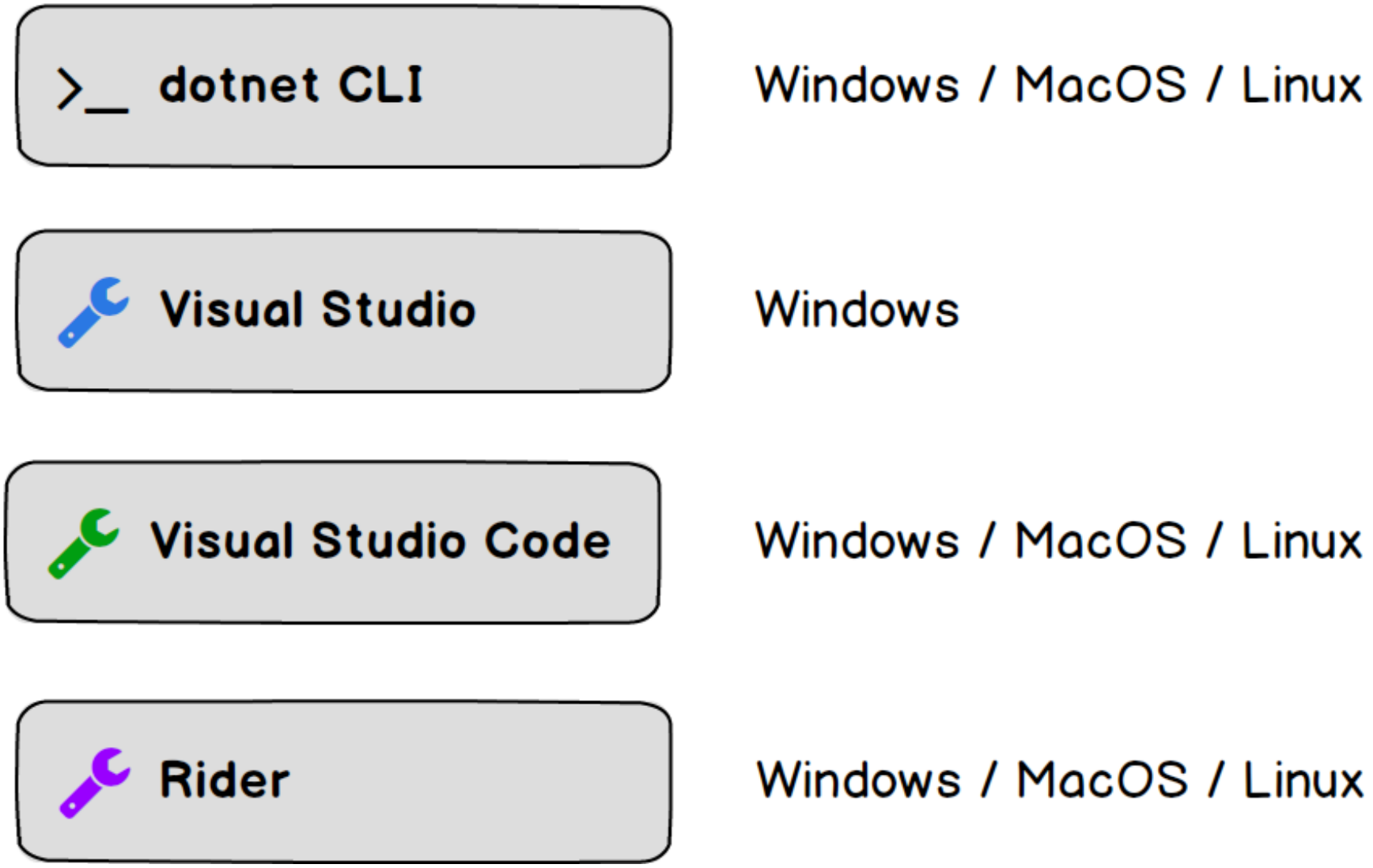
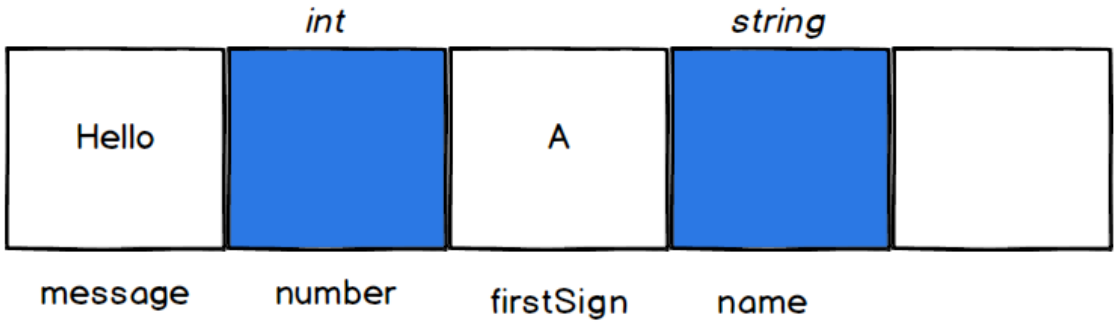
Język C#

Co mogę w nim zrobić?



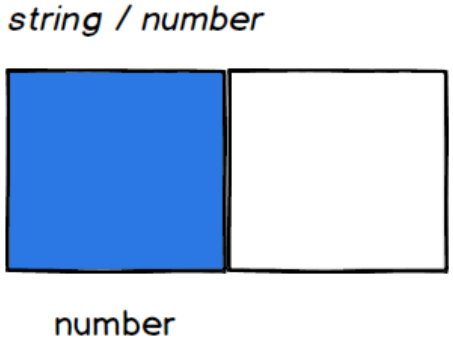

>_ dotnet CLI
Windows / MacOS / Linux
Visual Studio
Windows
Visual Studio Code
Windows / MacOS / Linux
Rider
Windows / MacOS / Linux

static typing (C#)



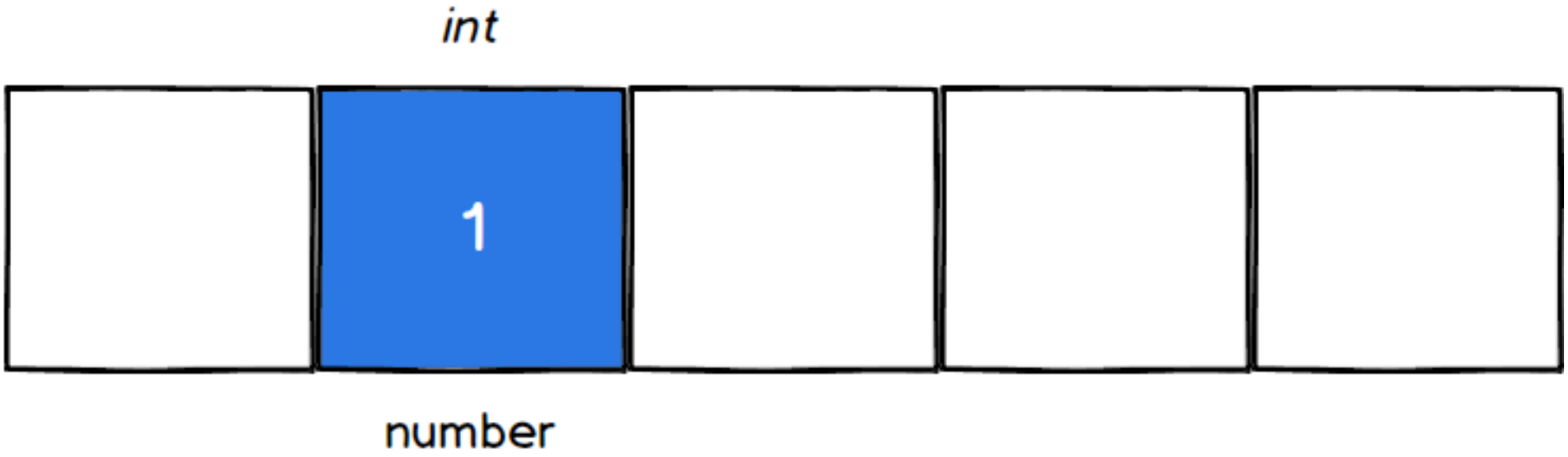

```
int number = 1;
number =  "ABC"; .
```

dynamic typing (JavaScript)



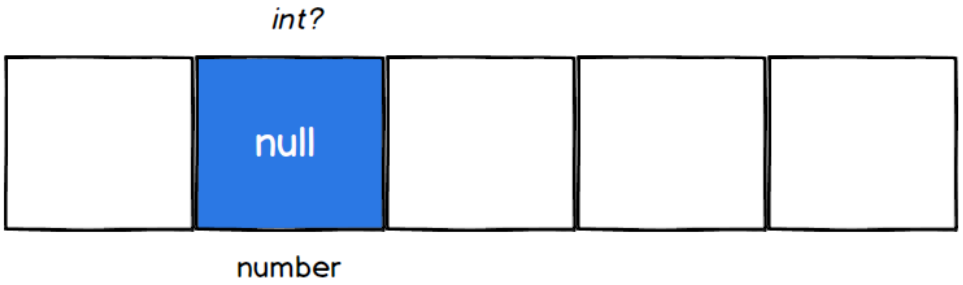

```
var number = 1;
number =  "ABC";
```

Constants

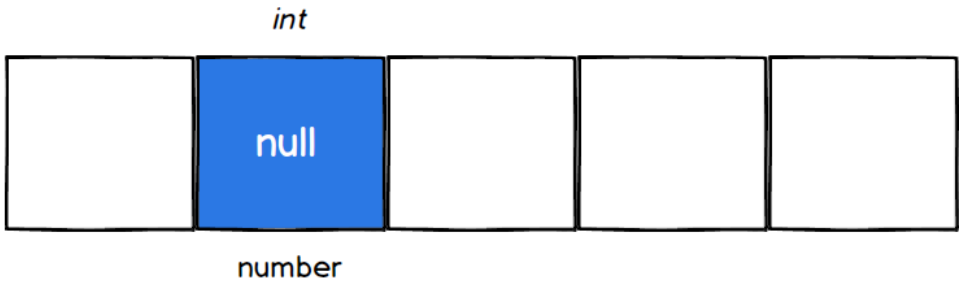



```
const int number = 1;
number =  2; .
```

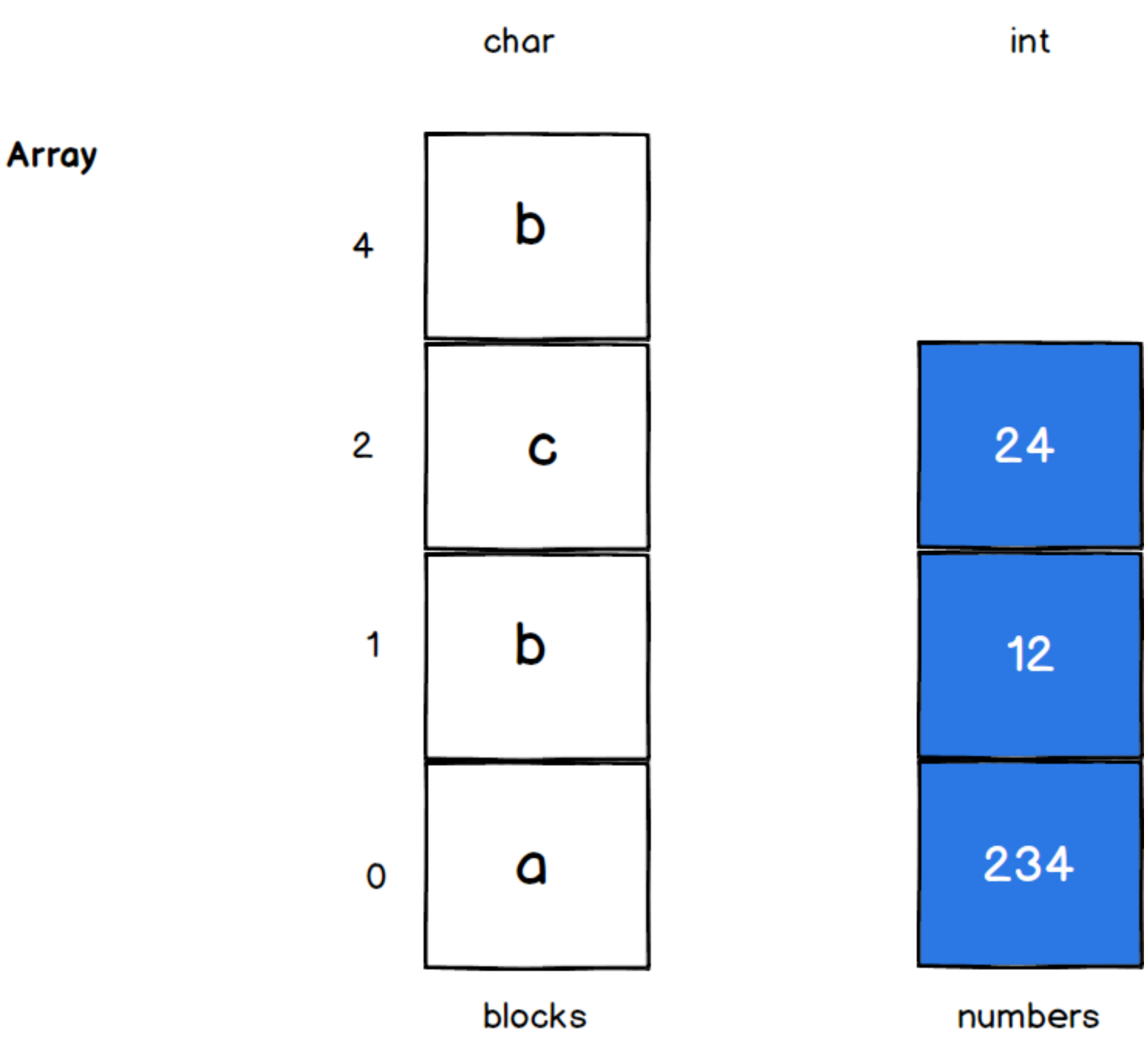
Nullable Value Types



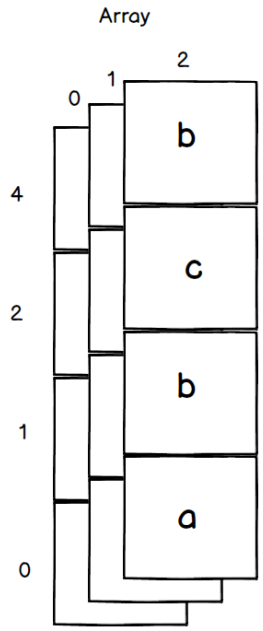

```
int? number = null;

if (number.HasValue) ...
```

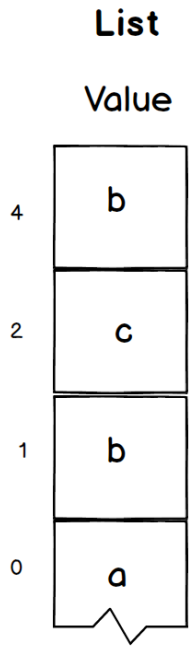


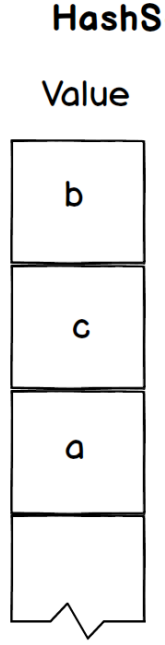

```
*int number = null*;
```

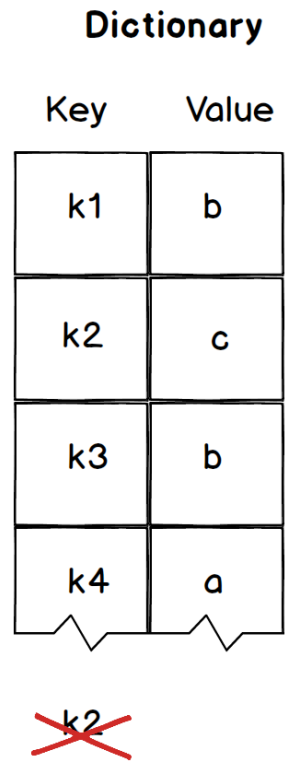

char
int
Array
4
b
2
c
1
b
0
a
24
12
234
blocks
numbers

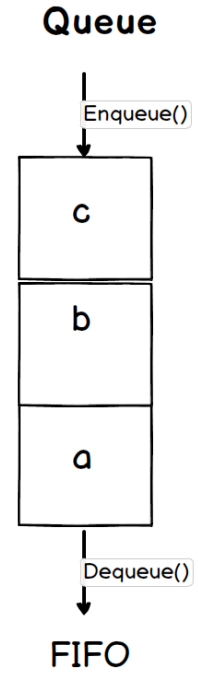
Array vs List

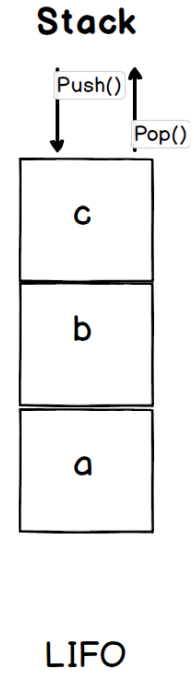


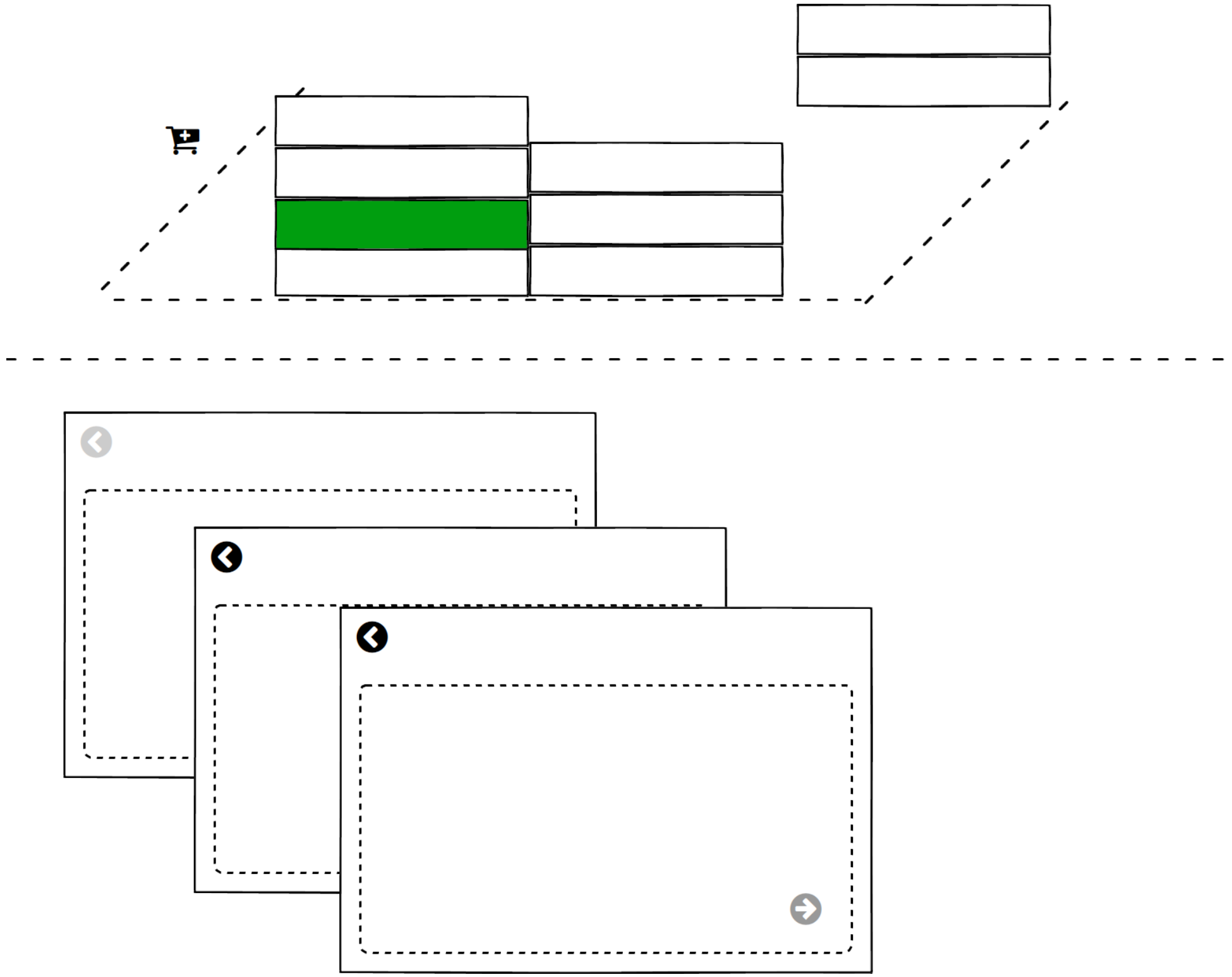




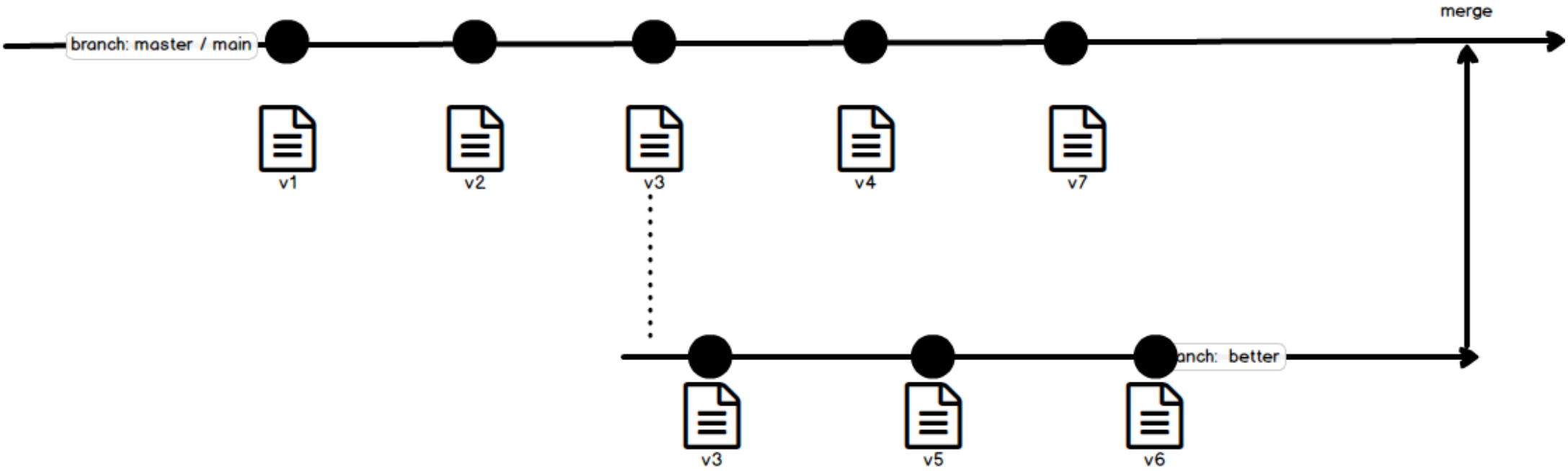






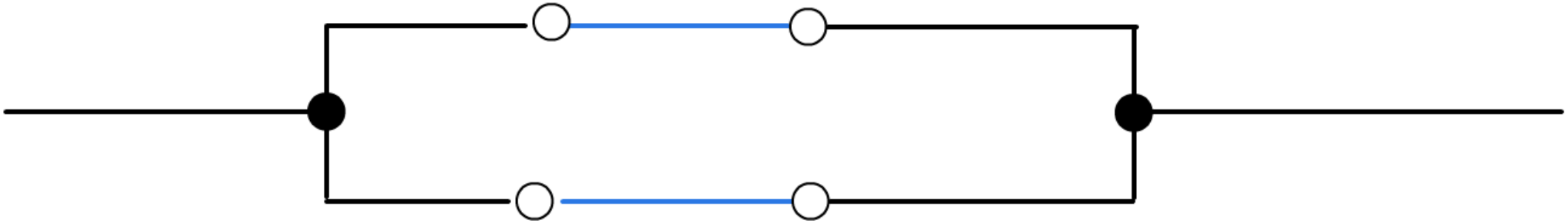


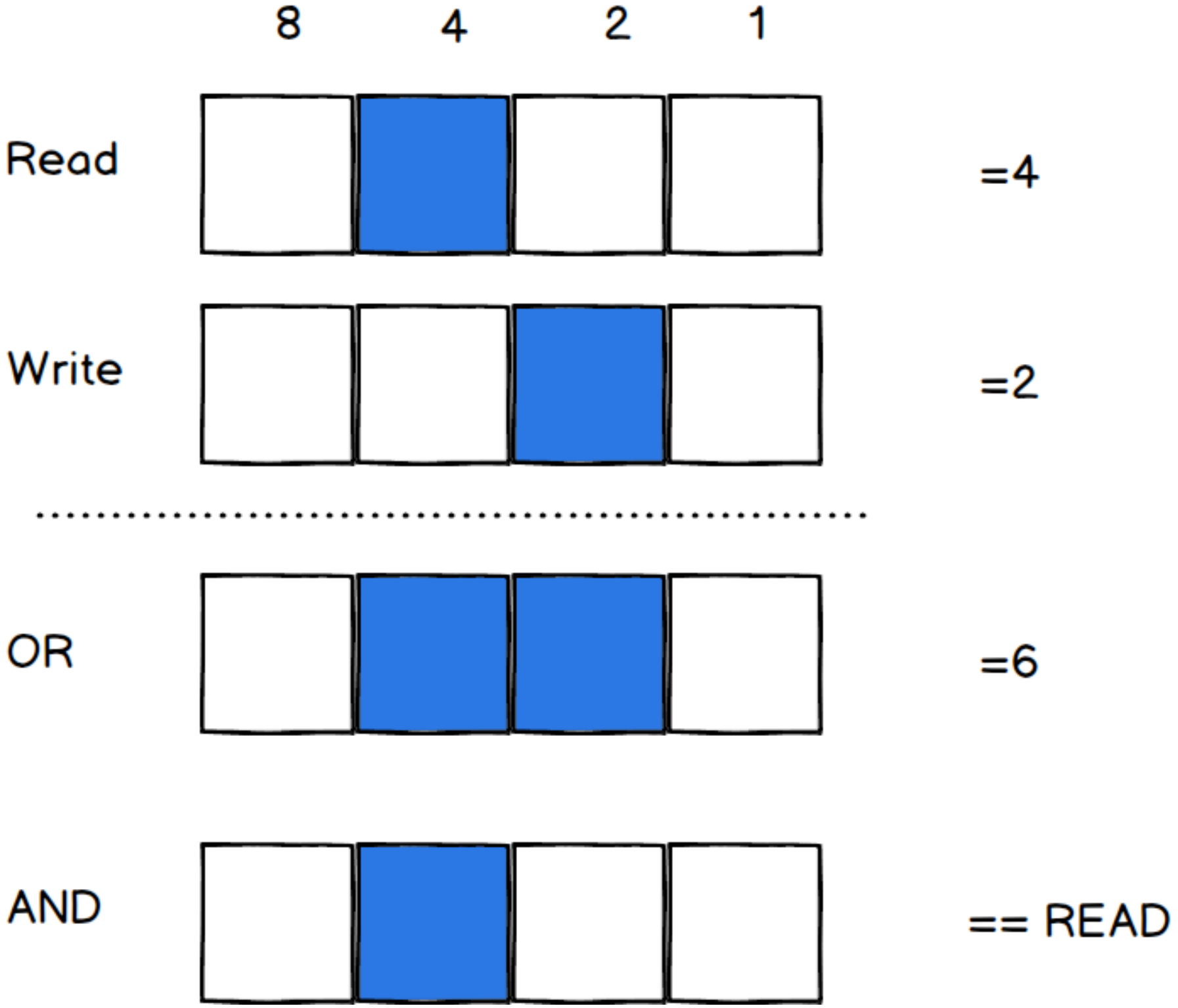
GIT GitHub / GitLab

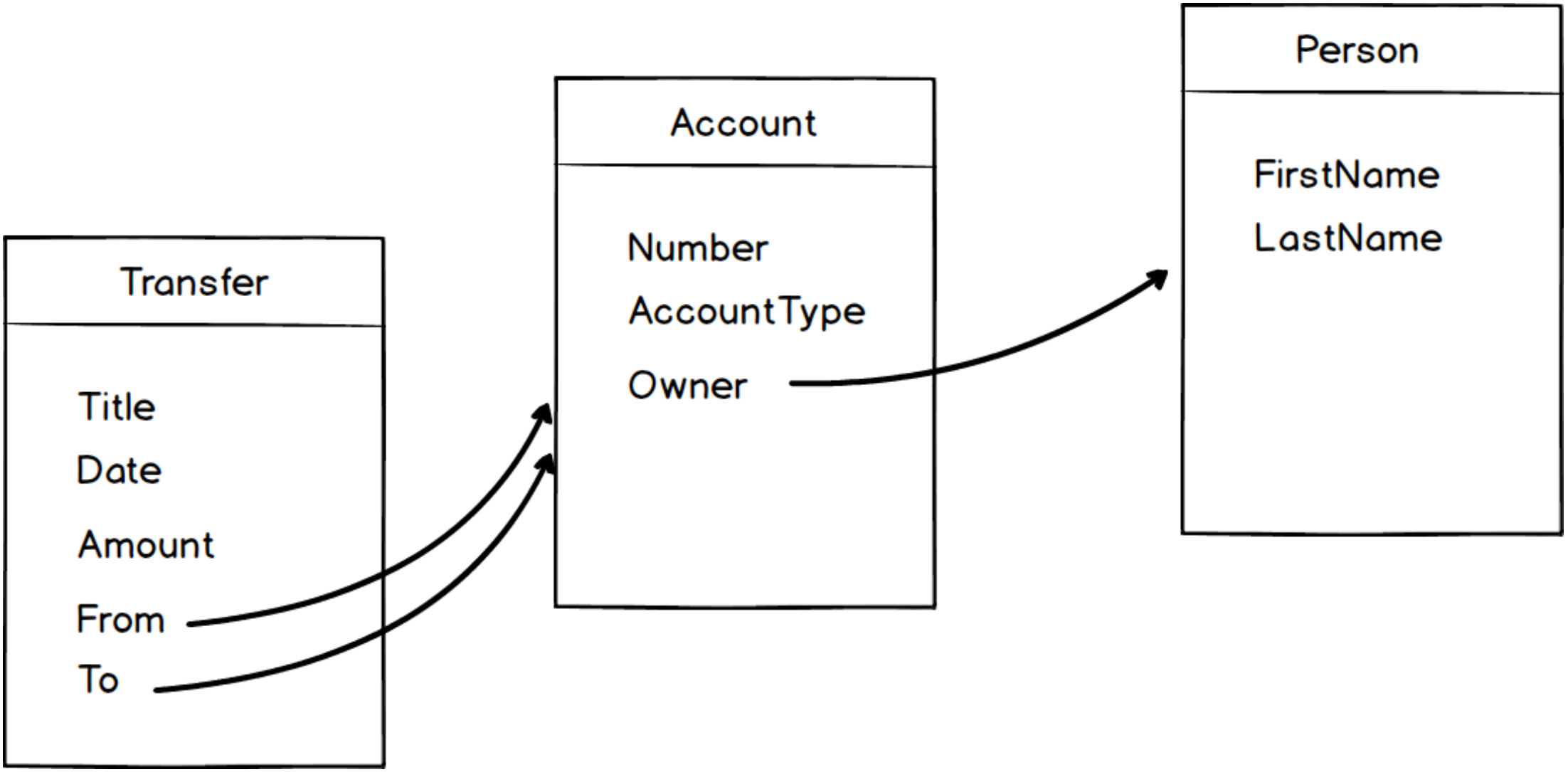


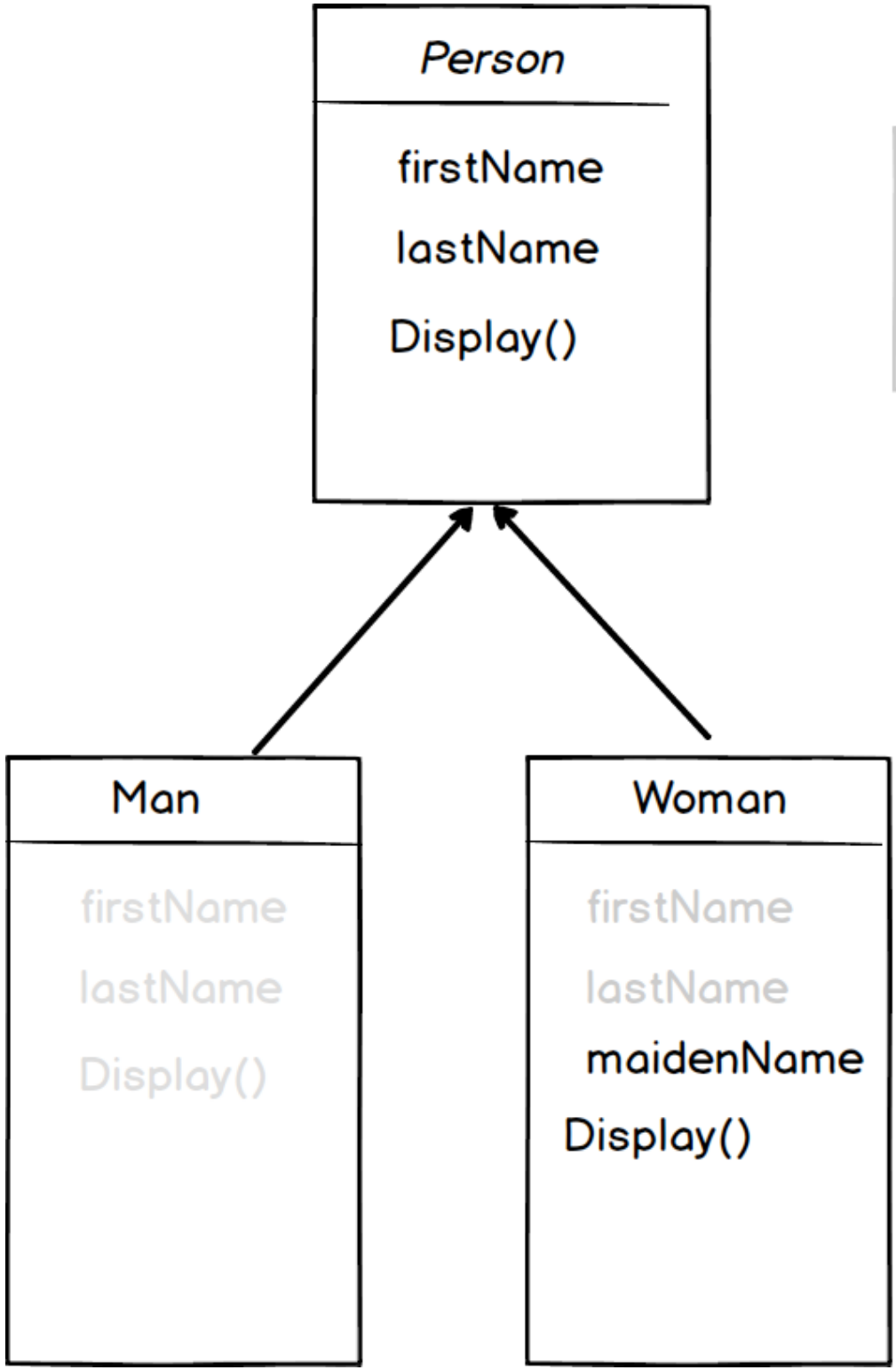
AND

OR

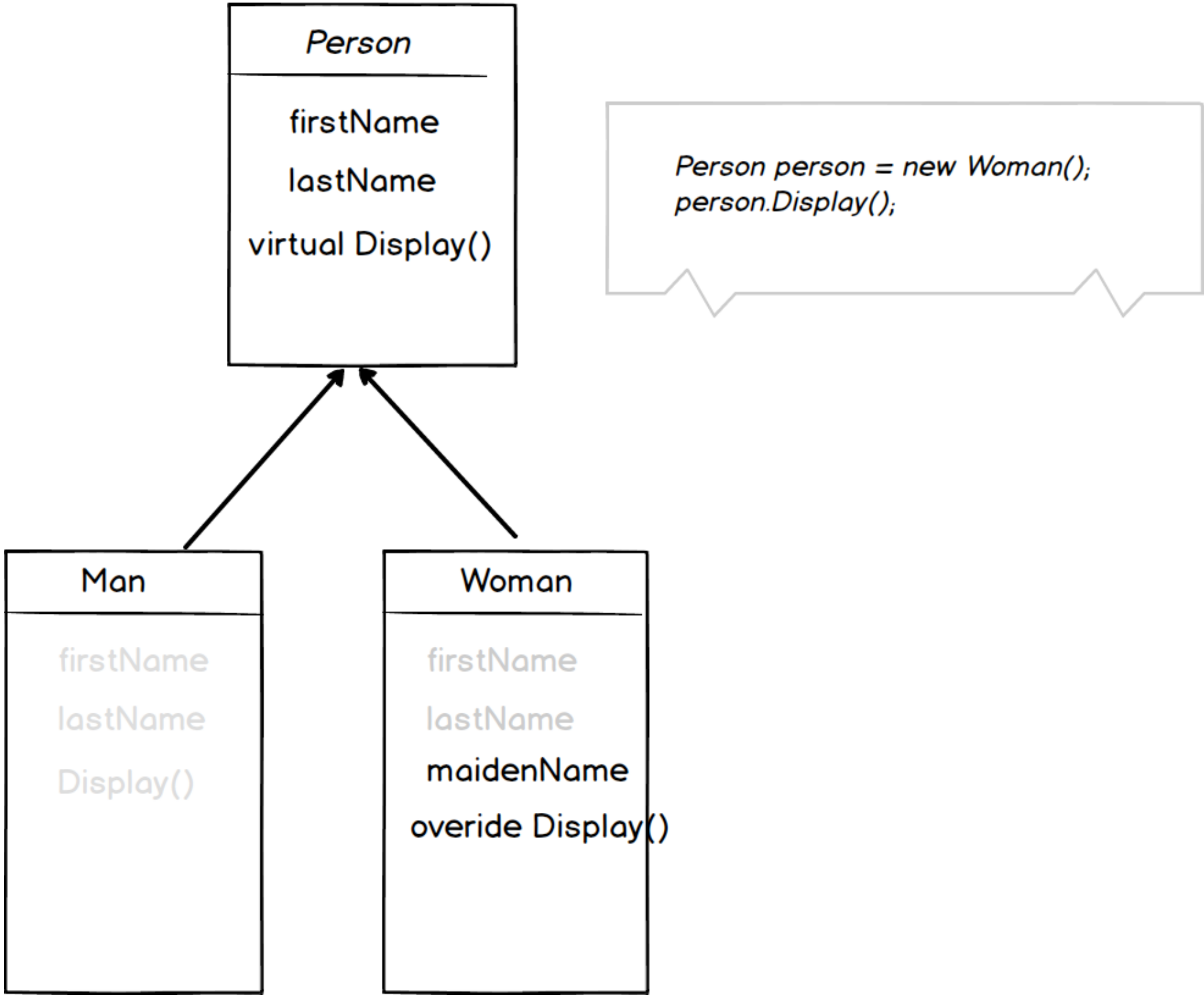


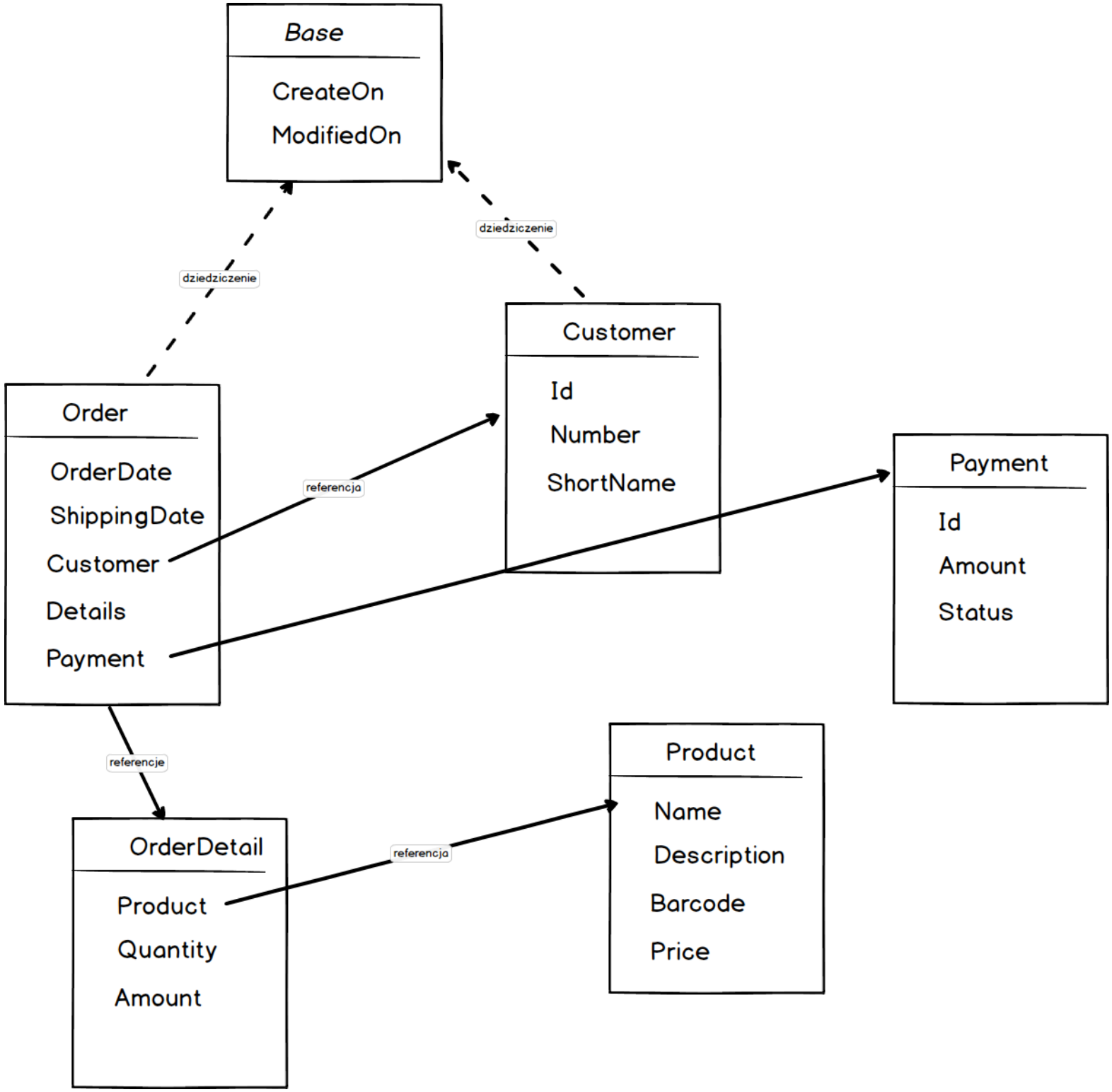

8
4
2
1
Read
=4
Write
=2
OR
=6
AND
== READ

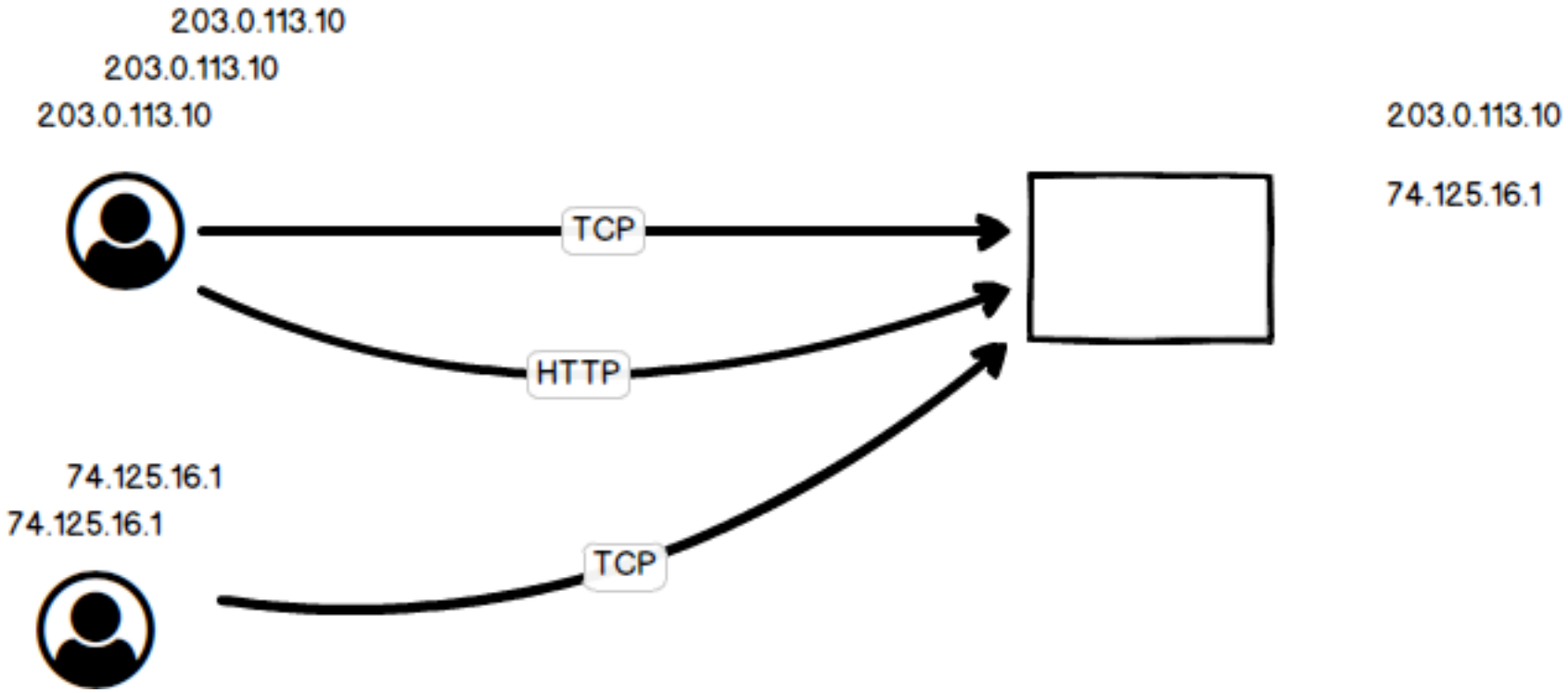

Person
FirstName
LastName
Account
Number
AccountType
Owner
Transfer
Title
Date
Amount
From
To




```
Woman person = new Woman();
person.Display();
```


Person
firstName
lastName
virtual Display()
Person person = new Woman();
person.Display();
Man
firstName
lastName
Display()
Woman
firstName
lastName
maidenName
overide Display()

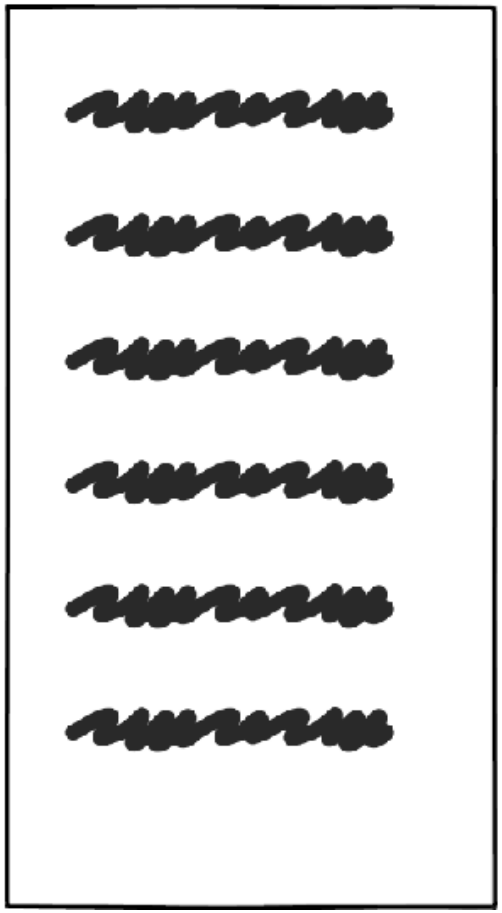

Base
CreateOn
ModifiedOn
dziedziczenie
dziedziczenie
Customer
Id
Number
ShortName
Order
OrderDate
ShippingDate
Customer
Details
Payment
referencja
Payment
Id
Amount
Status
referencje
Product
Name
Description
Barcode
Price
OrderDetail
Product
Quantity
Amount
referencja


203.0.113.10
203.0.113.10
203.0.113.10
203.0.113.10
74.125.16.1
TCP
HTTP
74.125.16.1
74.125.16.1
TCP

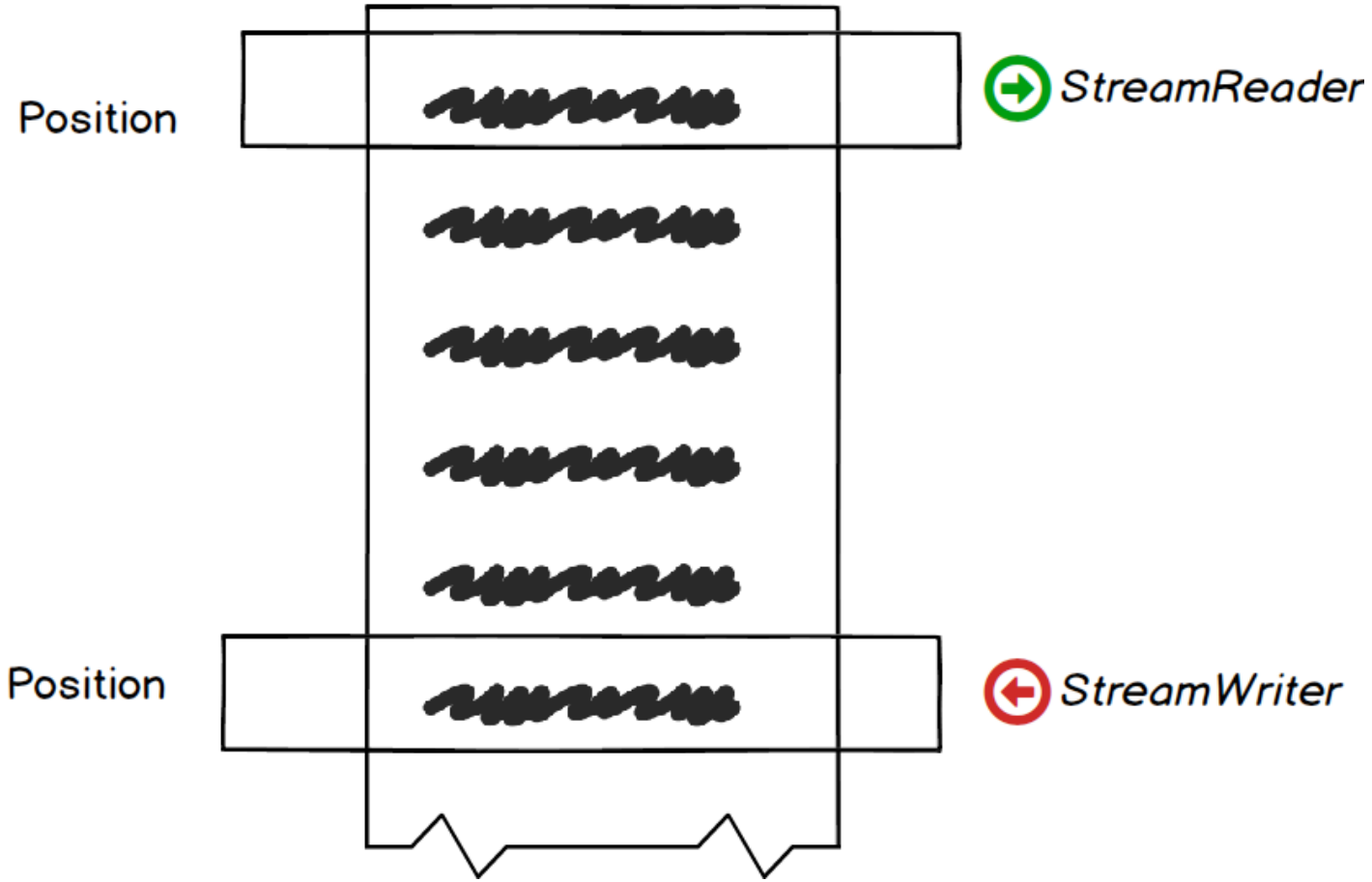
FileStream

MemoryStream

string[] lines = File.ReadAllLines();

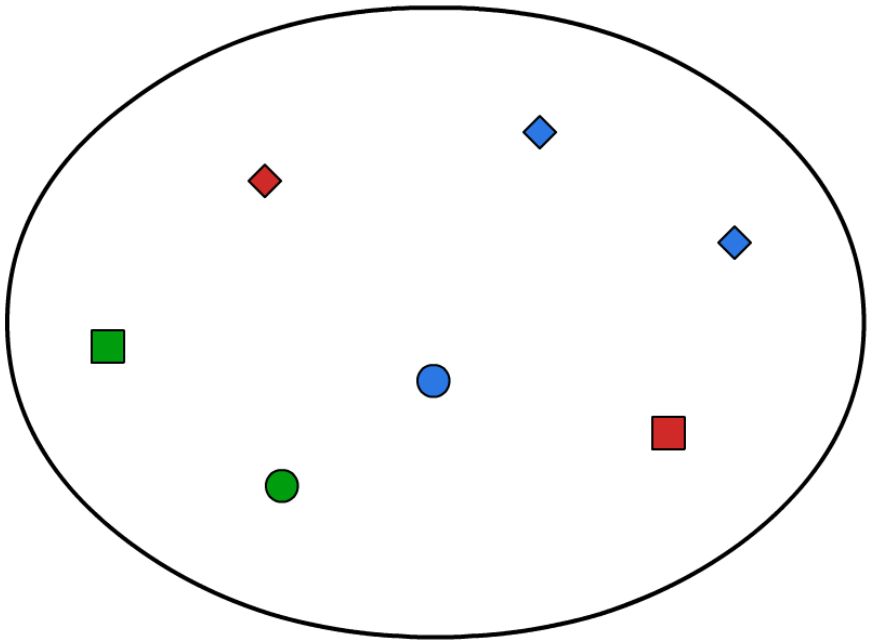


Stream



foreach(string item in items) { ... }

LINQ ..... *interface IEnumerable<T>* ..... *interface IEnumerator*



Collection<string> items

Add(item)

Contains(item)

Remove(item)

string[] items

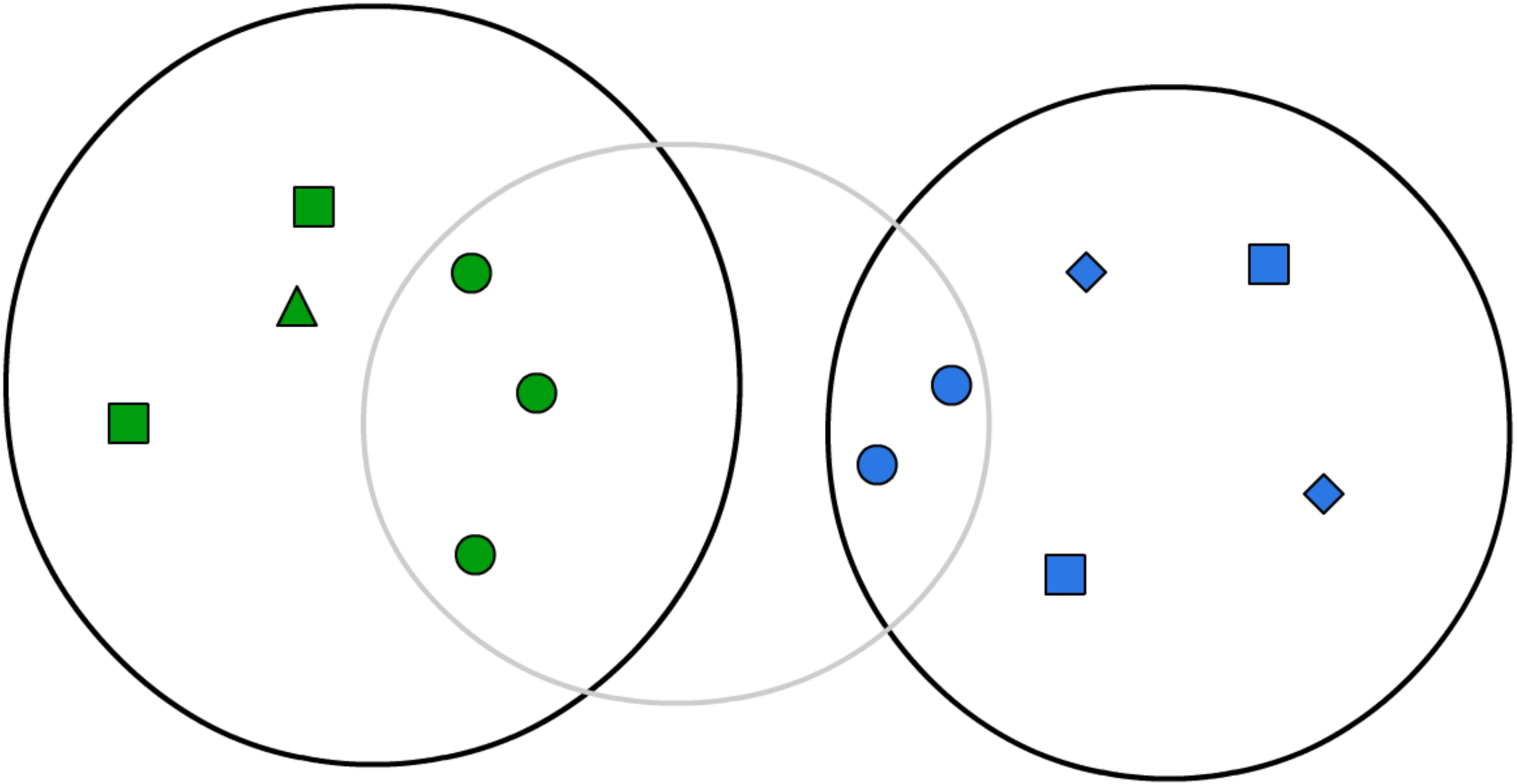
List<string> items

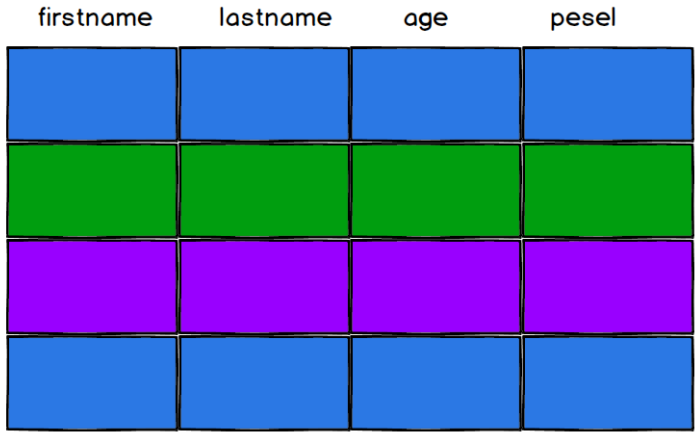
Add(item)

Contains(item)

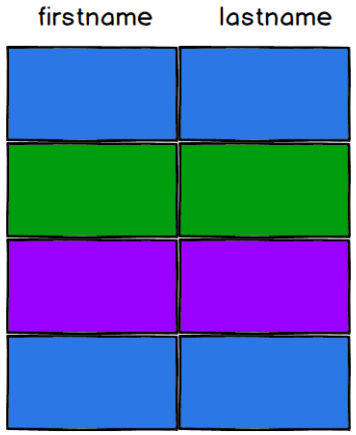
Remove(item)

[index]

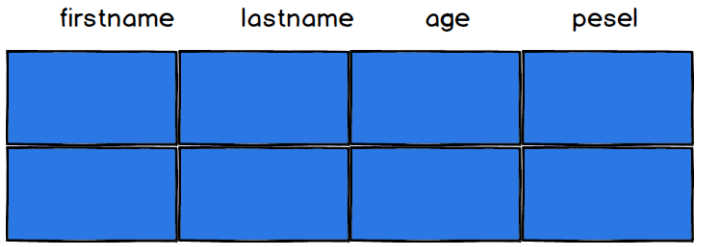




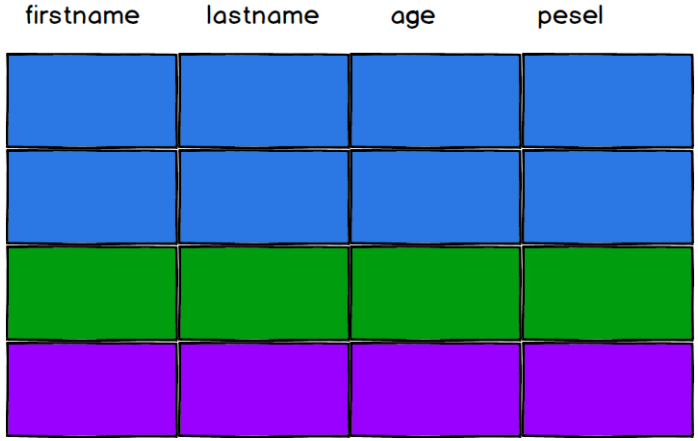
SELECT

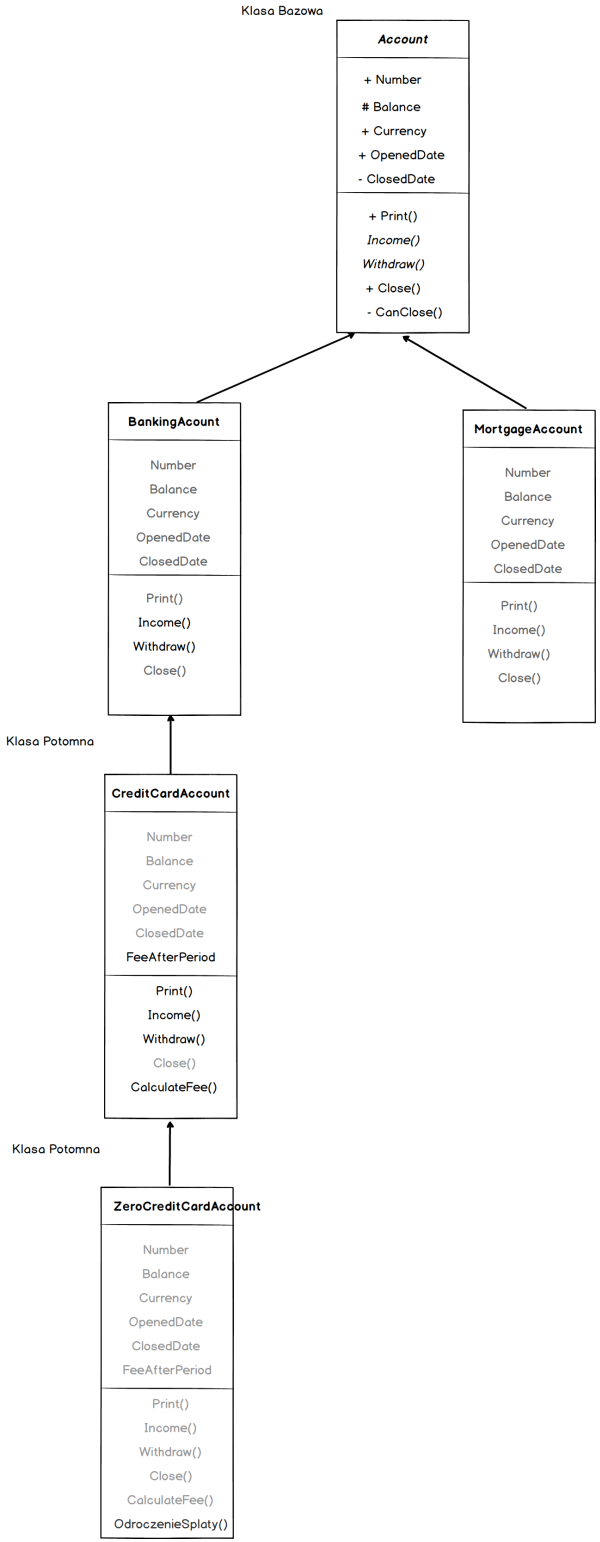


WHERE



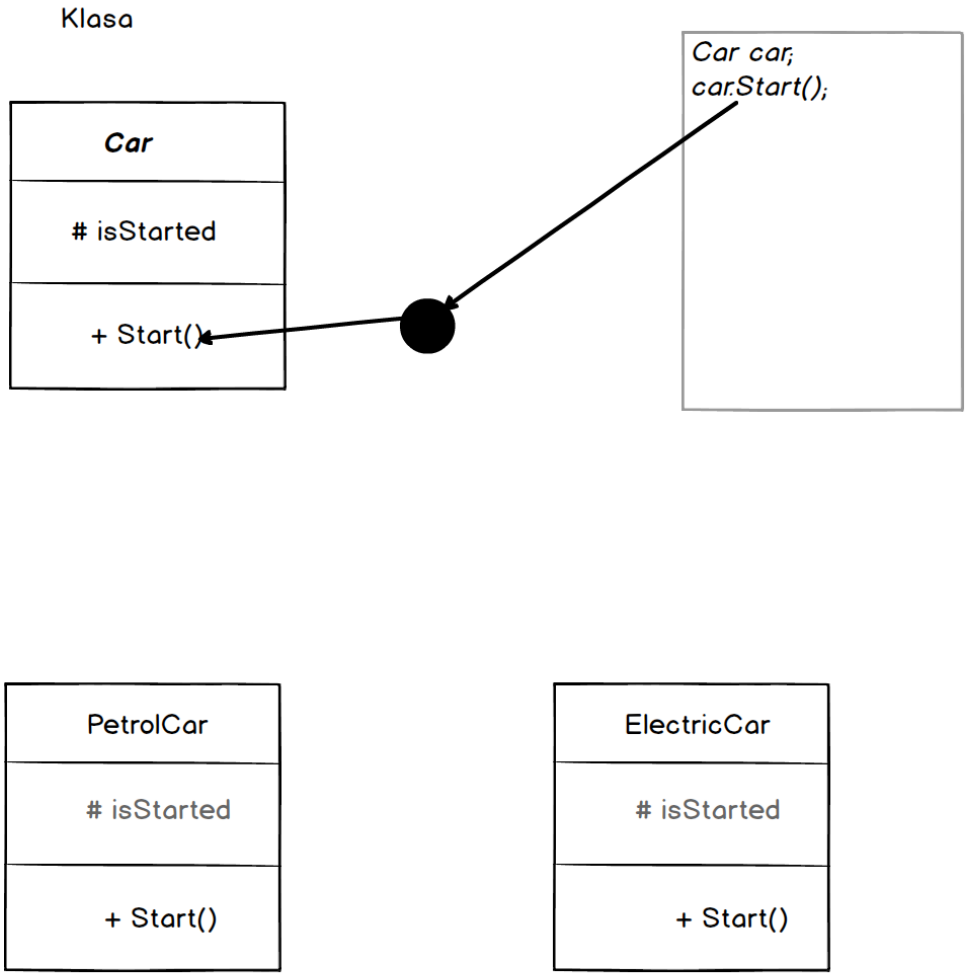
ORDER BY




Klasa Bazowa
Account
+ Number
# Balance
+ Currency
+ OpenedDate
- ClosedDate
+ Print()
Income()
Withdraw()
+ Close()
- CanClose()
BankingAcount
Number
Balance
Currency
OpenedDate
ClosedDate
Print()
Income()
Withdraw()
Close()
MortgageAccount
Number
Balance
Currency
OpenedDate
ClosedDate
Print()
Income()
Withdraw()
Close()
Klasa Potomna
CreditCardAccount
Number
Balance
Currency
OpenedDate
ClosedDate
FeeAfterPeriod
Print()
Income()
Withdraw()
Close()
CalculateFee()
Klasa Potomna
ZeroCreditCardAccount
Number
Balance
Currency
OpenedDate
ClosedDate
FeeAfterPeriod
Print()
Income()
Withdraw()
Close()
CalculateFee()
OdroczenieSplaty()

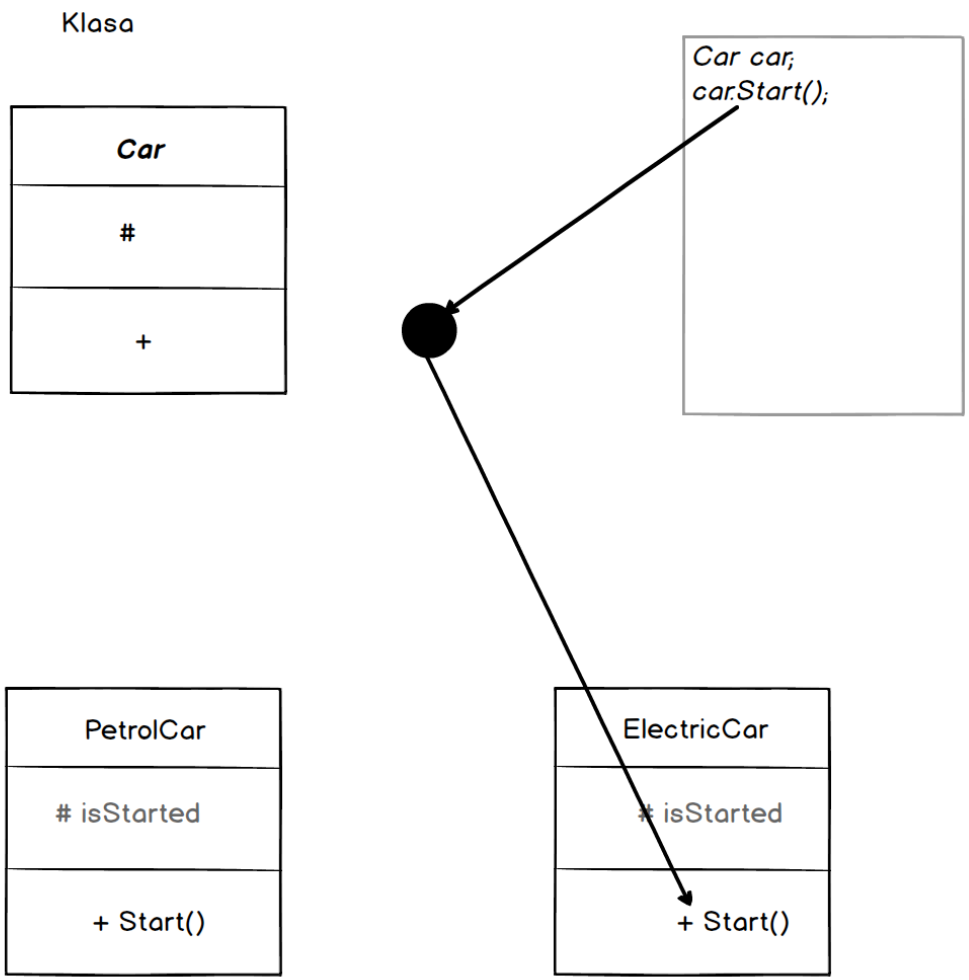
Przysłanianie metody

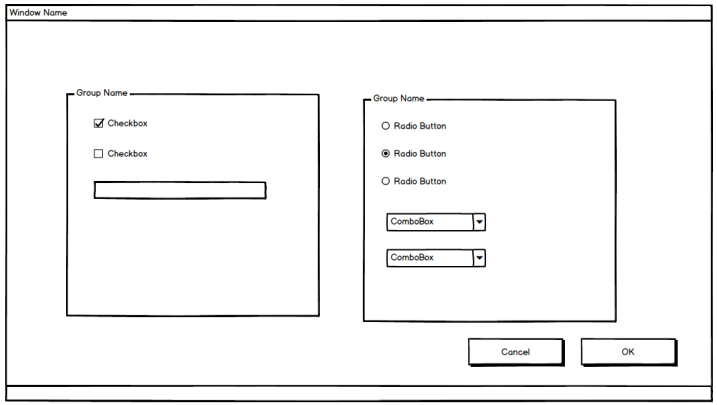
metoda jest ustalana na etapie kompilacji

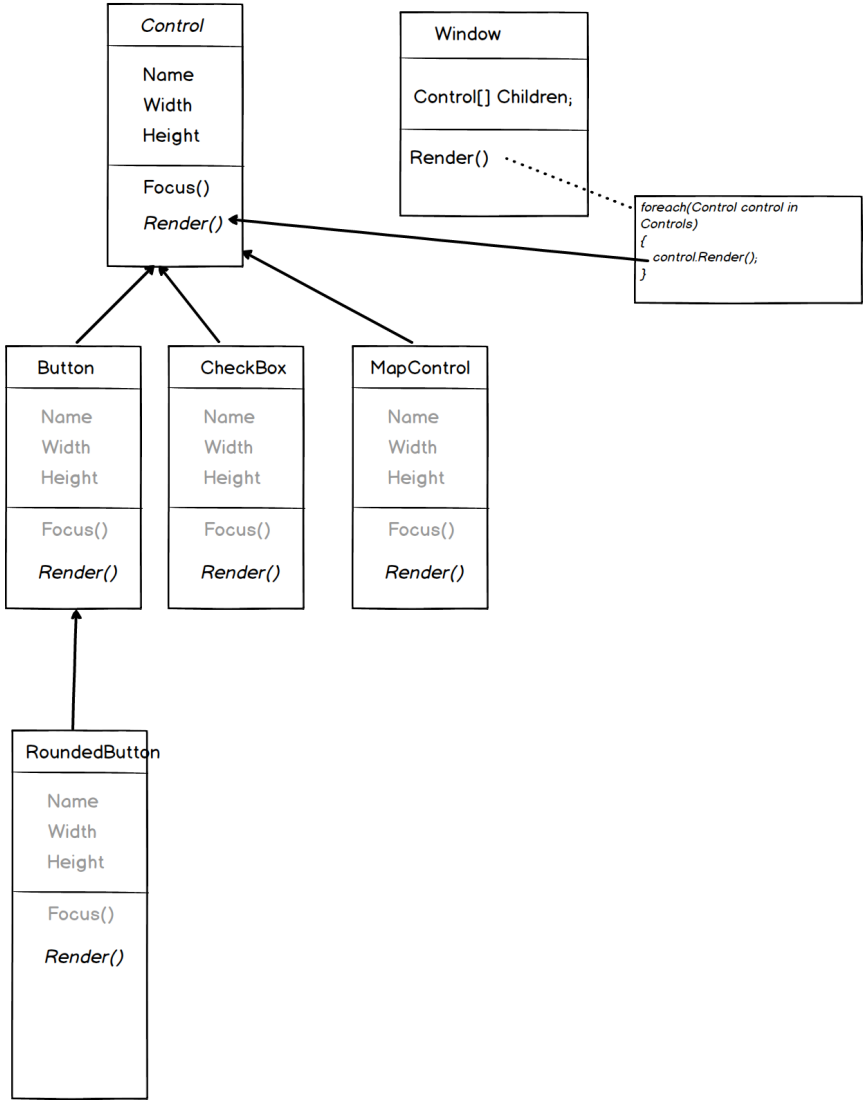


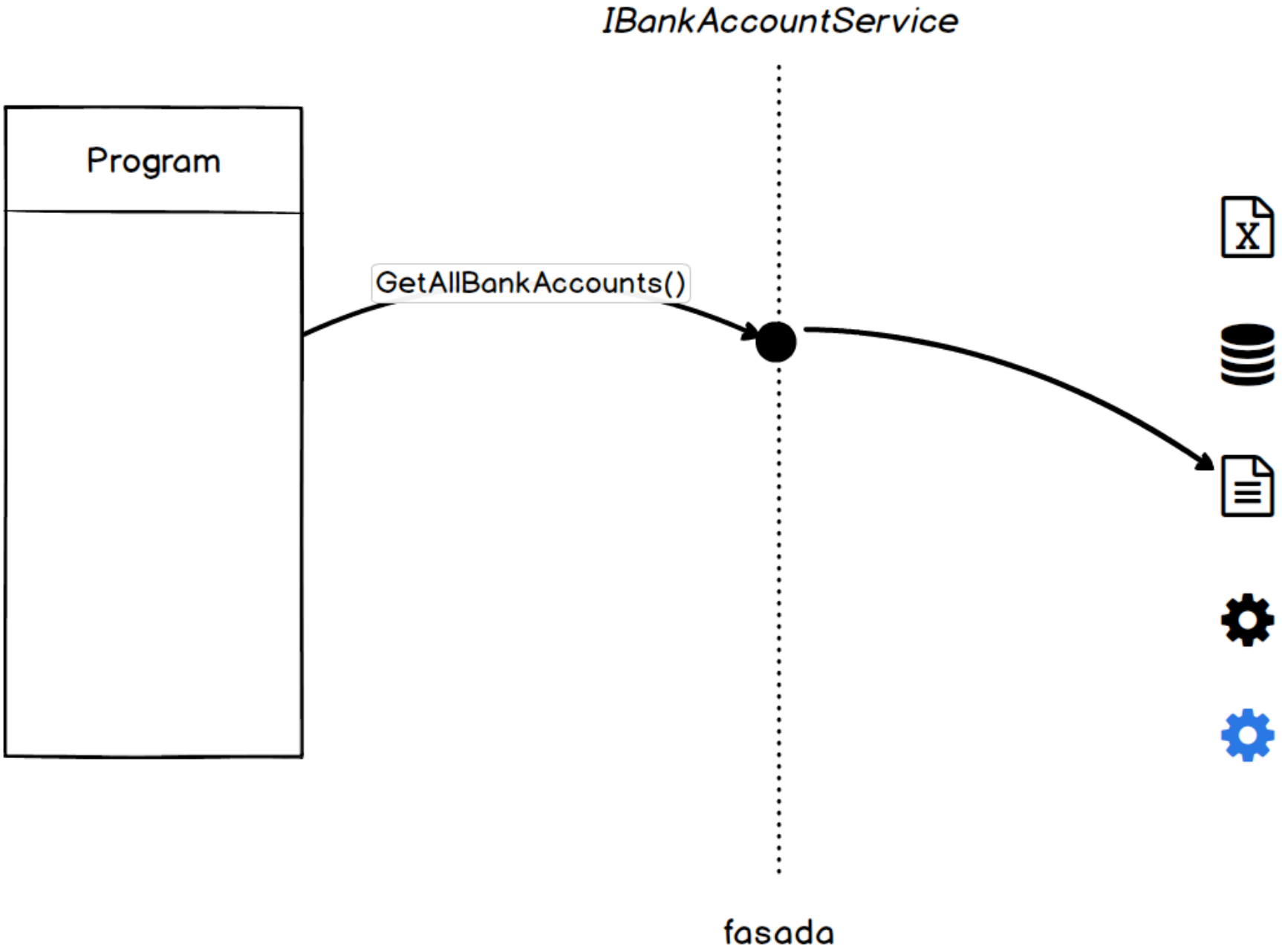
Polimorfizm (virtual - override)

metoda jest ustalana w trakcie działania programu




Window Name
Group Name
Checkbox
Checkbox
Group Name
Radio Button
Radio Button
Radio Button
ComboBox
ComboBox
Cancel
OK


Control
Name
Width
Height
Focus()
Render()
Window
Control[] Children;
Render()
foreach(Control control in Controls)
{
control.Render();
}
Button
Name
Width
Height
Focus()
Render()
CheckBox
Name
Width
Height
Focus()
Render()
MapControl
Name
Width
Height
Focus()
Render()
RoundedButton
Name
Width
Height
Focus()
Render()


IBankAccountService
Program
GetAllBankAccounts()
fasada