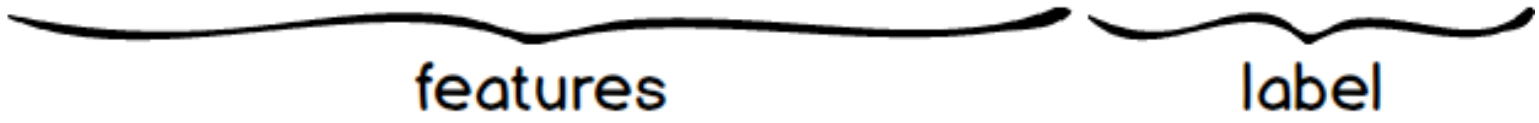
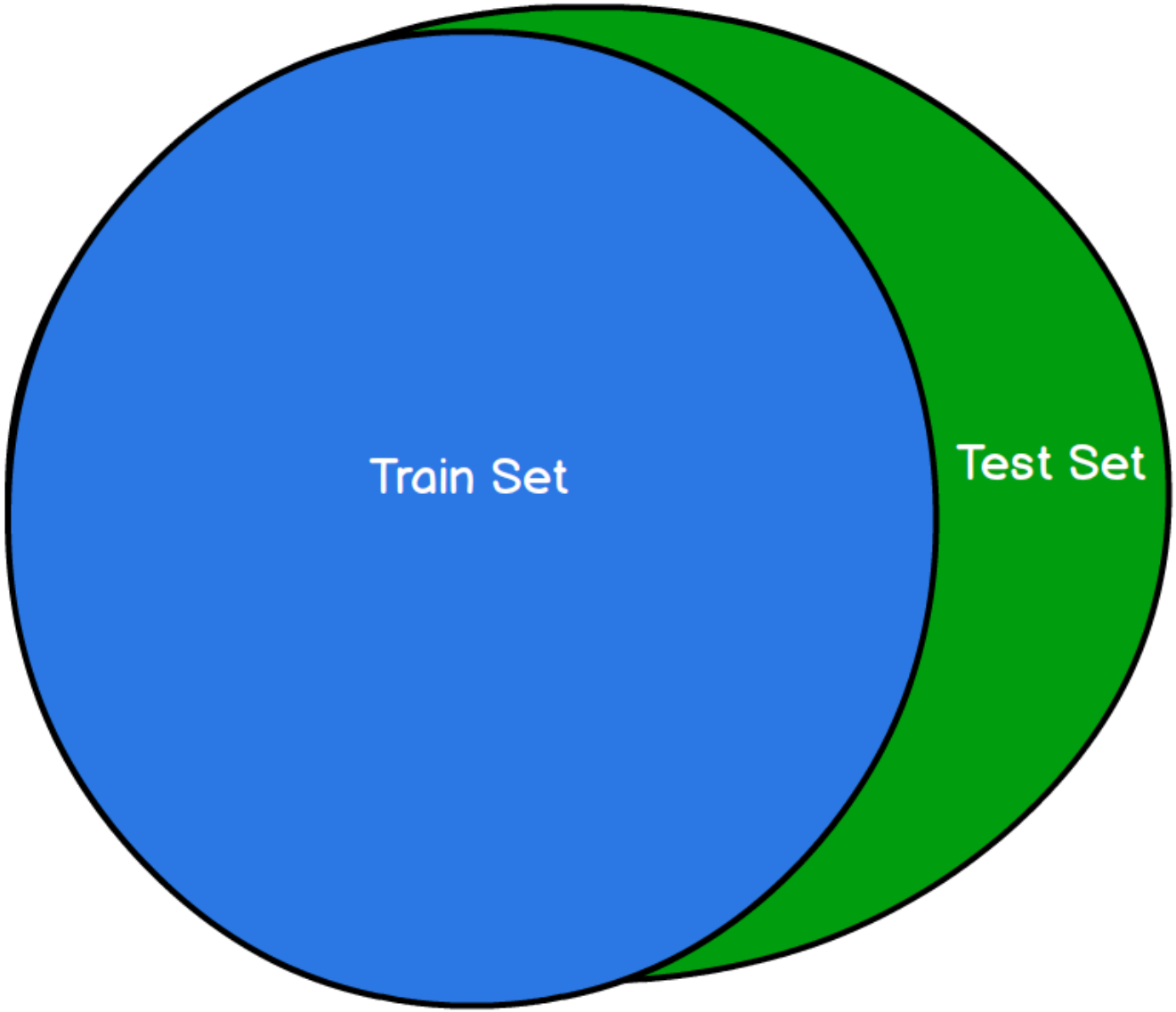
Uczenie nadzorowane (supervised)

Title	Comment	Toxic? (Sentiment)
Title 1	You are rure	1
Title 2	You are clown	1
Title 3	Thank you for...	0
Title 4	Can you descibe me...	0



Zbiór treningowy i testowy



Text
Wow... Loved this place
Crust is not good.
Not tasty and the texture was just nasty.
The selection on the menu was great.

Featurized text
[0.76, 0.65, 0.44, ...]
[0.98, 0.43, 0.54, ...]
[0.35, 0.73, 0.46, ...]
[0.39, 0.00, 0.75, ...]

if

if

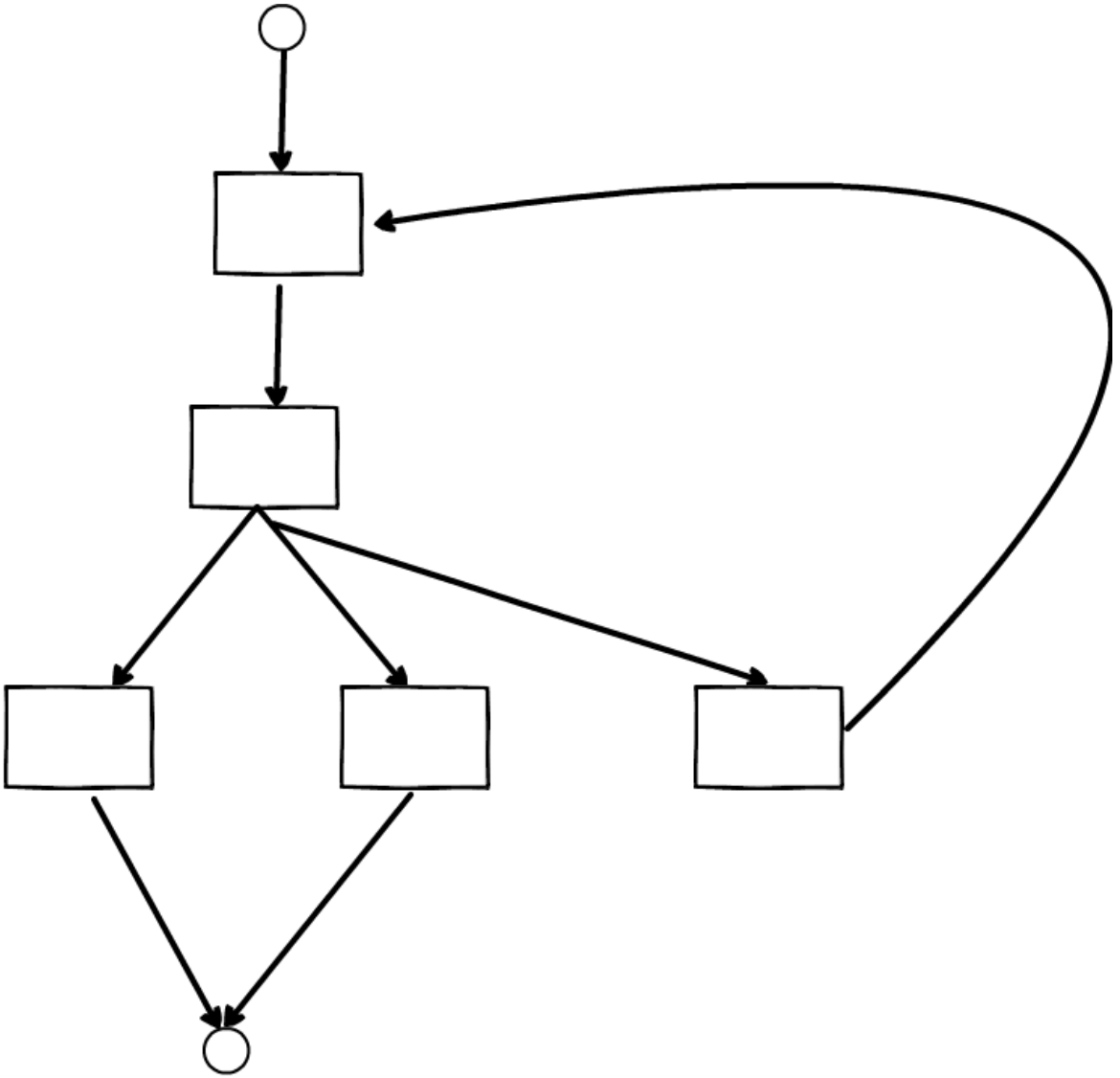
if

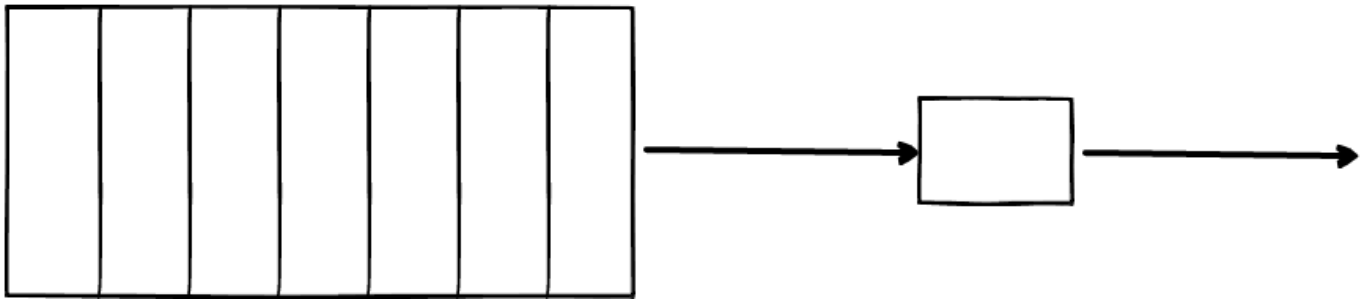
if

if

if

if





Tensorflow.DotnNet

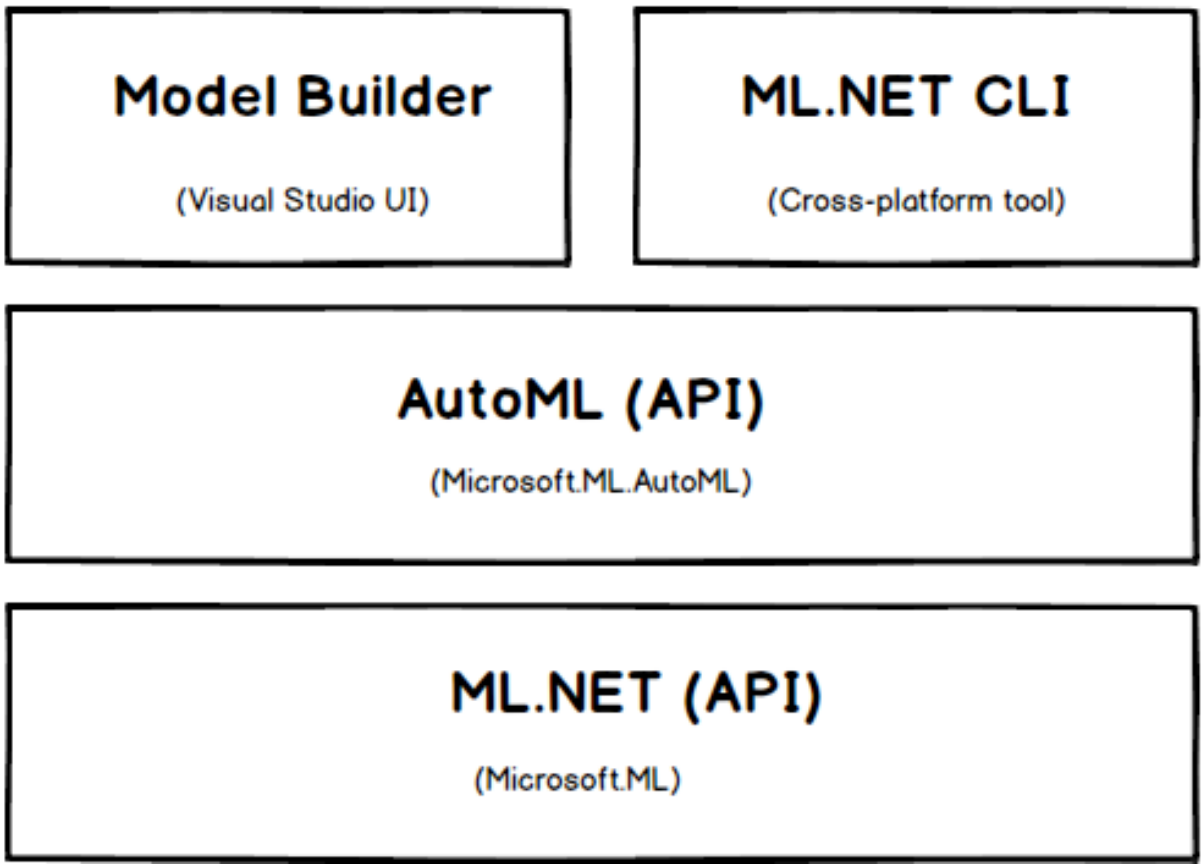
Tensorflow

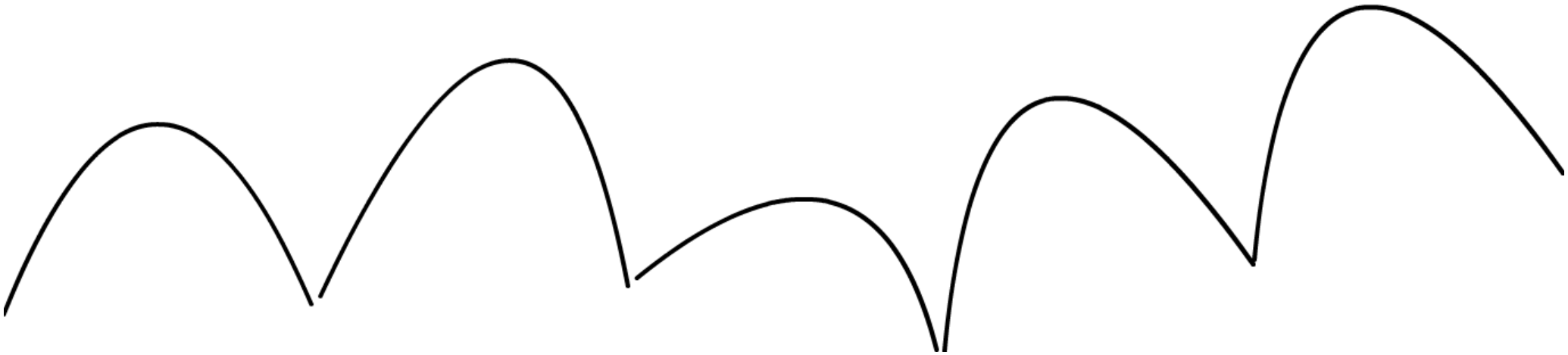
Keras

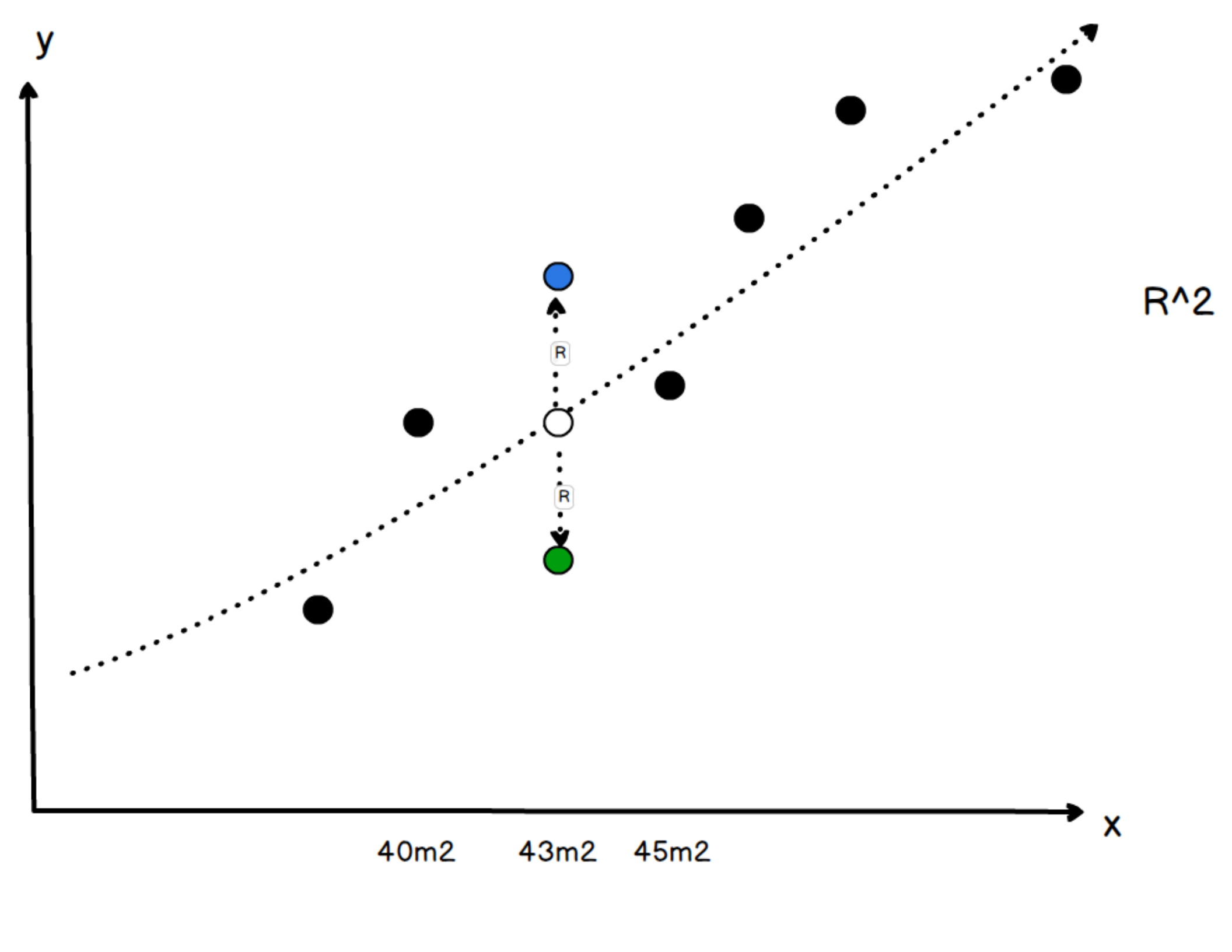
ML.NET

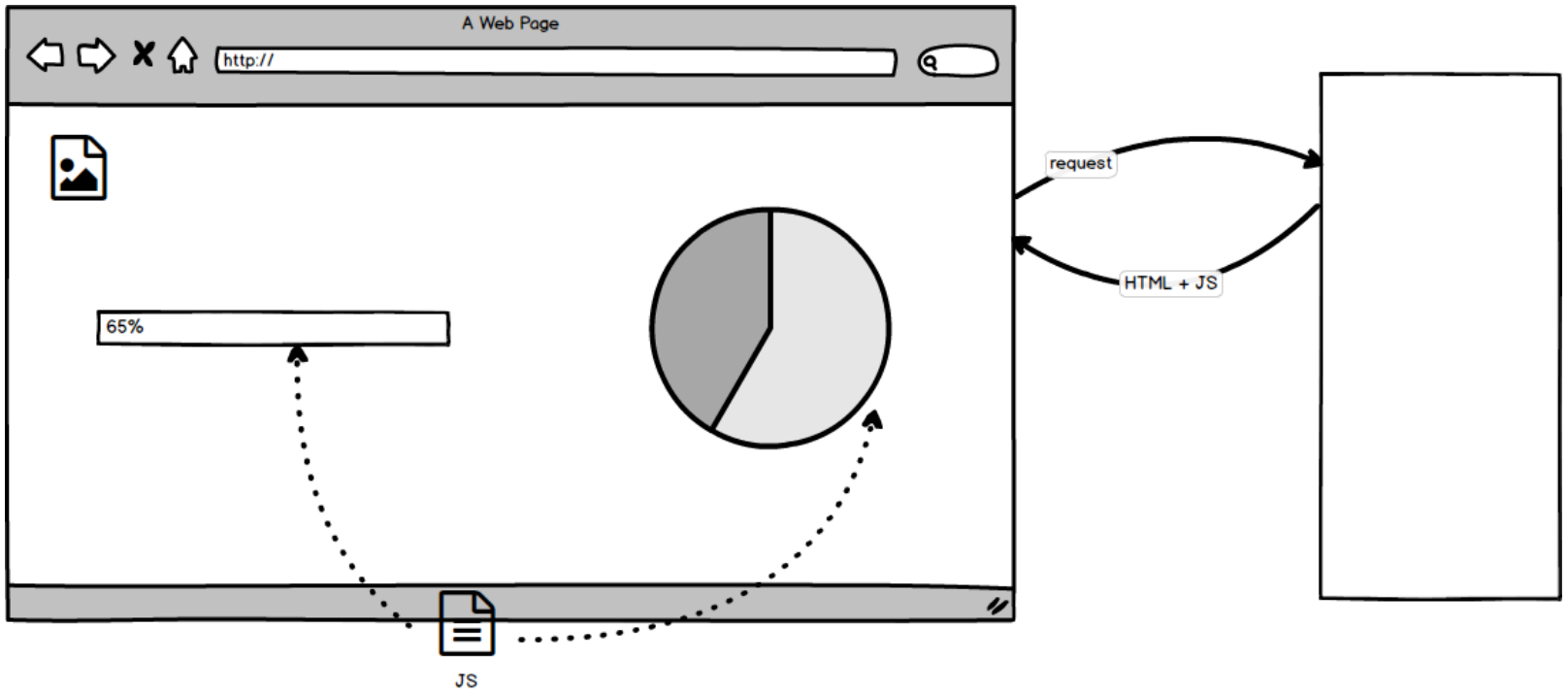
1. framework dla programistów .NET
2. Wysoka wydajność
3. Łatwość wdrożenie

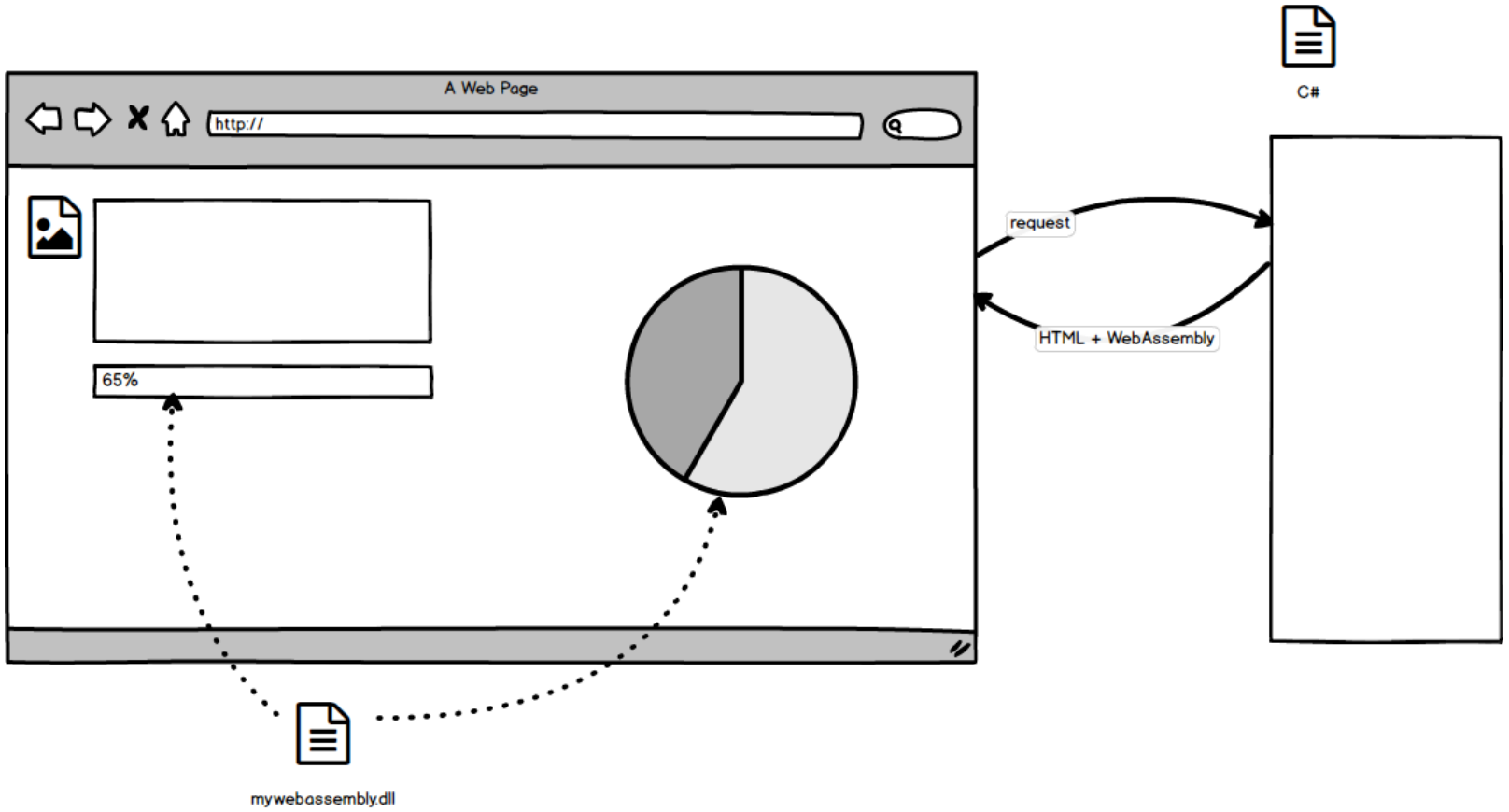
ML.NET

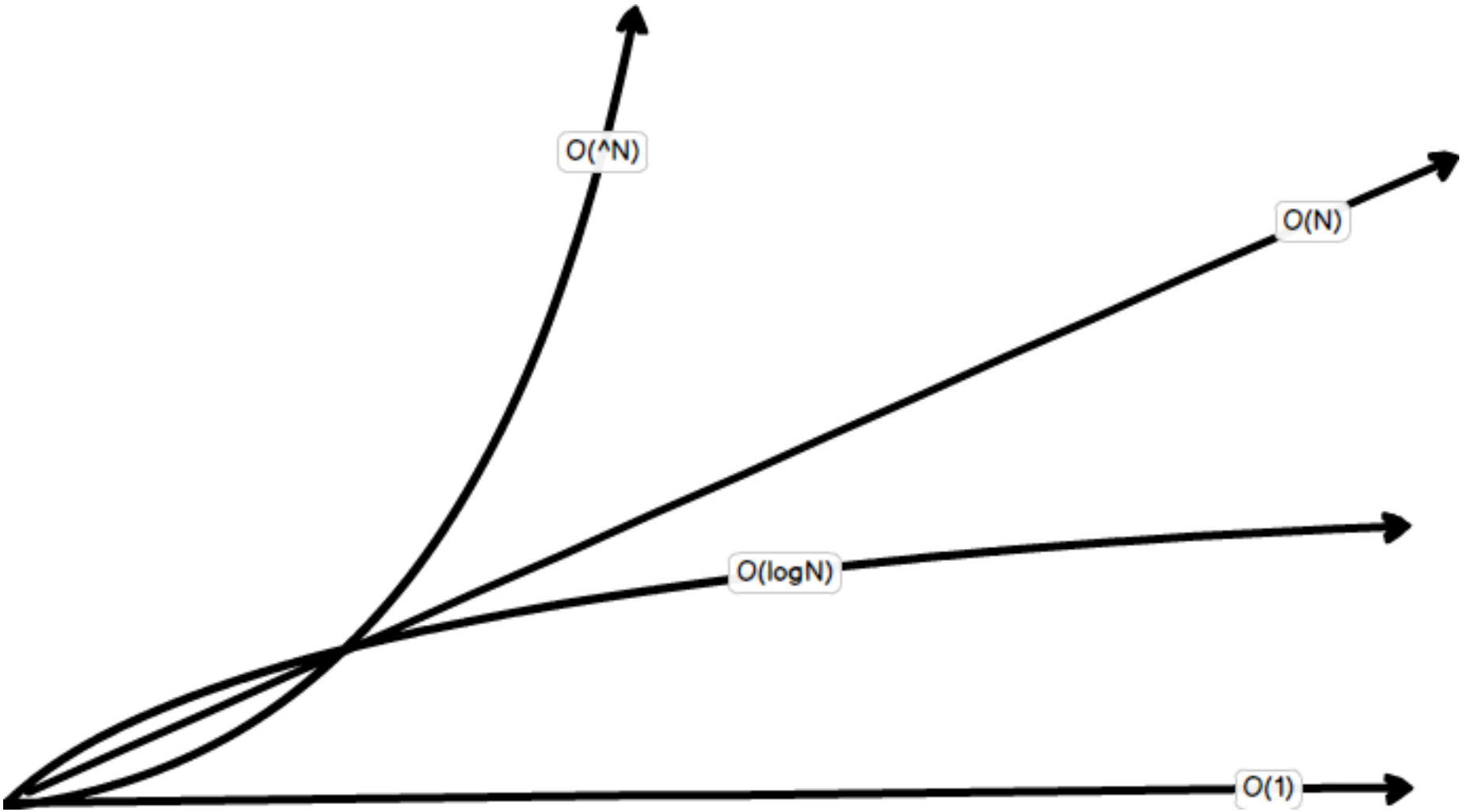

Model Builder
(Visual Studio UI)
ML.NET CLI
(Cross-platform tool)
AutoML (API)
(Microsoft.ML.AutoML)
ML.NET (API)
(Microsoft.ML)

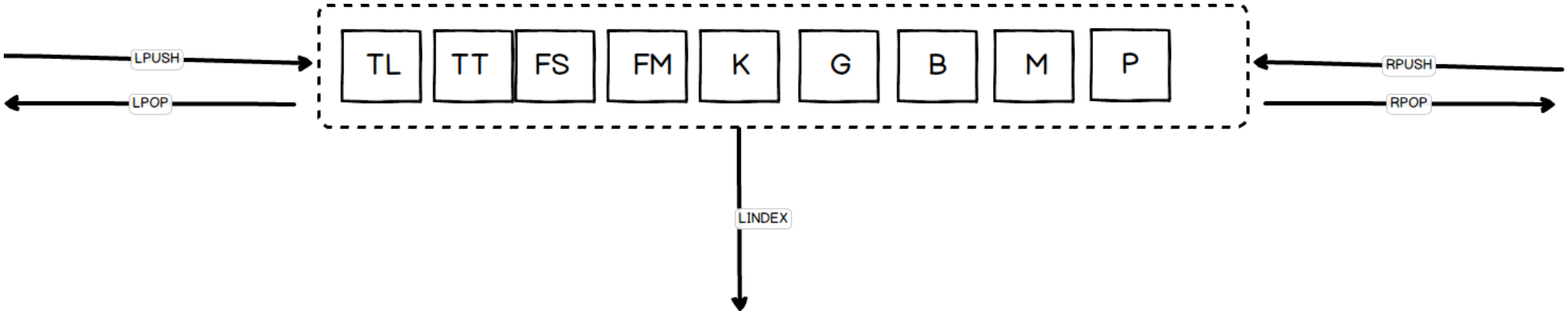


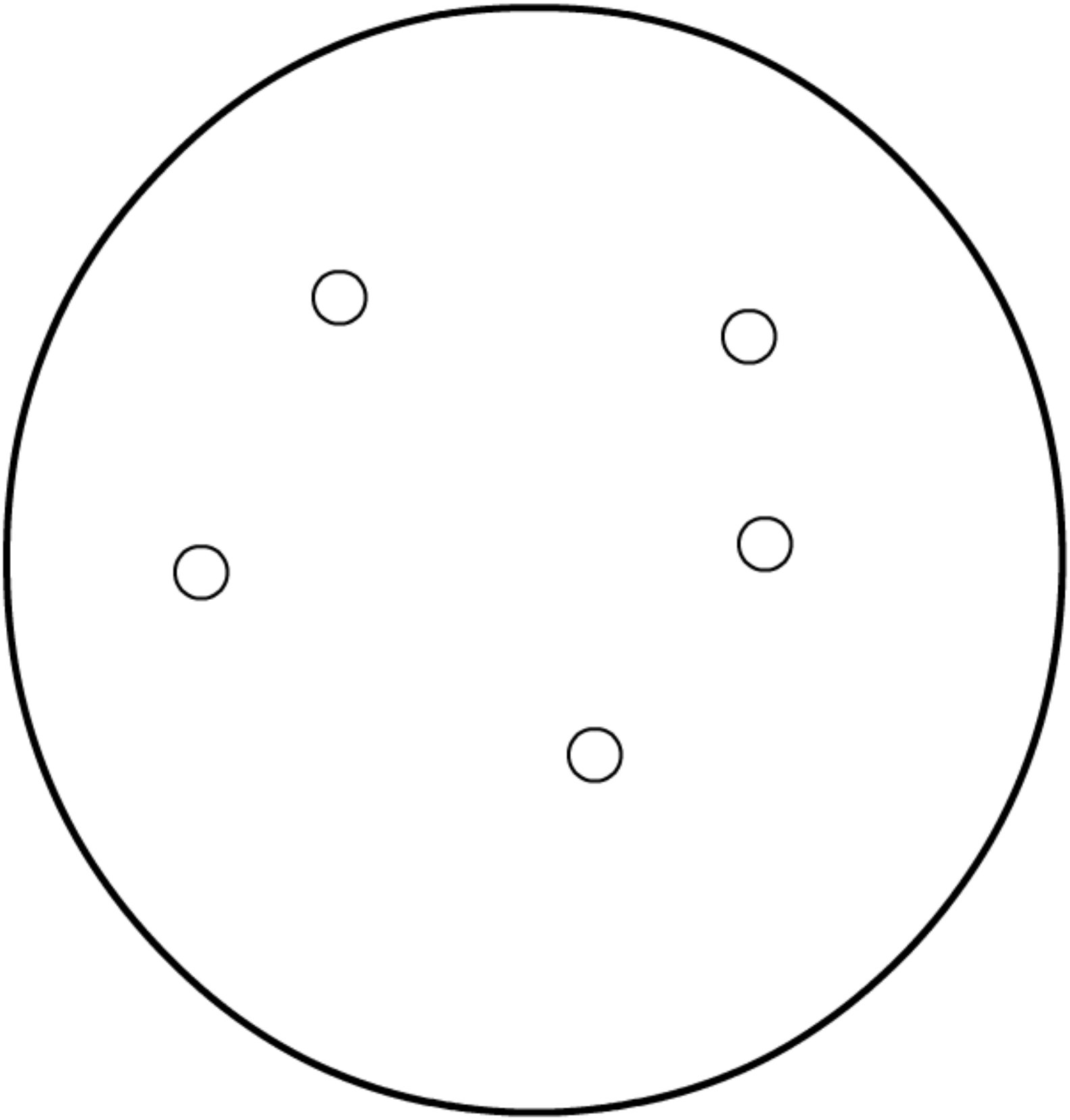

y
R^2
R
R
x
40m2
43m2
45m2

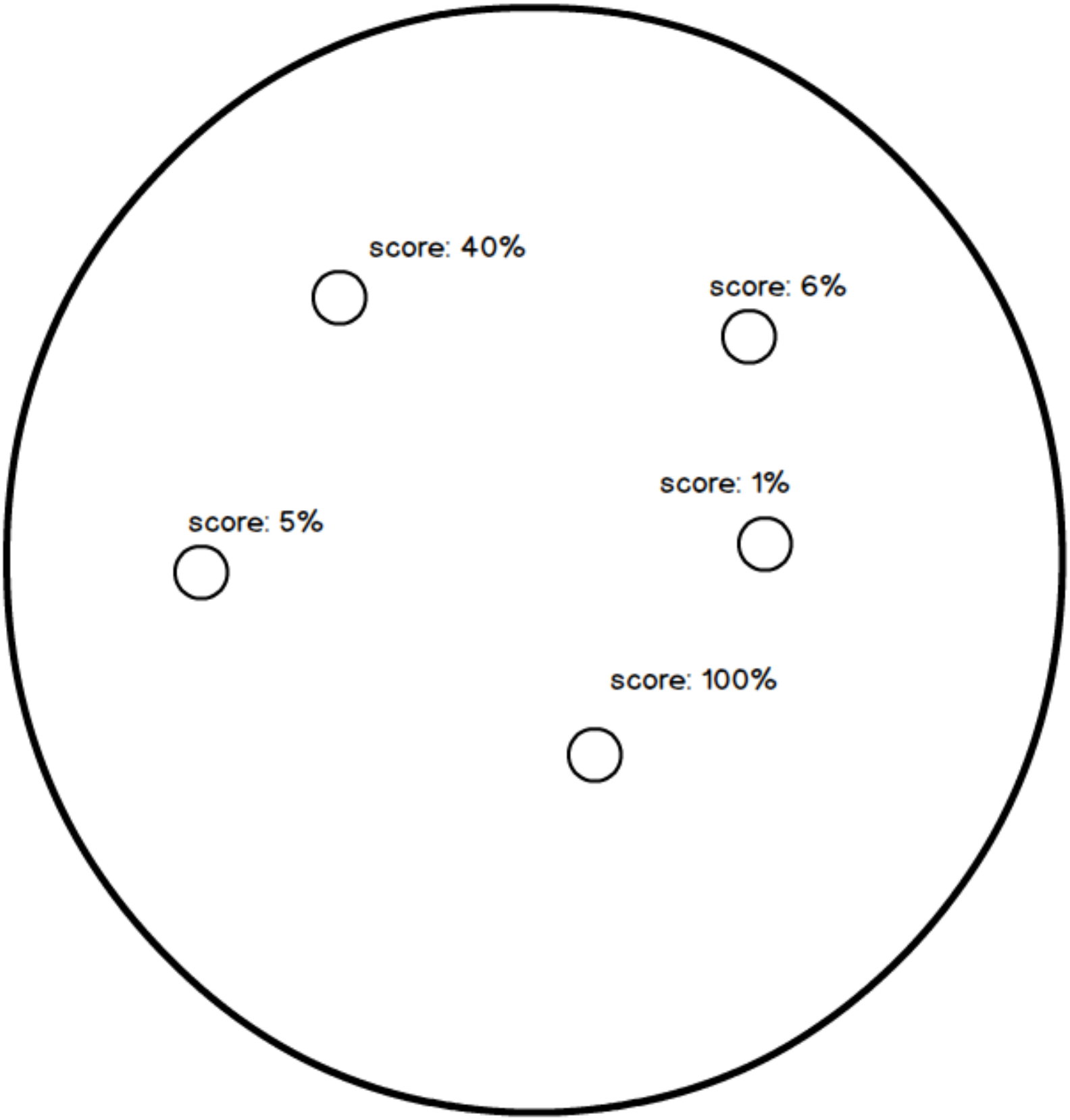

A Web Page
http://
65%
request
HTML + JS
JS

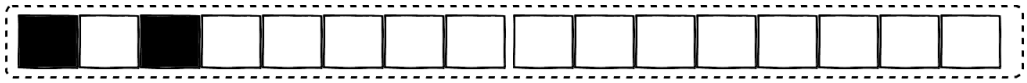

A Web Page
http://
65%
request
HTML + WebAssembly
C#
mywebassembly.dll

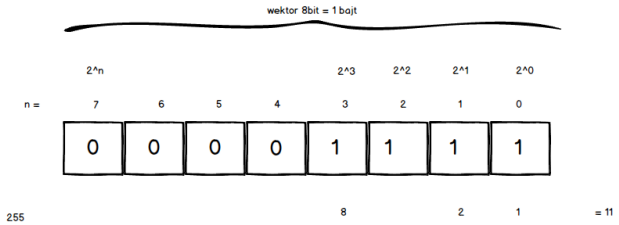

O(^N)
O(N)
O(logN)
O(1)

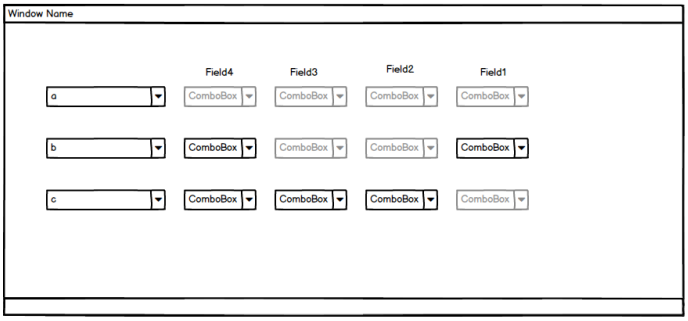

LPUSH
LPOP
TL
TT
FS
FM
K
G
B
M
P
RPUSH
RPOP
LINDEX

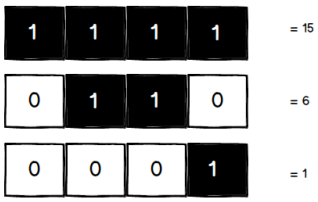



score: 40%
score: 6%
score: 1%
score: 5%
score: 100%









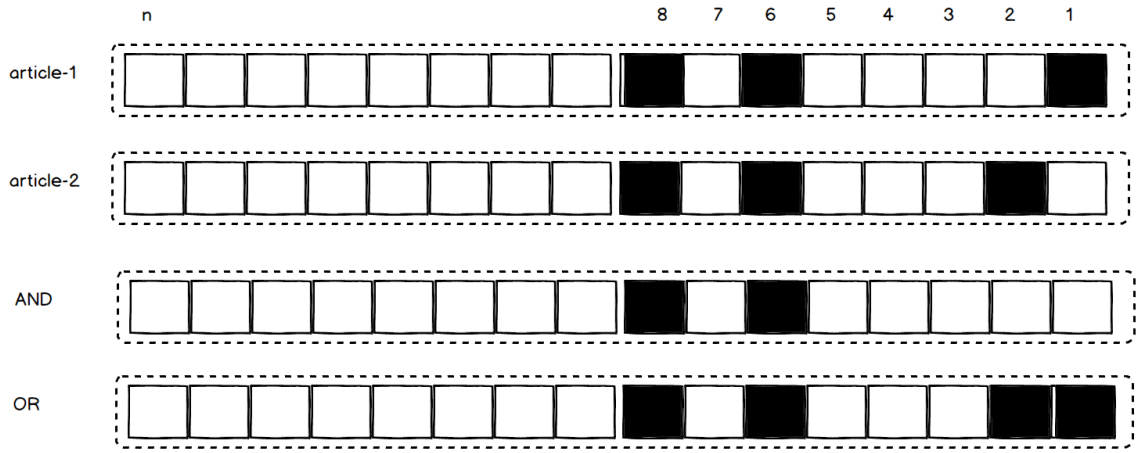

```
Blocking  blocking = Blocking.Field2 | Blocking.Field3

int value = (int) blocking;
```

```
[Flags]
enum Blocking
{
    Field1 = 1,
    Field2 = 2,
    Field3 = 4,
    Field4 = 8
```

---

users

ID	(job title)	Age	Nickname	Employee
1	acomo Guilizzoni Founder & CEO	40	Peldi	◉
2	Marco Botton Tuttofare	38		☑
6	Mariah Maclachlan Better Half	41	Patata	⊟
7		:)	Val	☑



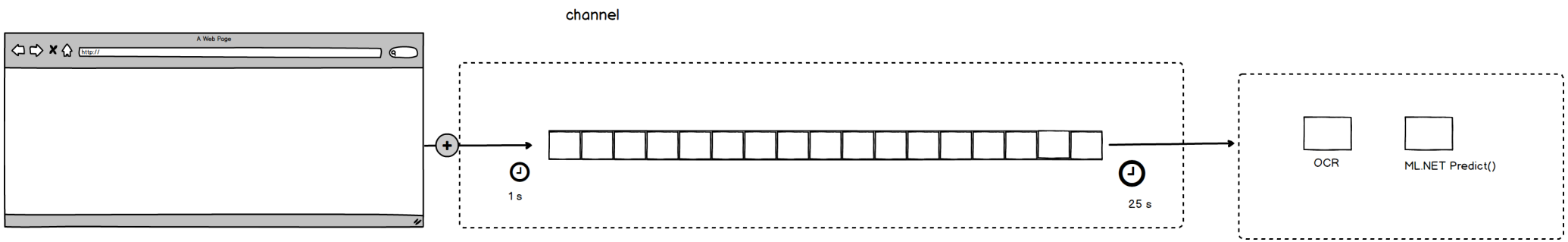
NOT

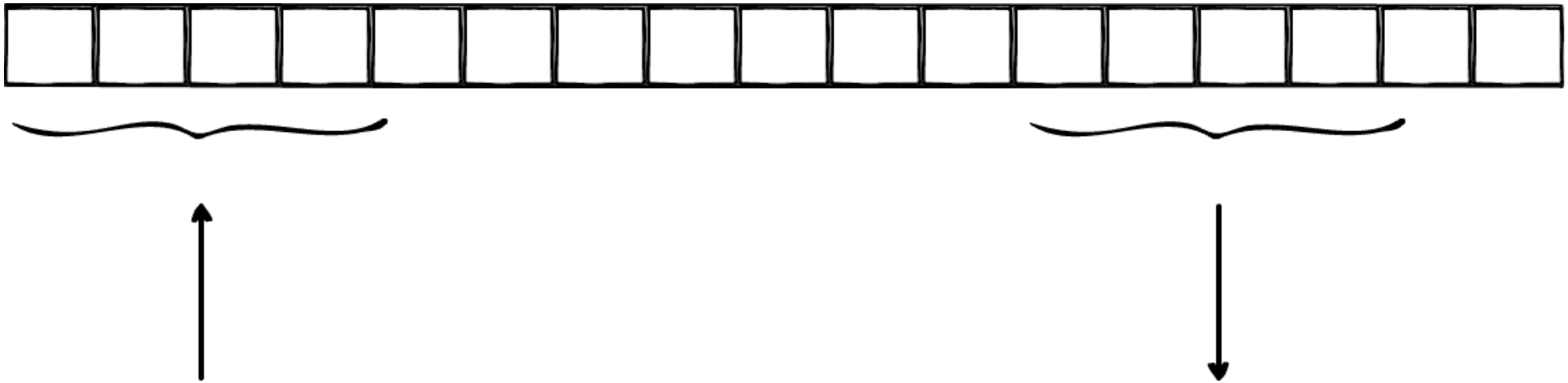
AND

OR

XOR

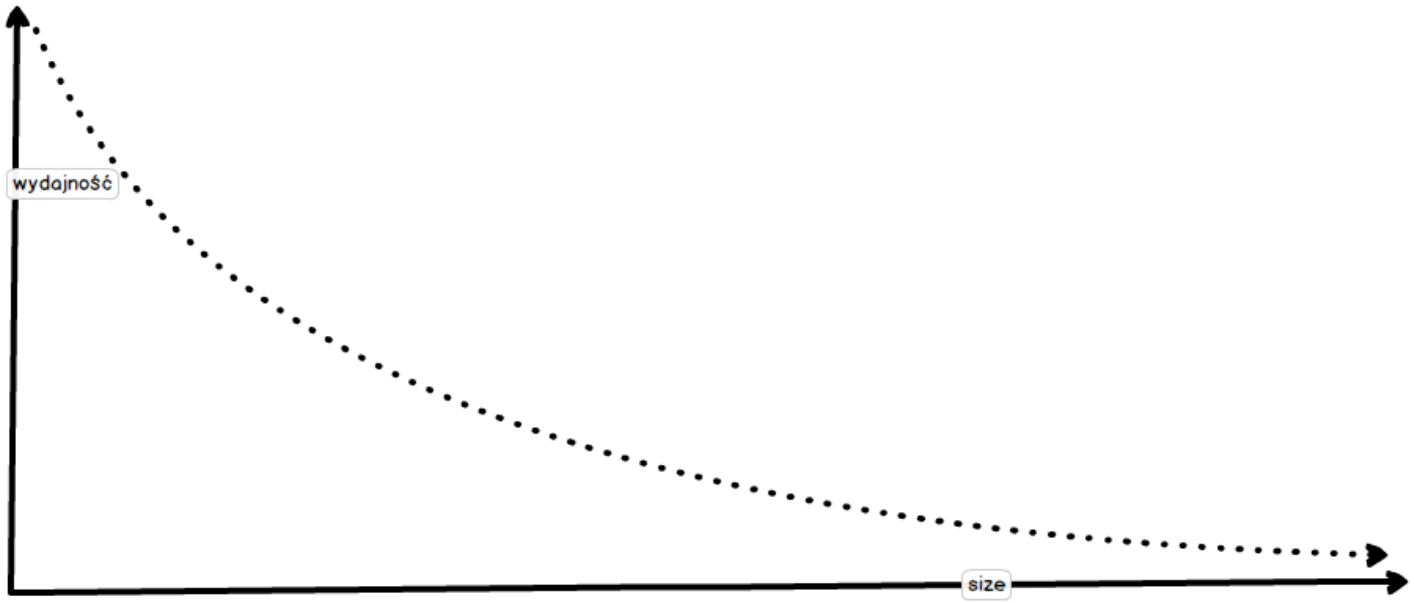
Geography


channel
A Web Page
http://
1 s
25 s
OCR
ML.NET Predict()



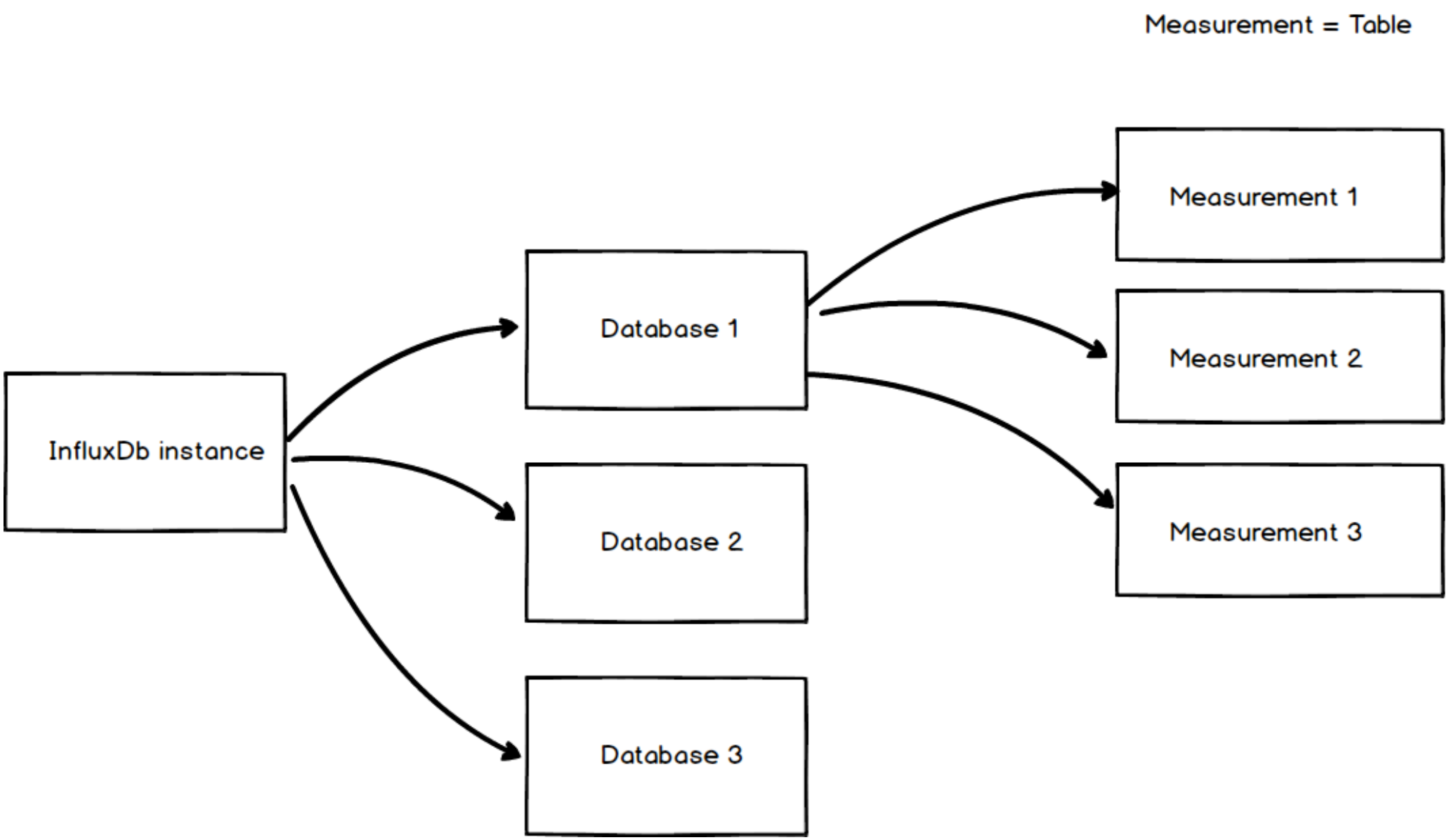
InfluxDb

Time Series Database

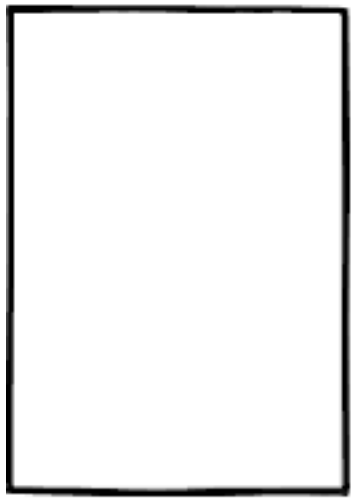


Name (job title)	Age	Nickname	Employee
Giacomo Guilizzoni Founder & CEO	40	Peldi	◉
Marco Botton Tuttofare	38		☑
Mariah Maclachlan Better Half	41	Patata	⊟
Valerie Liberty Head Chef	:)	Val	☑
Data Grid Docs			☐

Region	Area	Sensor	Temp	Preasure	Humadity	Time

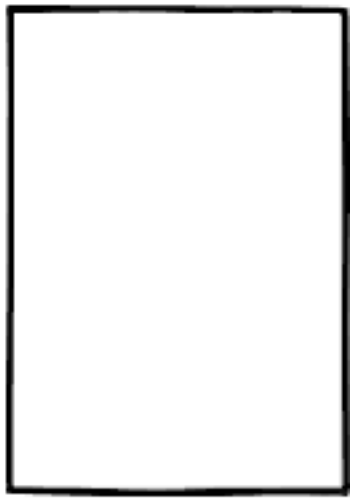

Measurement = Table
InfluxDb instance
Database 1
Database 2
Database 3
Measurement 1
Measurement 2
Measurement 3

1.8

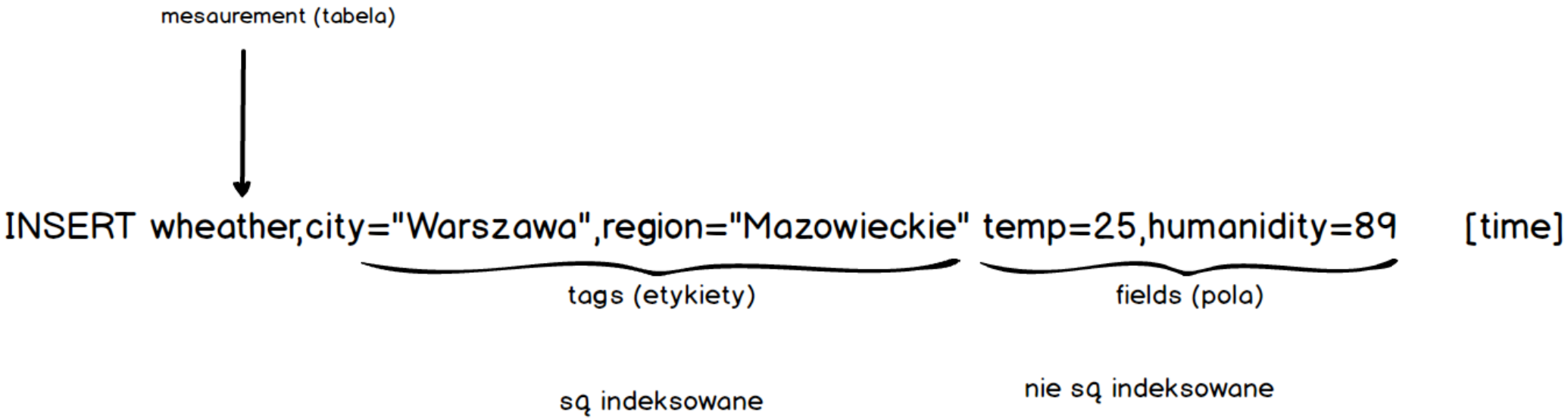


InfluxQL

2.x

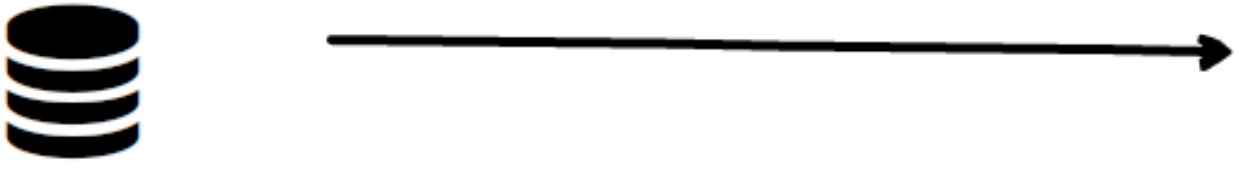


Flux


mesaurement (tabela)
INSERT wheather,city="Warszawa",region="Mazowieckie" temp=25,humanidity=89 [time]
tags (etykiety)
fields (pola)
są indeksowane
nie są indeksowane

A

B

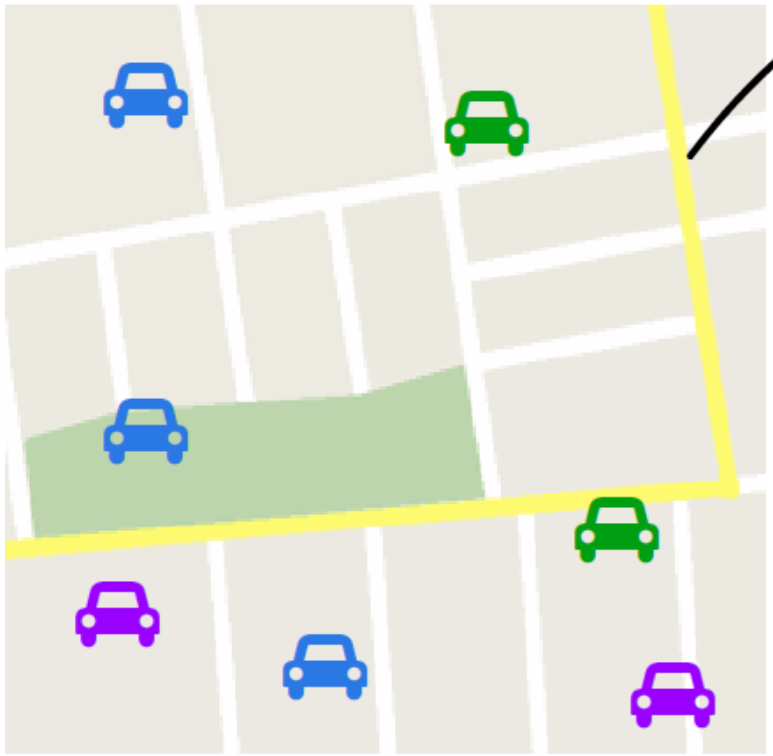


SQLServer source

SQL Server target

Name (job title)	Age	Nickname	Employee
Giacomo Guilizzoni Founder & CEO	40	Peldi	◉
Marco Botton Tuttofare	39		☐
Mariah Maclachlan Better Half	41	Patata	⊟
Valerie Liberty Head Chef	:)	Val	☑
Data Grid Docs			☐

Name (job title)	Age	Nickname	Employee
Giacomo Guilizzoni Founder & CEO	40	Peldi	◉
Marco Botton Tuttofare	38		☑
Mariah Maclachlan Better Half	41	Patata	⊟
Valerie Liberty Head Chef	:)	Val	☑
Data Grid Docs			☐



SQLServer

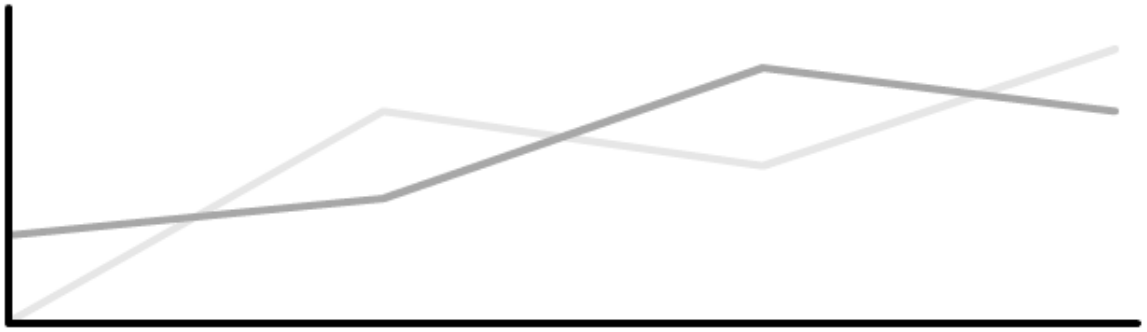
InfluxDb

Name (job title)	Age	Nickname	Employee
Giacomo Guilizzoni Founder & CEO	40	Peldi	◉
Marco Botton Tuttofare	38		☑
Mariah Maclachlan Better Half	41	Patata	⊟
Valerie Liberty Head Chef	:)	Val	☑
Data Grid Docs			☐

A

SQLServer

Name (job title)	Age	Nickname	Employee
Giacomo Guilizzoni Founder & CEO	40	Peldi	◉
Marco Botton Tuttofare	40		☐
Mariah Maclachlan Better Half	41	Fox	⊟
Valerie Liberty Head Chef	:)	Val	☑
Data Grid Docs			☐

Name (job title)	Age	Nickname	Employee
Marco Botton Tuttofare	39		☐
Mariah Maclachlan Better Half	41	Patata	⊟
Data Grid Docs			☐

From To