
Język C#

Co mogę w nim zrobić?



Tools

Command Line



Desktop

Windows Forms / WPF



Web

MVC / Razor Pages / Blazor



Mobile

MAUI



Services

Web Api



Games

>_ dotnet CLI

Windows / MacOS / Linux



Visual Studio

Windows



Visual Studio Code

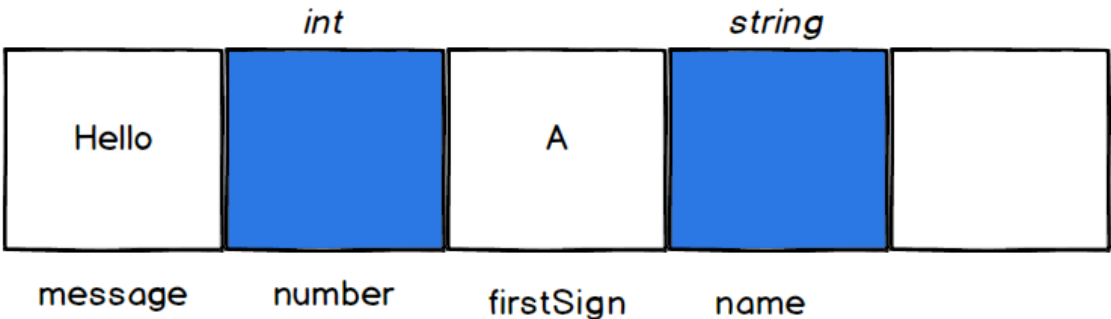
Windows / MacOS / Linux



Rider

Windows / MacOS / Linux

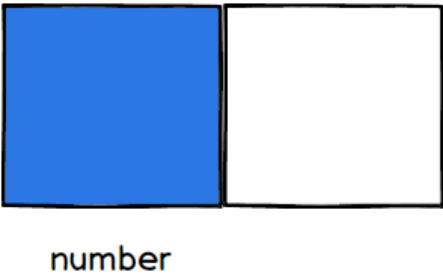
static typing (C#)



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

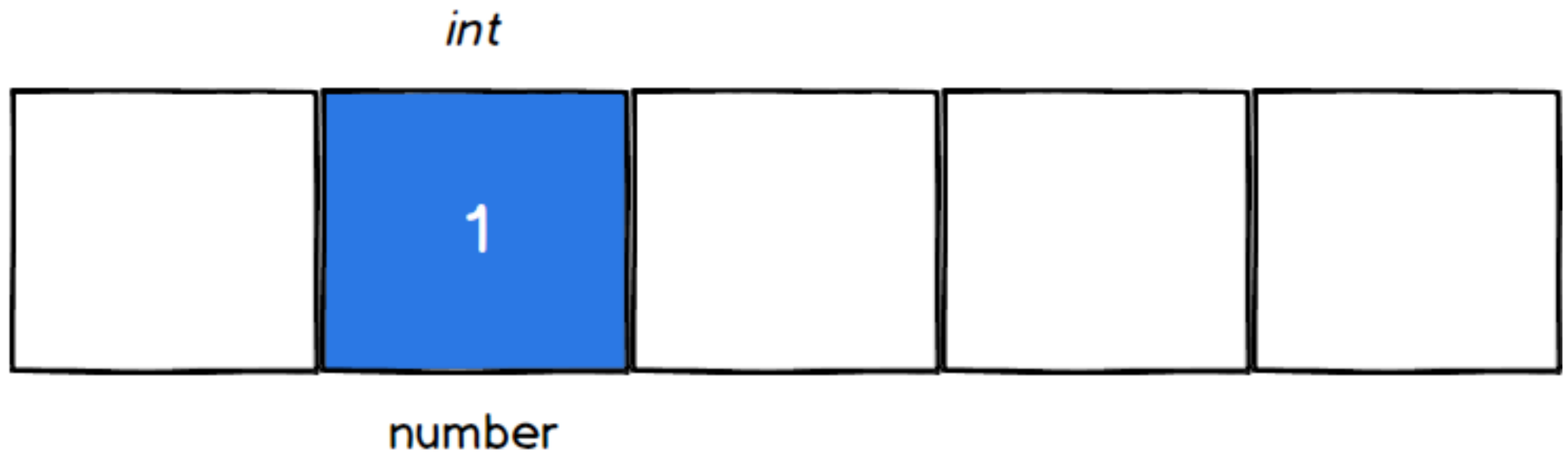
dynamic typing (JavaScript)

string / number



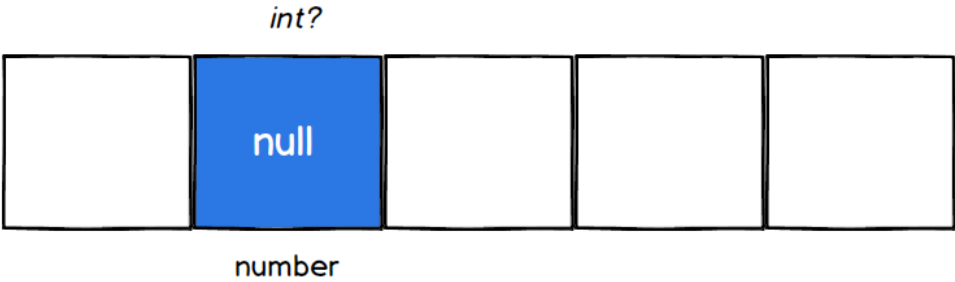
```
var number = 1;  
number = "ABC";
```

Constants

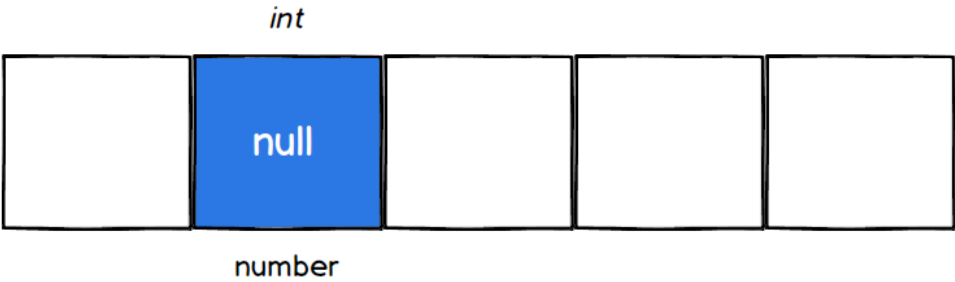


```
const int number = 1;  
number = 2; .
```

Nullable Value Types

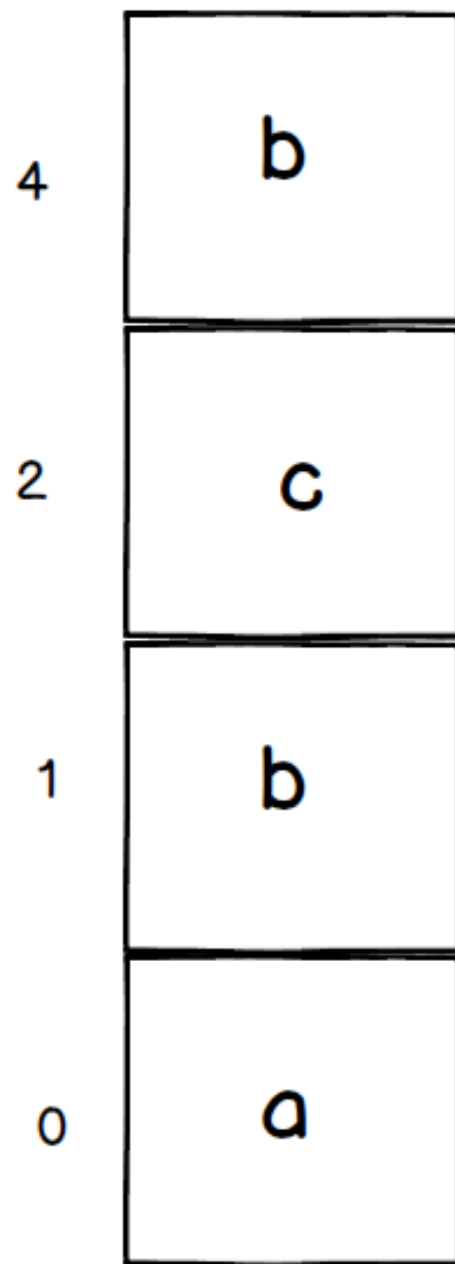


```
int? number = null;  
if (number.HasValue) ...
```



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

Array



char

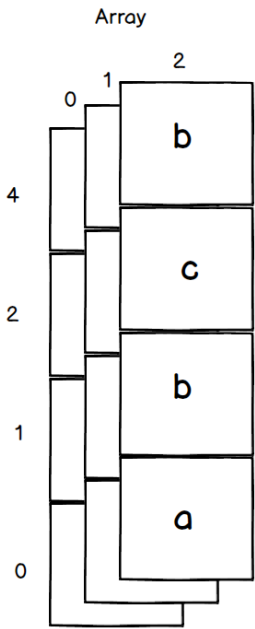
blocks

int

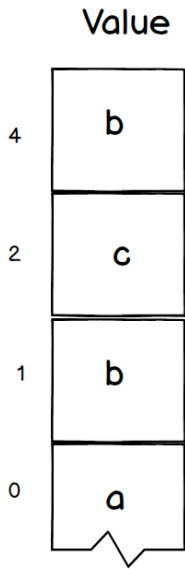


numbers

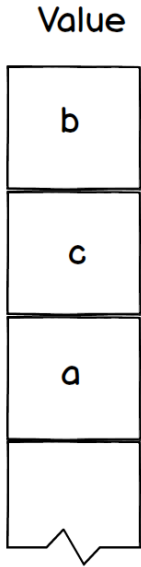
Array vs List



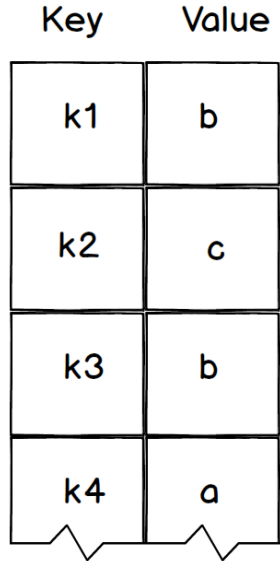
List



HashSet



Dictionary

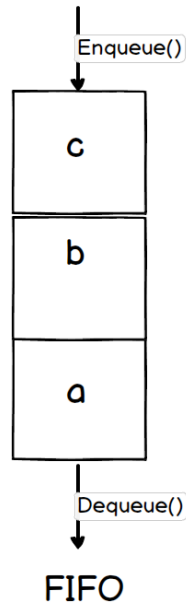


~~k2~~

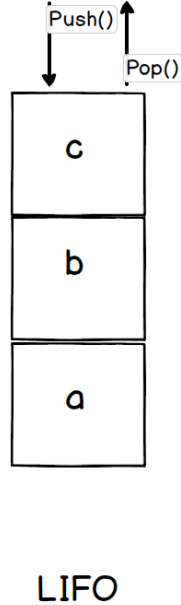
.Keys

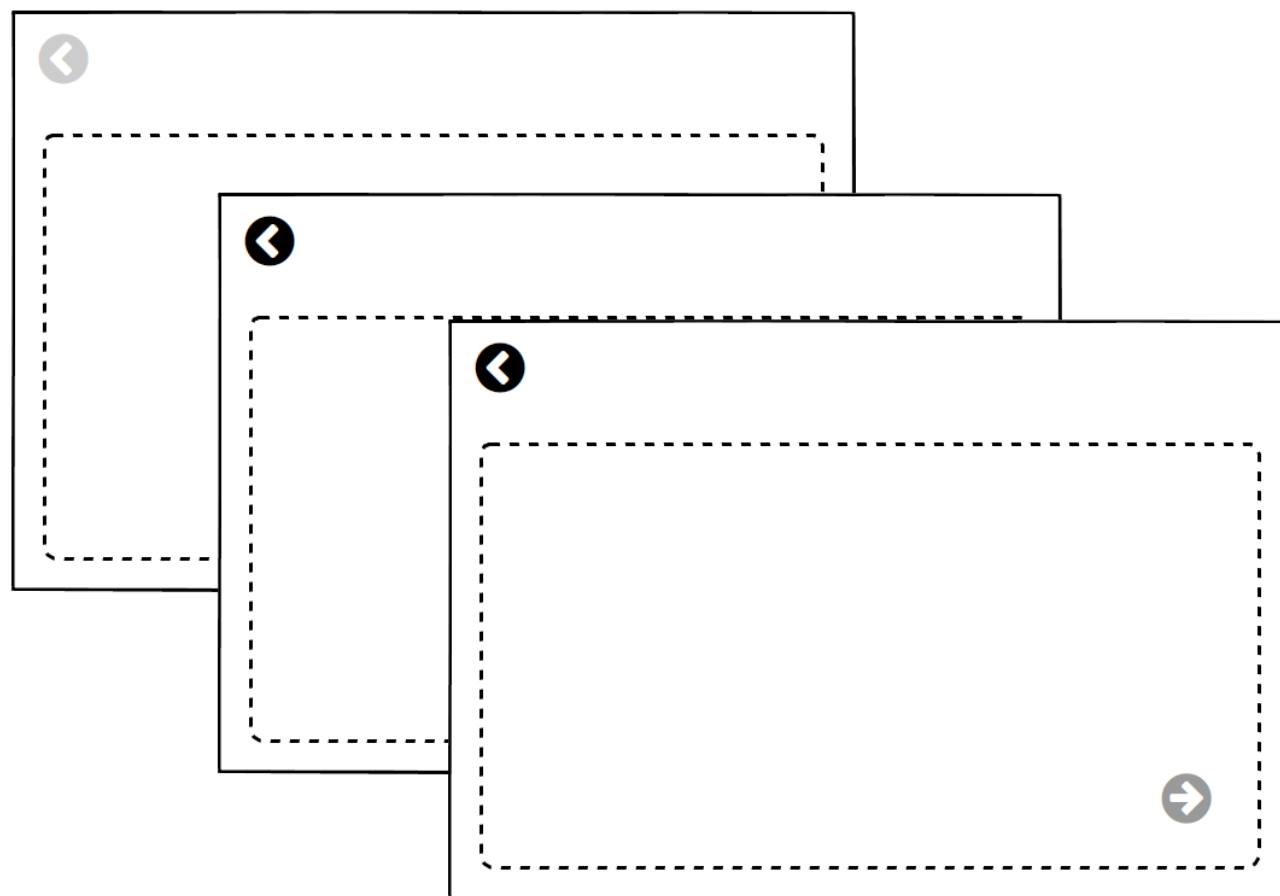
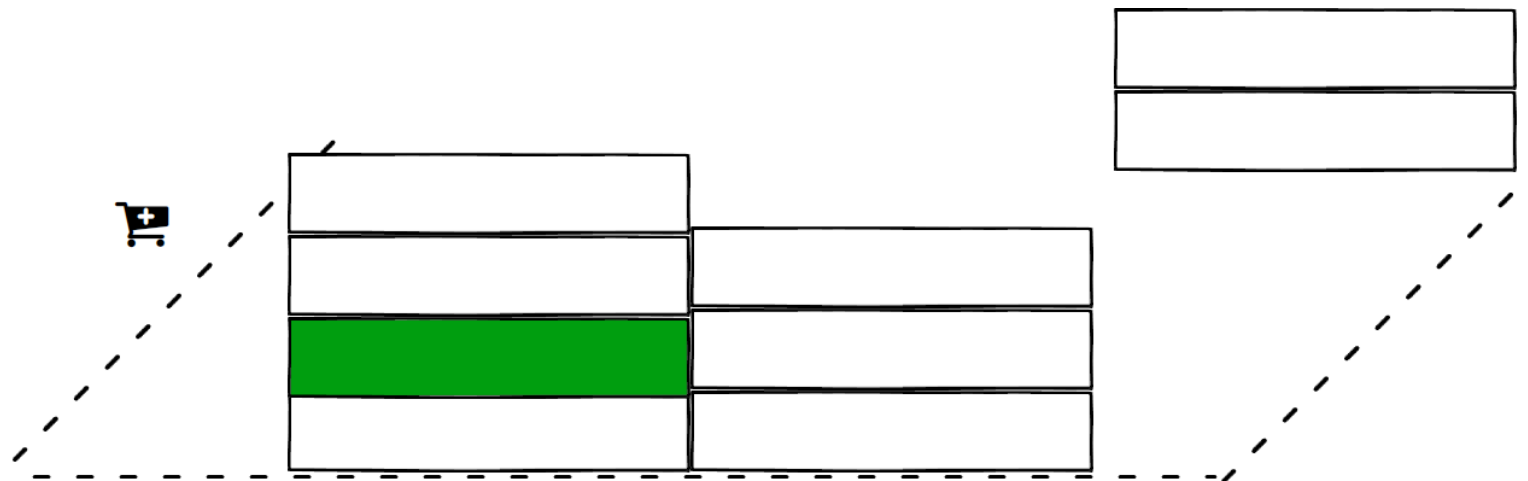
.Values

Queue



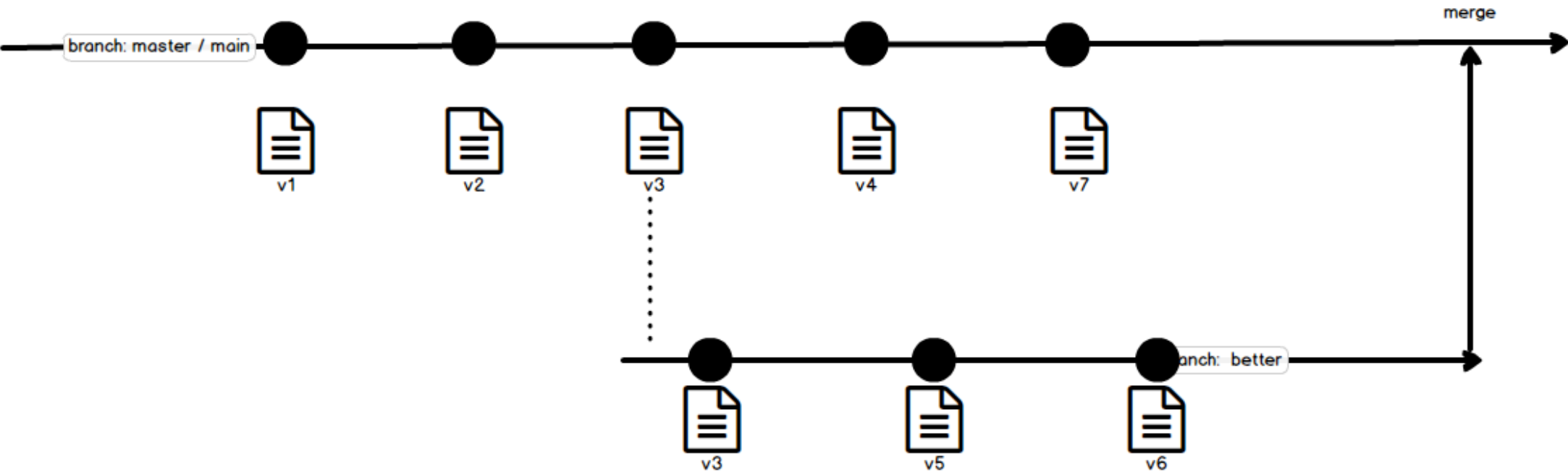
Stack



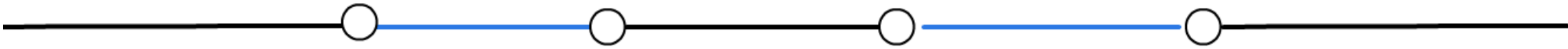


GIT

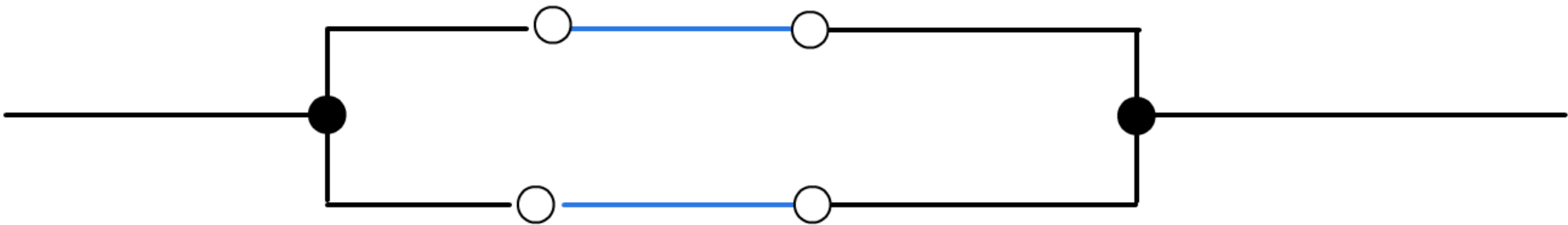
GitHub / GitLab



AND



OR



8

4

2

1

Read

 $=4$

Write

 $=2$

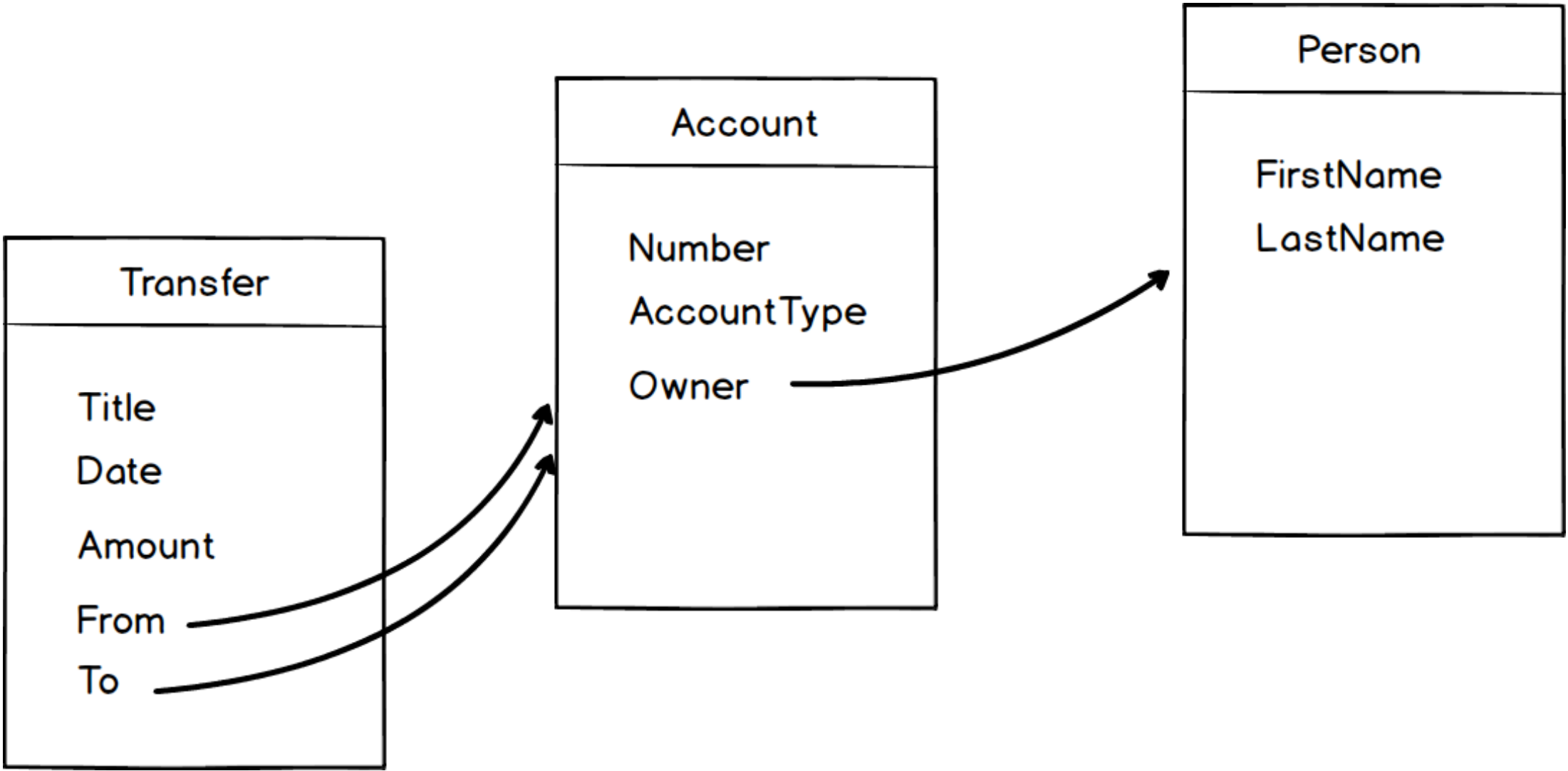
.....

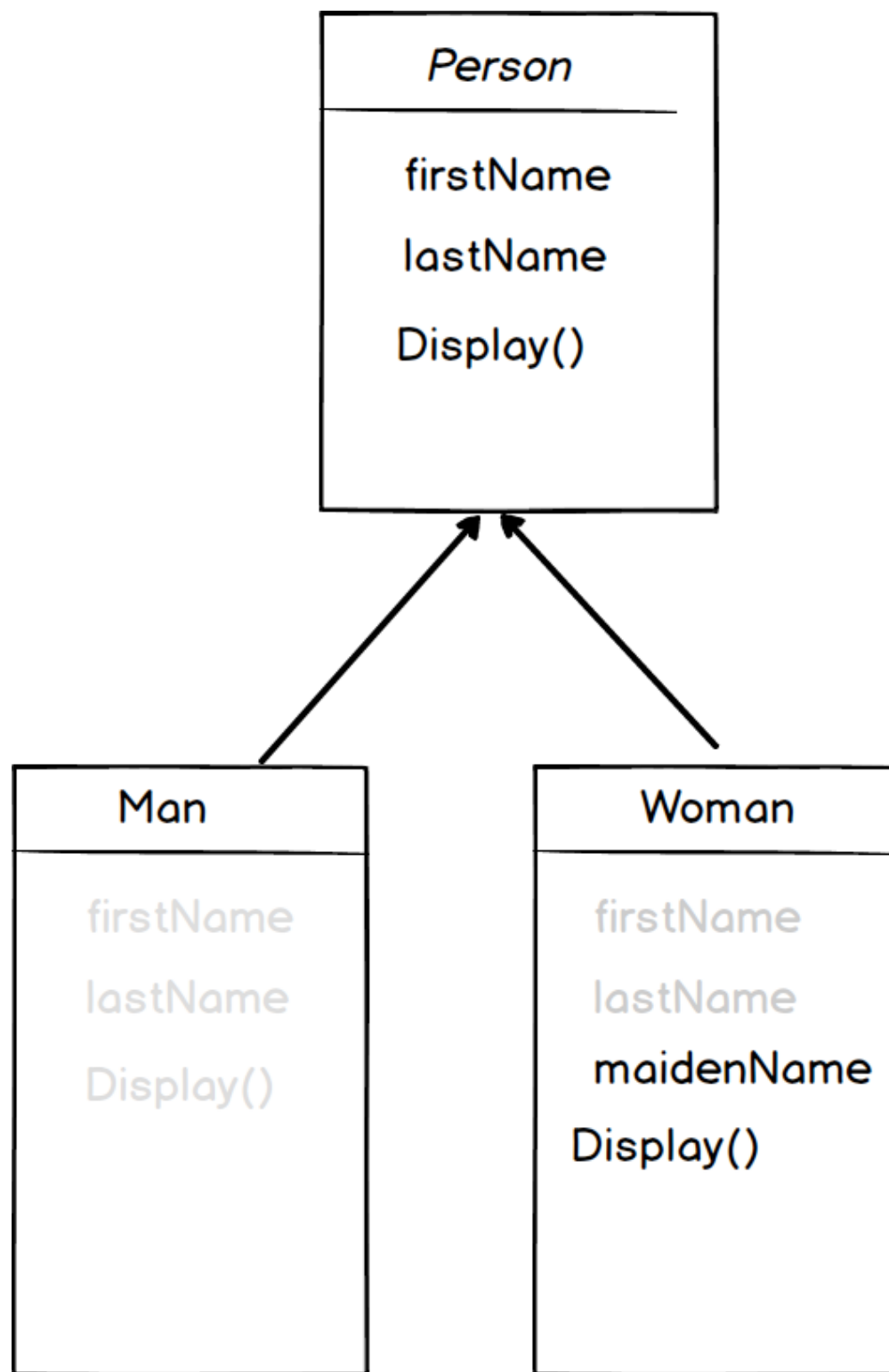
OR

 $=6$

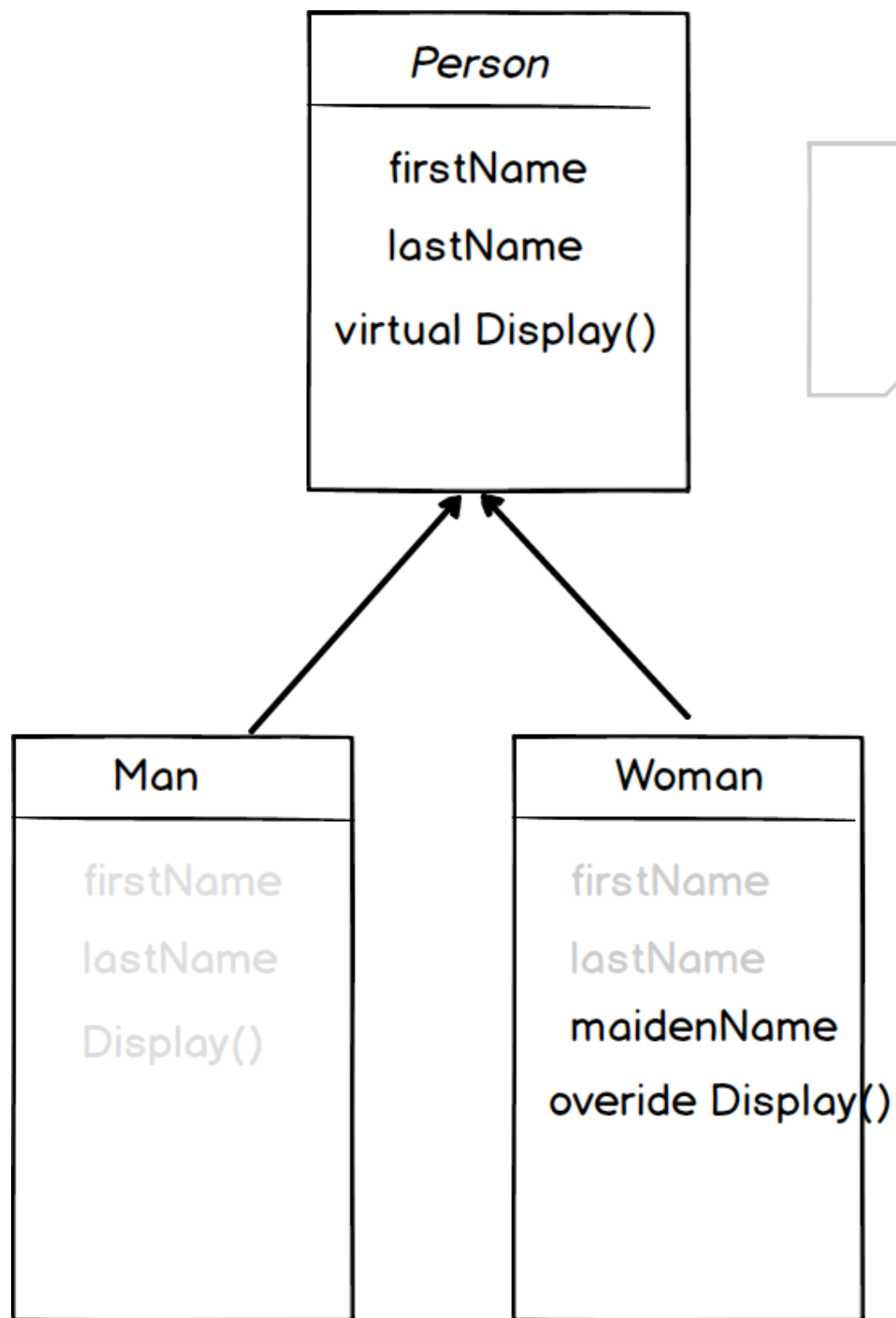
AND

 $== \text{READ}$

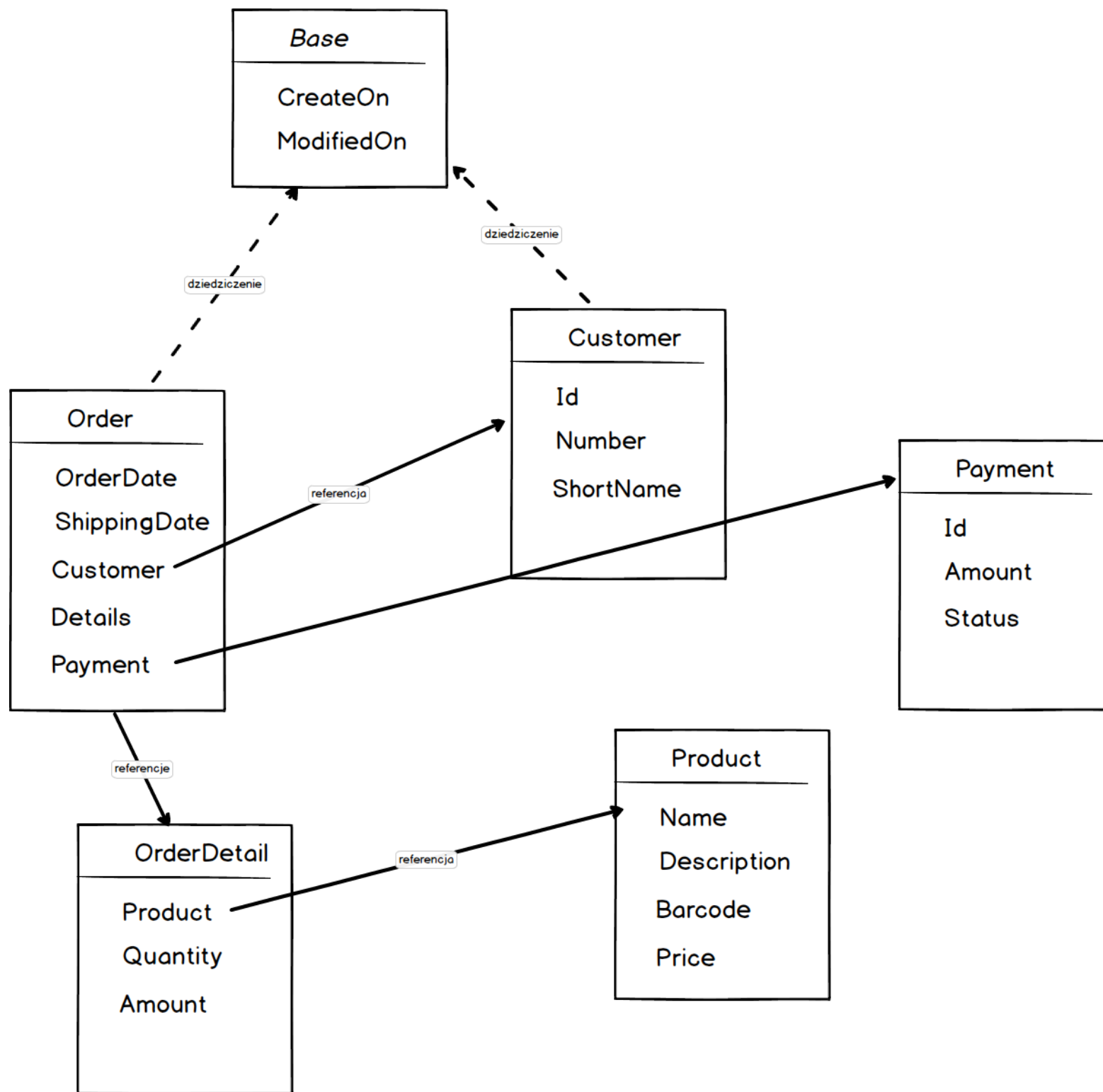


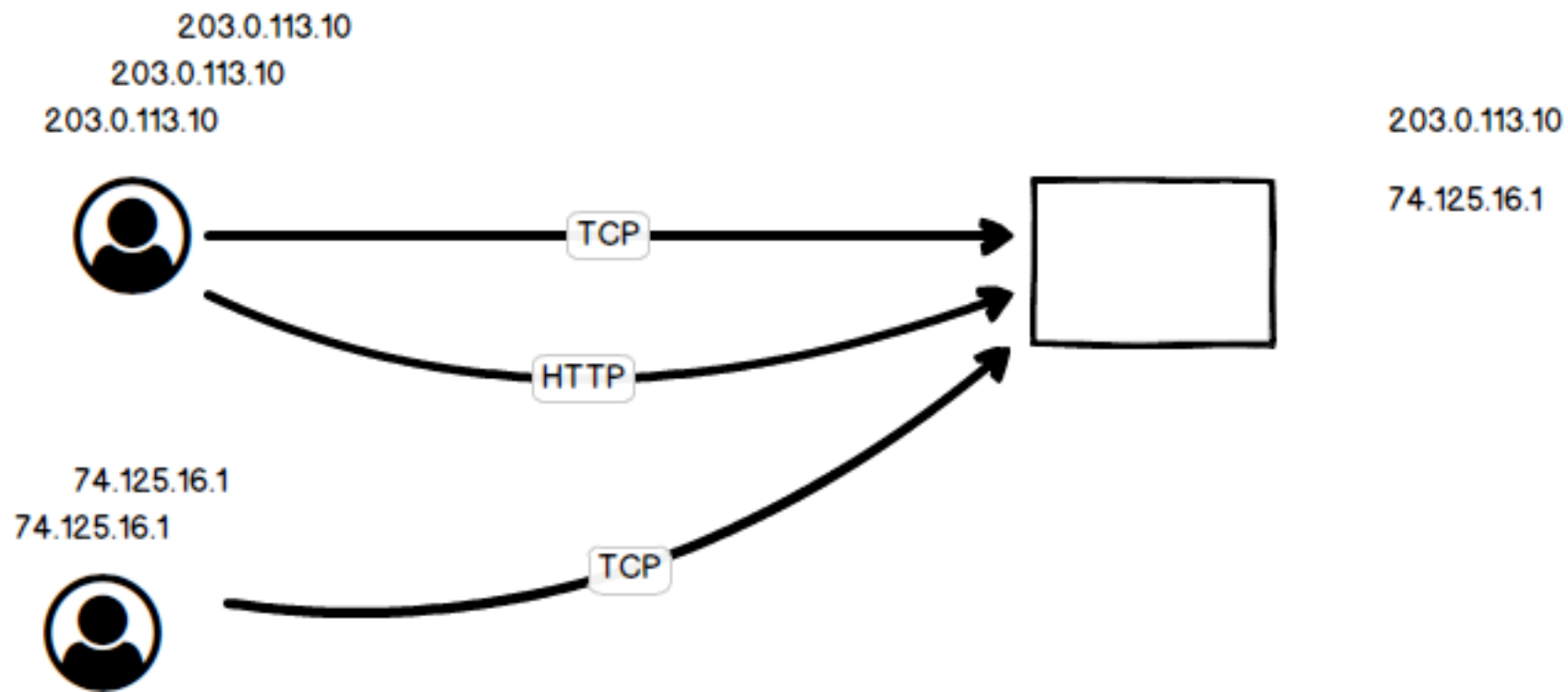


```
Woman person = new Woman();
person.Display();
```

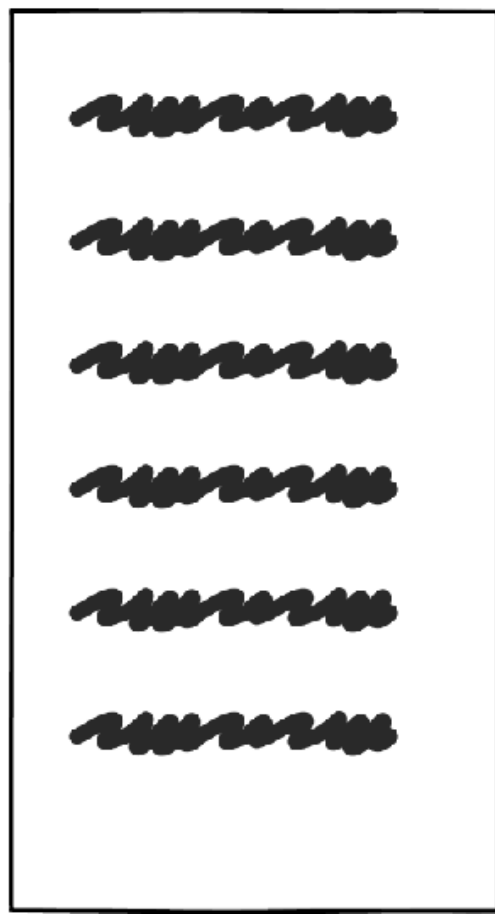


```
Person person = new Woman();
person.Display();
```





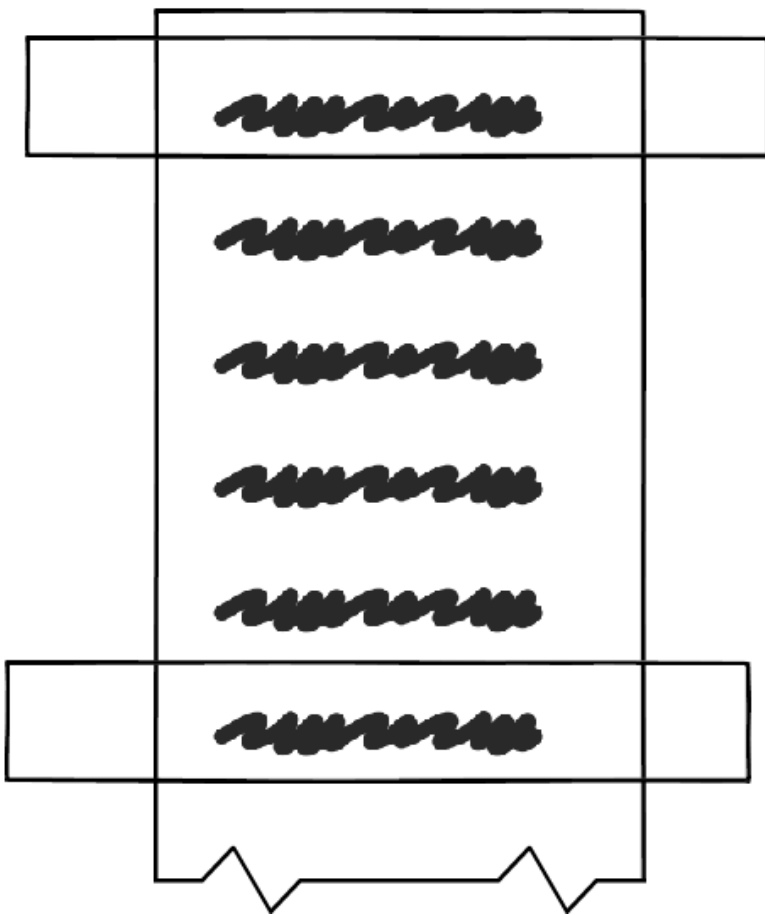

```
string[] lines = File.ReadAllLines();
```



Position

Position

Stream



FileStream

MemoryStream

StreamReader

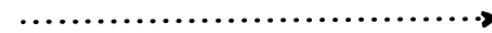
StreamWriter

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

LINQ



interface IEnumerable<T>



interface IEnumerator



Collection<string> items

Add(item)

Contains(item)

Remove(item)



List<string> items

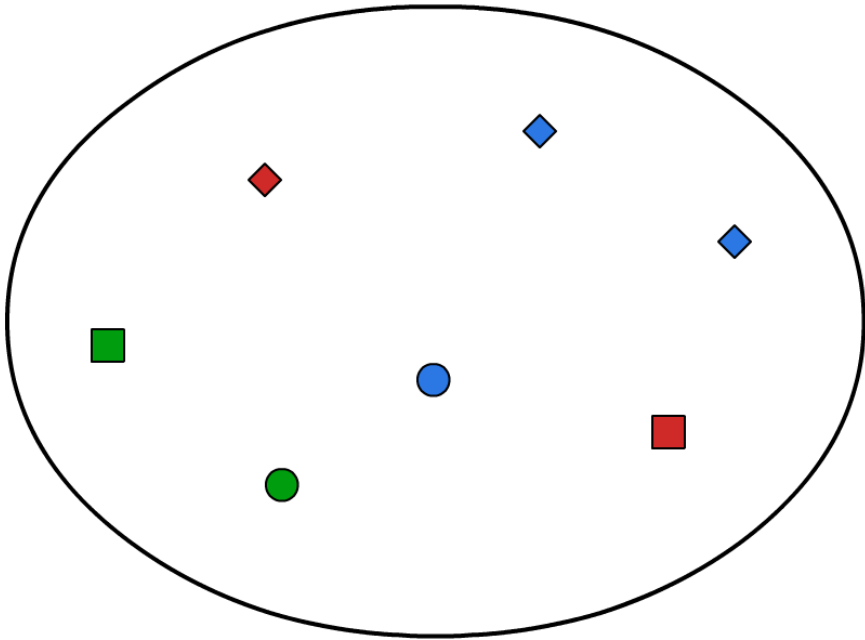
Add(item)

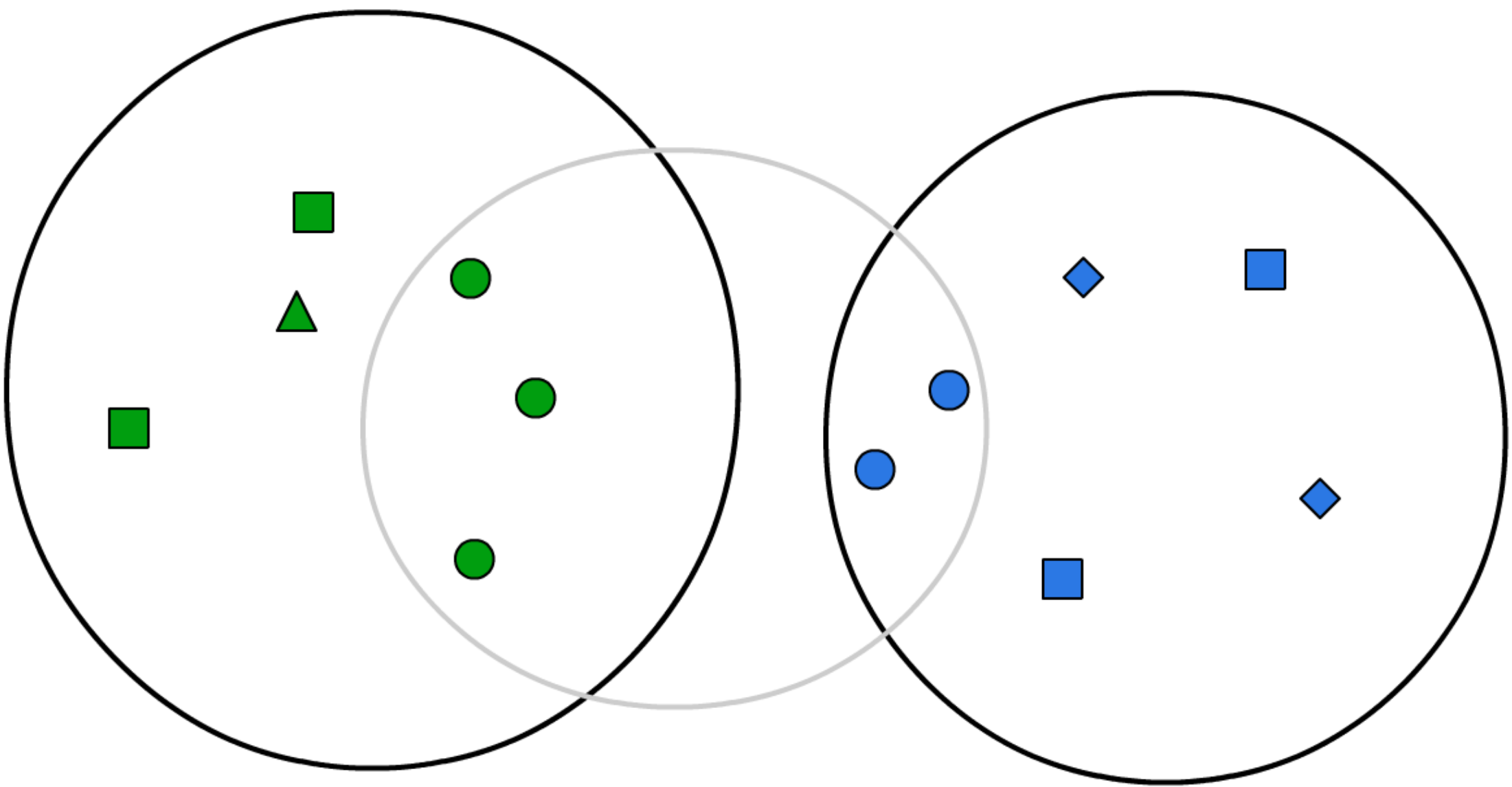
Contains(item)

Remove(item)

[index]

string[] items





firstname	lastname	age	pesel

SELECT

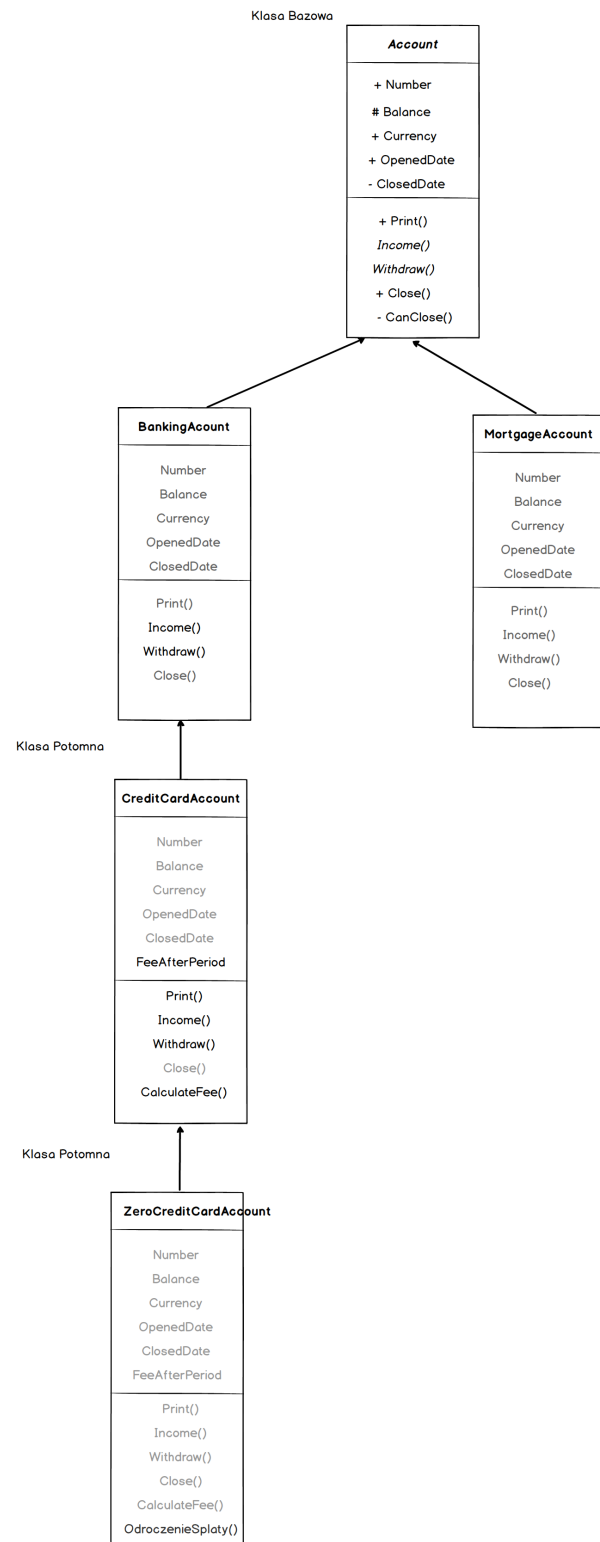
firstname	lastname

WHERE

firstname	lastname	age	pesel

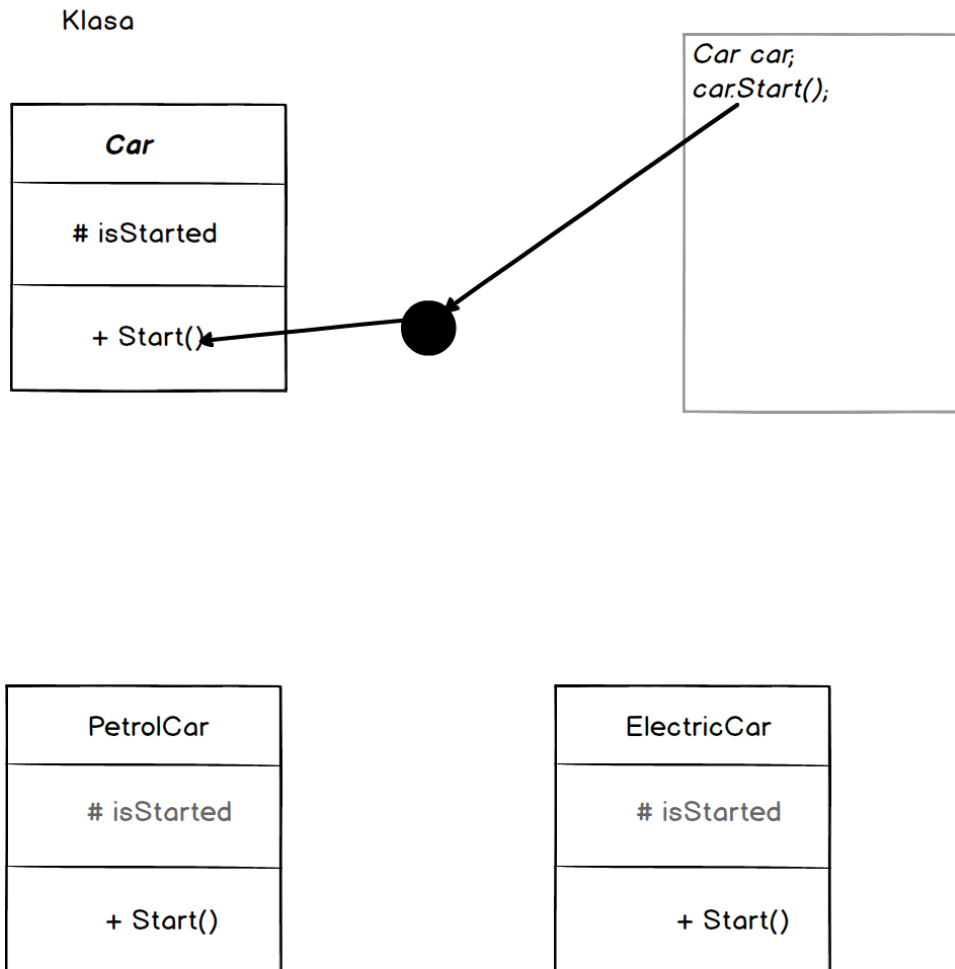
ORDER BY

firstname	lastname	age	pesel



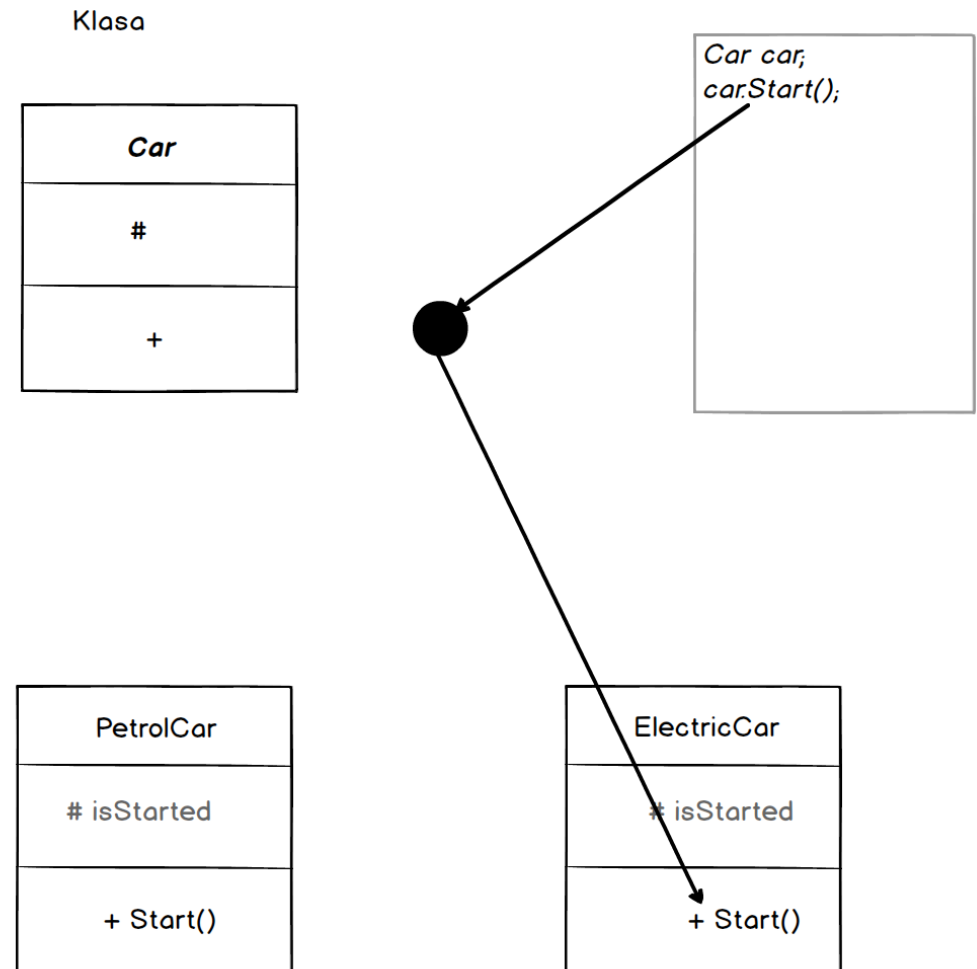
Przysłanianie metody

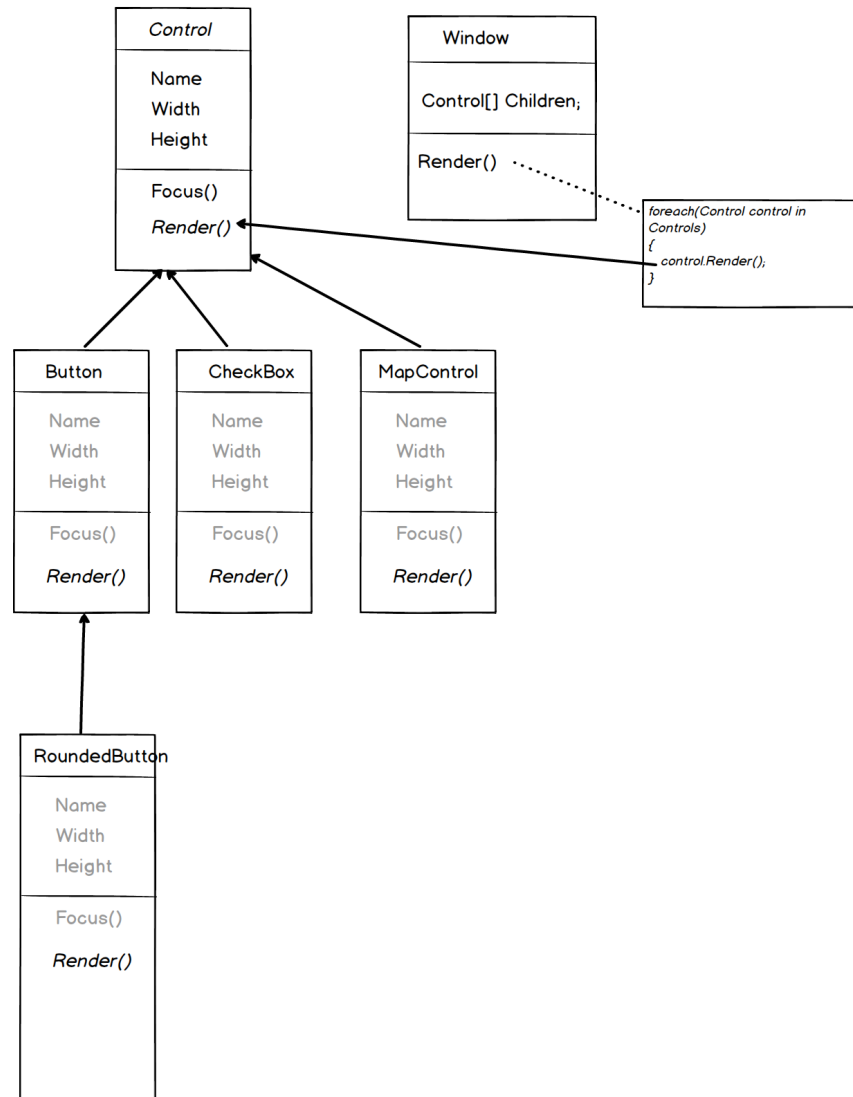
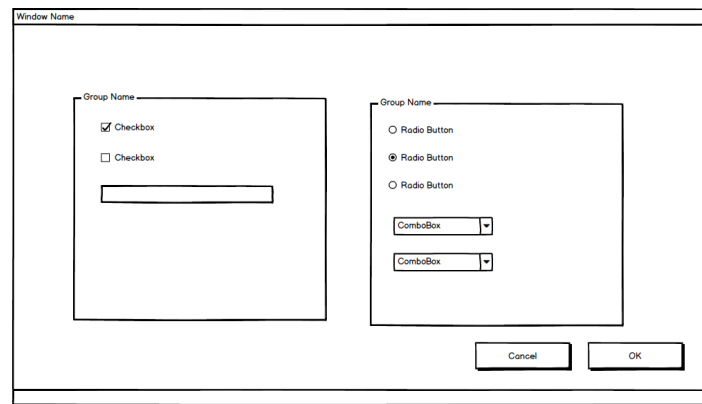
metoda jest ustalana na etapie kompilacji



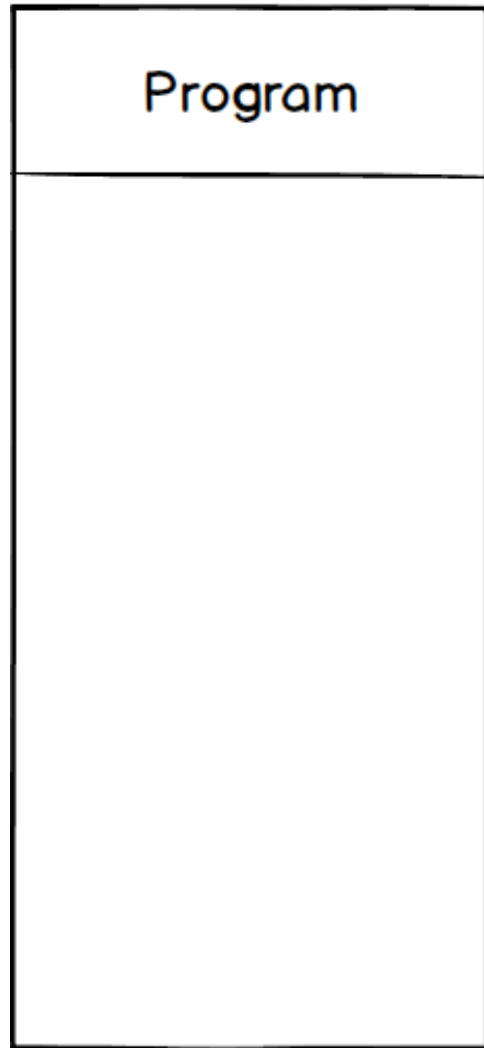
Polimorfizm (virtual - override)

metoda jest ustalana w trakcie działania programu





IBankAccountService



GetAllBankAccounts()



fasada