

"Always code as if the guy  
who ends up maintaining your  
code will be a violent  
psychopath who knows where  
you live."

**MARTIN GOLDING.**



@riverglide



@andypalmer



@antonymarcano



@jmrtn



@pro\_cessor





Ψ

# INFORMATIK

*Keine Naturwissenschaft*

EINSTELLUNGSÄHNLICHKEIT  
KORRELIERT POSITIV MIT DER  
INTERPERSONELLEN ANZIEHUNG

**GLEICH UND GLEICH**  
**EINSTELLUNGSÄHNLICHKEIT**  
**KORRELIERT POSITIV MIT DER**  
**INTERPERSONELLEN ANZIEHUNG**  
**GESELLT SICH GERN**

DIE GRAVITATIONSBEDINGTE  
VERTIKALE DISLOKATION  
MALIFORMER AGRARPRODUKTE  
AUS DER POSITION IHRER  
BIO-GENESE ERFOLGT IN  
DER REGEL PROXITRUNKIAL

**DER APFEL FÄLLT NICHT**  
**DIE GRAVITATIONSBEDINGTE**  
**VERTIKALE DISLOKATION**  
**MALIFORMER AGRARPRODUKTE**  
**AUS DER POSITION IHRER**  
**BIO-GENESE ERFOLGT IN**  
**DER REGEL PROXITRUNKIAL**  
**WEIT VOM STAMM**

*Wir schreiben für die*  
**MASCHINE**  
*anstatt für uns.*

# S

Open –  
Closed  
Principle

Liskov  
Substitution  
Principle

Interface  
Segregation  
Principle

Dependency  
Inversion  
Principle

S

O

Liskov  
Substitution  
Principle

Interface  
Segregation  
Principle

Dependency  
Inversion  
Principle

S

O

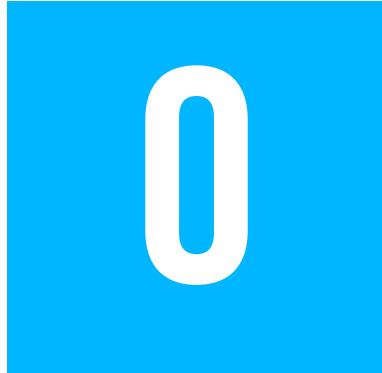
L

Interface  
Segregation  
Principle

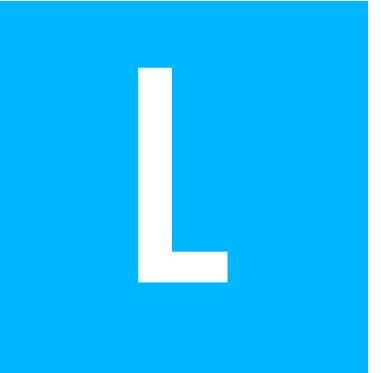
Dependency  
Inversion  
Principle



S



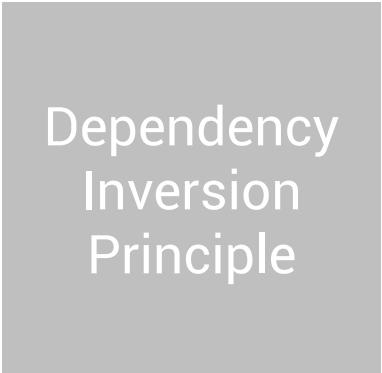
O



L



I



Dependency  
Inversion  
Principle

S

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L

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D

S

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L

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D

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D

Release-  
Reuse  
Equivalency  
Principle

Common  
Reuse  
Principle

Common  
Closure  
Principle

Acyclic  
Dependency  
Principle

Stable  
Abstractions  
Principle

Stable  
Dependencies  
Principle

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RR

Common  
Reuse  
Principle

Common  
Closure  
Principle

Acyclic  
Dependency  
Principle

Stable  
Abstractions  
Principle

Stable  
Dependencies  
Principle

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RR

CR

Common  
Closure  
Principle

Acyclic  
Dependency  
Principle

Stable  
Abstractions  
Principle

Stable  
Dependencies  
Principle

S

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D

RR

CR

CC

Acyclic  
Dependency  
Principle

Stable  
Abstractions  
Principle

Stable  
Dependencies  
Principle

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RR

CR

CC

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Stable  
Abstractions  
Principle

Stable  
Dependencies  
Principle

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CR

CC

AD

SA

Stable  
Dependencies  
Principle

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CC

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SA

SD

Tell, don't ask

DRY

KISS

YAGNI

S

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L

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RR

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SA

SD

Tell, don't ask

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Tell, don't ask

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SA

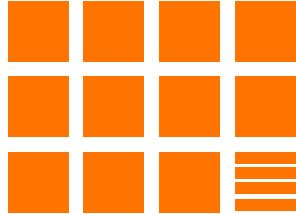
SD

Tell, don't ask

DRY

KISS

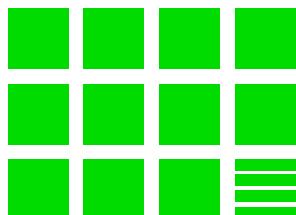
YAGNI



*Machine*

# SEPARATION

*Domain*



# **EMPATHIE**

*Von Person zu Person*

**EMPATHY IS THE CAPACITY TO  
THINK AND FEEL ONESELF INTO  
THE INNER LIFE OF ANOTHER  
PERSON**

Heinz Kohut  
Psychoanalyst

**HALTET EIN**  
*Da kommt noch mehr!*

Simple First

Paradigm-  
Commitment

Abstraction  
Segregation

Domain  
Relationship

Listening  
and  
Learning

Languages

Binary  
Dependency

Domain  
Language

Shared  
Under-  
standing

Eloquence

Patterns  
aren't  
solutions

Weasel Word  
Removal

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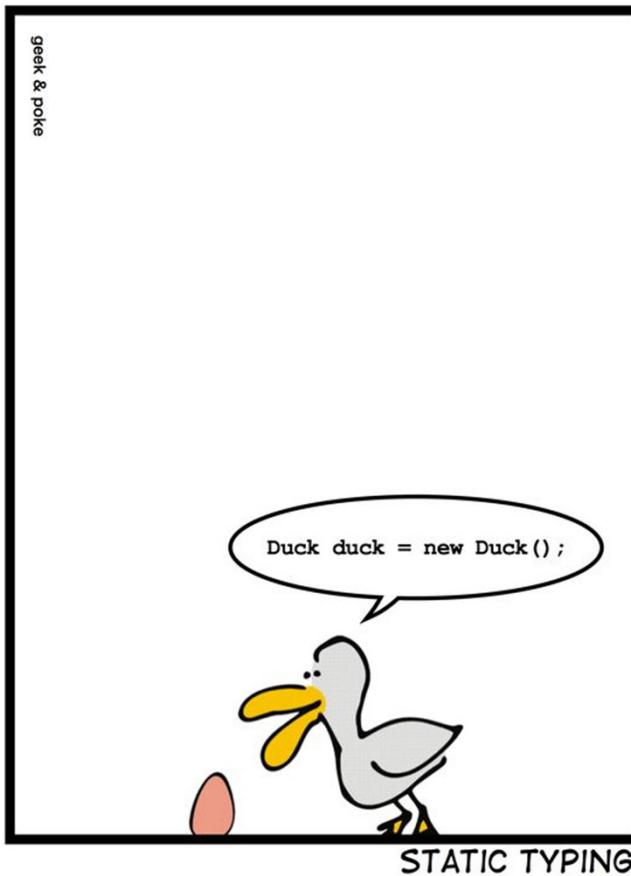
Weasel Word  
Removal

*Simple First!*

**ERST MAL EINFACH**

*Richtig schwer!*

# SIMPLY EXPLAINED



C#

Duck duck = new Duck();

# Python

```
duck = Duck()
```

## C# - DRY

```
var duck = new Duck();
```

*Es steht ein  
ZUG.UN.GLÜCK  
bevor*

*Tell.*

**DON'T ASK**

*Or: The Law of Demeter*

```
if(Customer.Email.Address.Value.IsValid)
{
    Send(Customer.Email.Address, message);
}
```

```
if(Customer.IsValidEmail())
{
    Send(Customer.Email.Address, message);
}
```

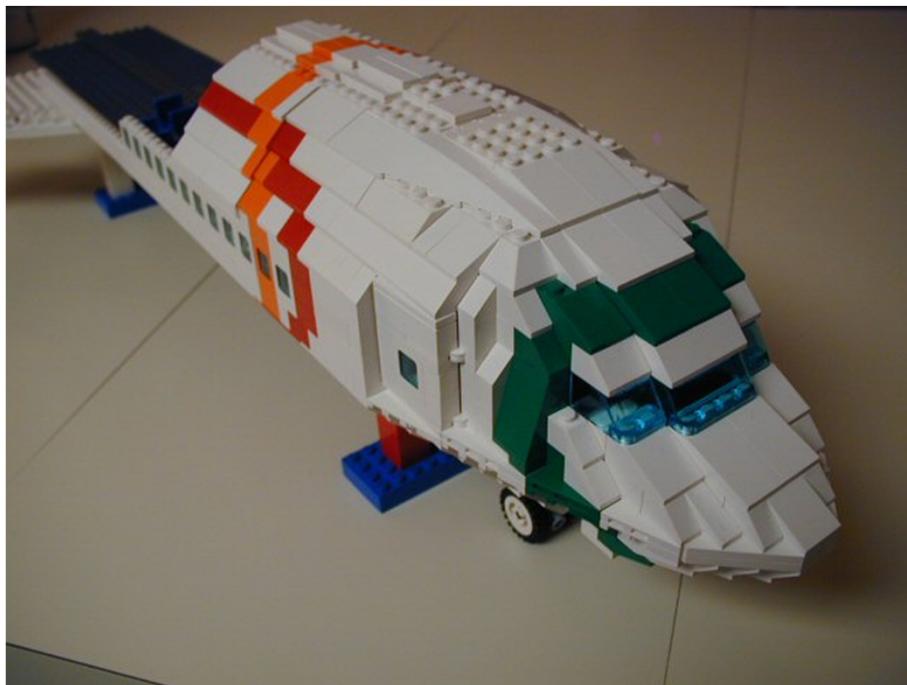
**Customer .Send(message)**

**Message.SendTo(Customer)**

**DON'T LET A STRANGER TOUCH  
YOUR PRIVATES**



# SIZE & REUSE



*Keine*  
**ÜBERRASCHUNGEN**  
*Was erwartest du?*

A problem has been detected and Windows has been shut down to prevent damage to your computer.

The end-user manually generated the crashdump.

If this is the first time you've seen this Stop error screen, restart your computer. If this screen appears again, follow these steps:

Check to make sure any new hardware or software is properly installed. If this is a new installation, ask your hardware or software manufacturer for any Windows updates you might need.

If problems continue, disable or remove any newly installed hardware or software. Disable BIOS memory options such as caching or shadowing. If you need to use Safe Mode to remove or disable components, restart your computer, press F8 to select Advanced Startup Options, and then select Safe Mode.

Technical information:

\*\*\* STOP: 0x000000E2 (0x00000000, 0x00000000, 0x00000000, 0x00000000)

Beginning dump of physical memory  
Physical memory dump complete.

Contact your system administrator or technical support group for further assistance.



# NULLOBJEKTE

# SPÜRE DEINEN CODE

*Man sieht nur mit dem Herzen  
gut*

```
public void Execute(MainViewModel mainViewModel)
{
    mainViewModel.Done = () => Break(mainViewModel);
    mainViewModel.StartCounter();
}

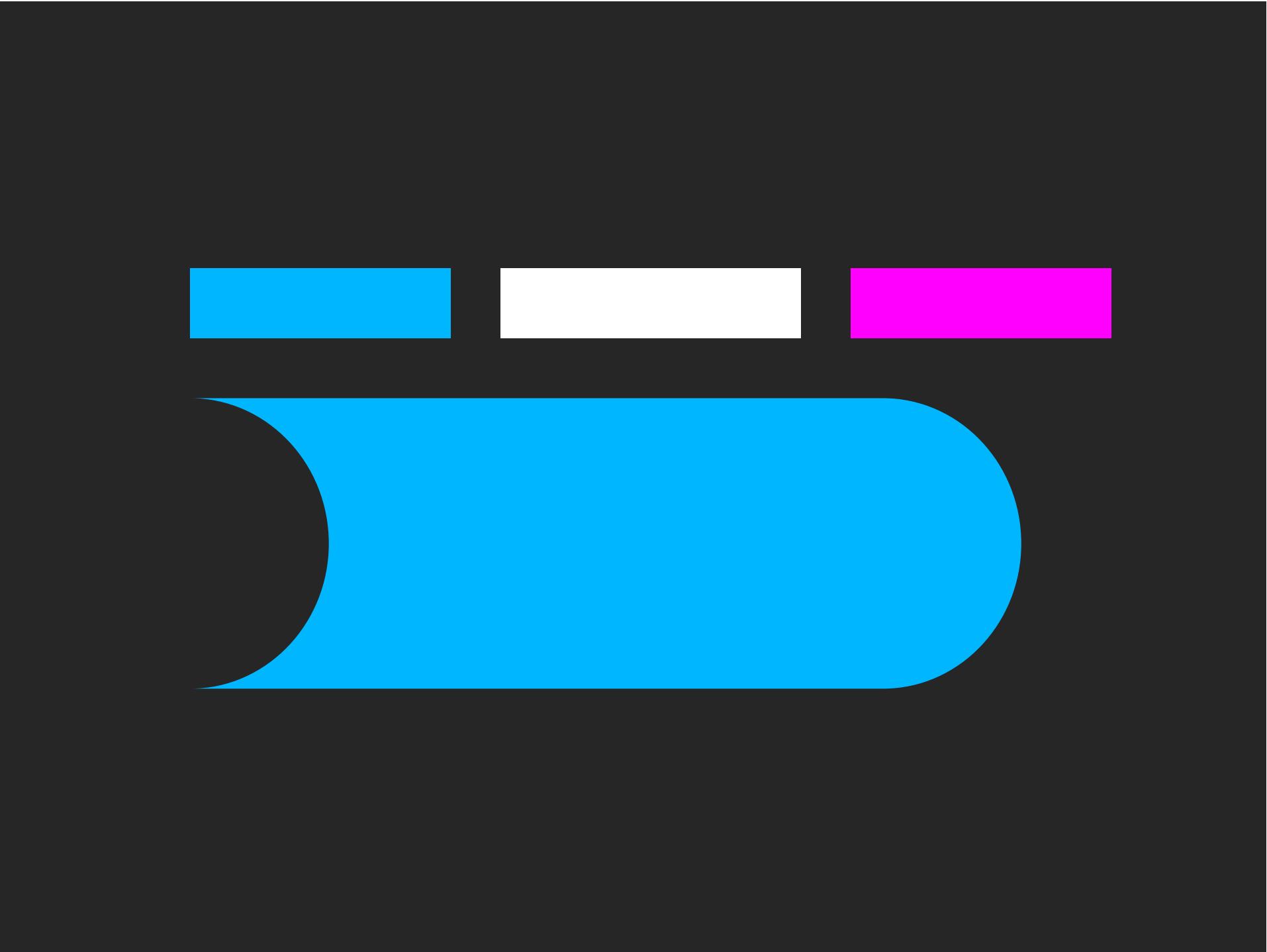
public void Break(MainViewModel model)
{
    model.Color = 0x00DBFF.Rgb().Brush();
    model.TimeLeft = 5.Minutes();
    model.Done = () => Work(model);
    model.StartCounter();
}

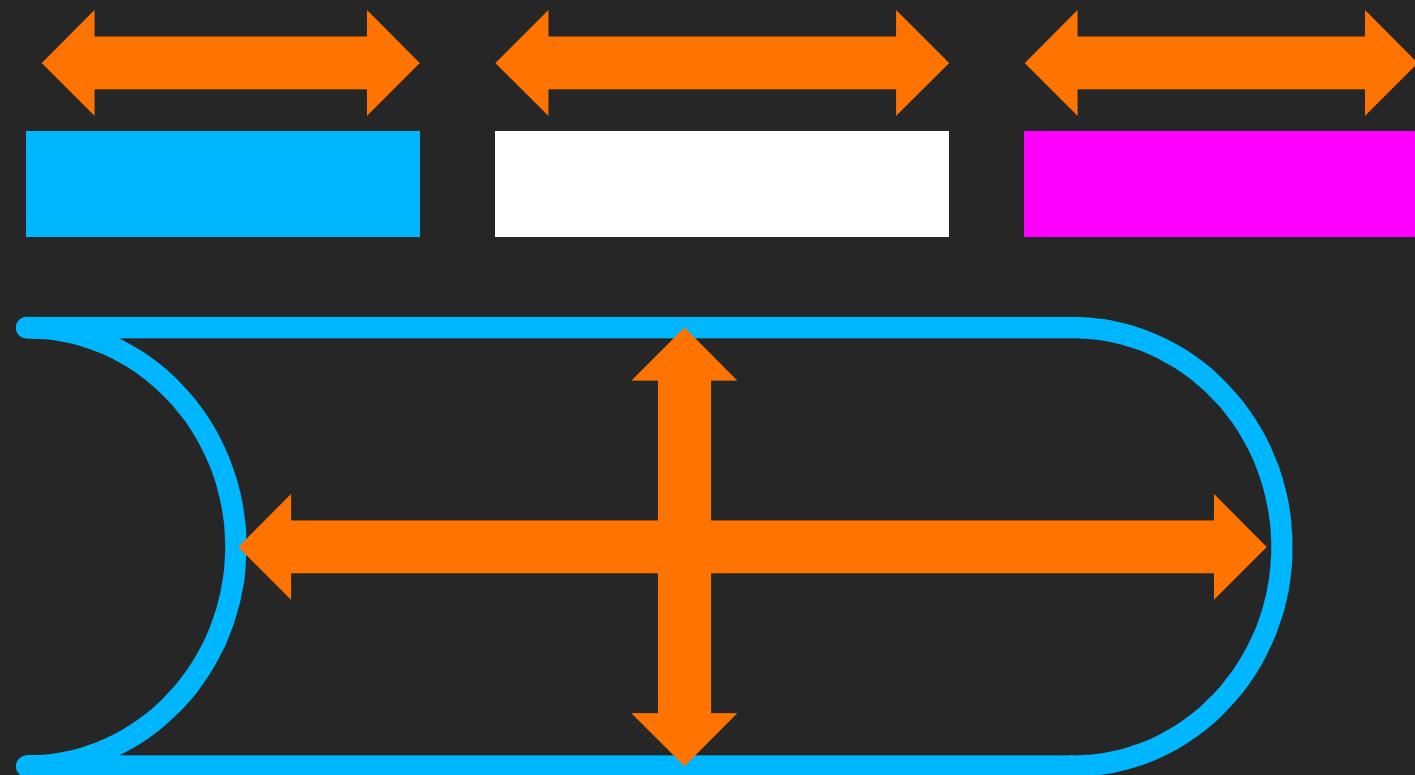
public void Work(MainViewModel model)
{
    model.Color = 0x00DB00.Rgb().Brush();
    model.TimeLeft = 25.Minutes();
    model.Done = () => Break(model);
    model.StartCounter();
}
```

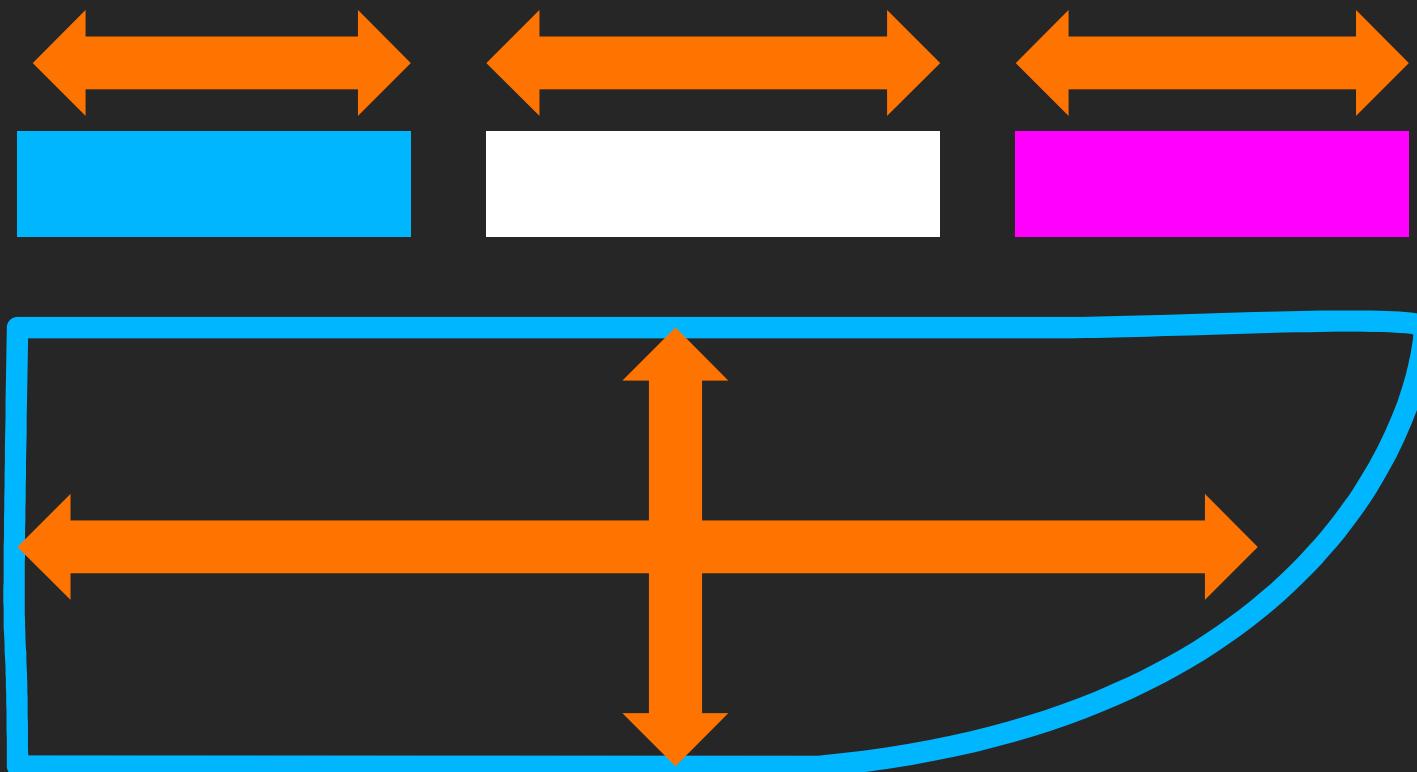
```
public void Execute(MainViewModel mainViewModel)
{
    mainViewModel.Done = () => Break(mainViewModel);
    mainViewModel.StartCounter();
}

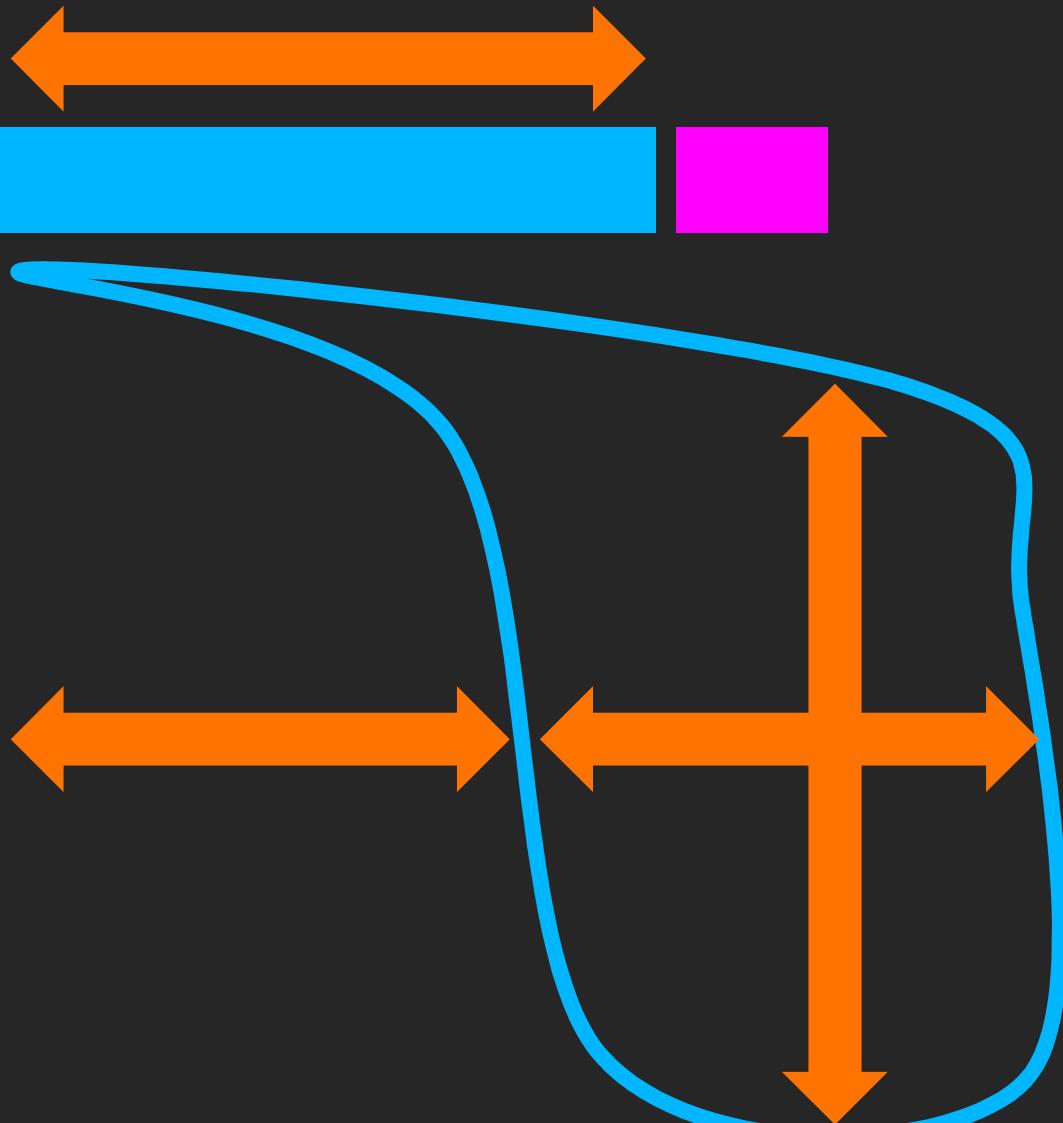
public void Break(MainViewModel model)
{
    model.Color = 0x00DB77.Rgb().Brush();
    model.TimeLeft = 5.Minutes();
    model.Done = () => Work(model);
    model.StartCounter();
}

public void Work(MainViewModel model)
{
    model.Color = 0x00DB00.Rgb().Brush();
    model.TimeLeft = 25.Minutes();
    model.Done = () => Break(model);
    model.StartCounter();
}
```









```
def filter(markup):
    return add_twitter_names(markup)

def add_twitter_names(markup):
    pattern = "@(\w+)"
    url = "https://twitter.com/"
    link = "<a href='%s\\1'>@\\1</a>" % url
    replacement = link
    return re.sub(pattern, replacement, markup)

def home(entries):
    markup = create_page(entries)
    markup = filter(markup)
    return markup

def main():
    entries = Entries()
    if len(argv) > 1:
        date = argv[1]
        entries = entries.written_on(date)
    print home(entries)
```

*Die einfachste*  
**METRIK**  
*für die C-Familie*

# SIGNATURE SURVEY

Datei (<loc>): { ; }





*Code*

# PHILOSOPHIE

*Und Maximen*

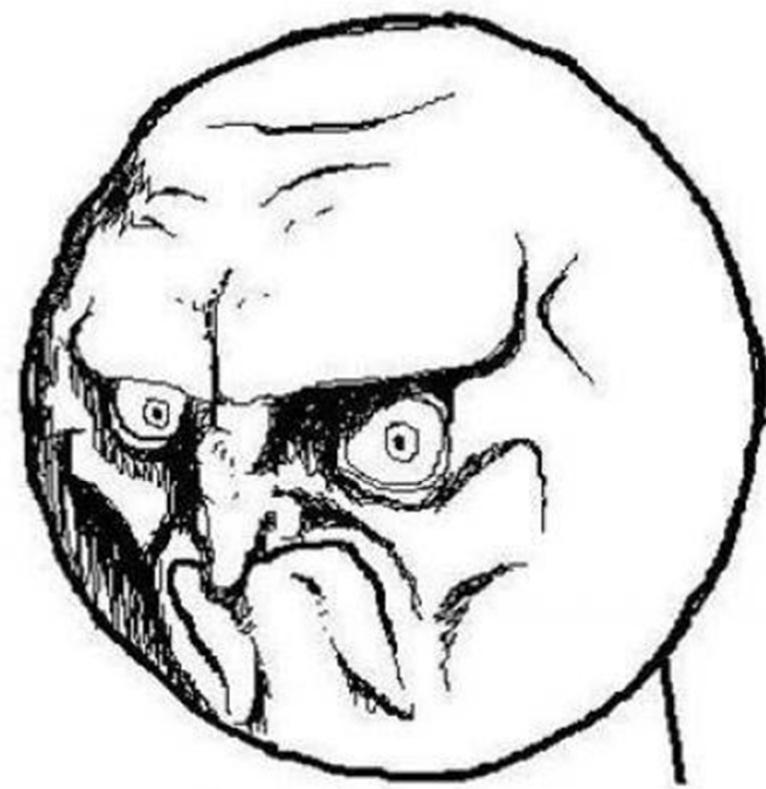
```
>>> import this
```

**IF THE IMPLEMENTATION IS HARD  
TO EXPLAIN, IT'S A BAD IDEA.**

python

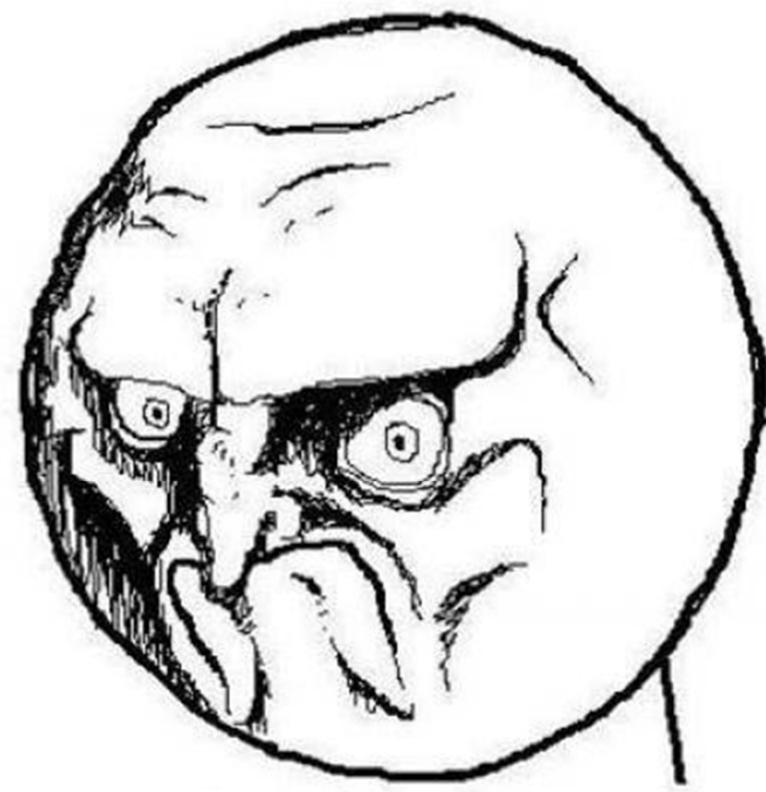
*Richtig*  
**ZUHÖREN**  
*und dabei lernen!*

**WIR BRAUCHEN EINEN  
AUTOMOCKER.**



**NO.**

**DIESE KLASSE IST SCHWER ZU  
TESTEN.**

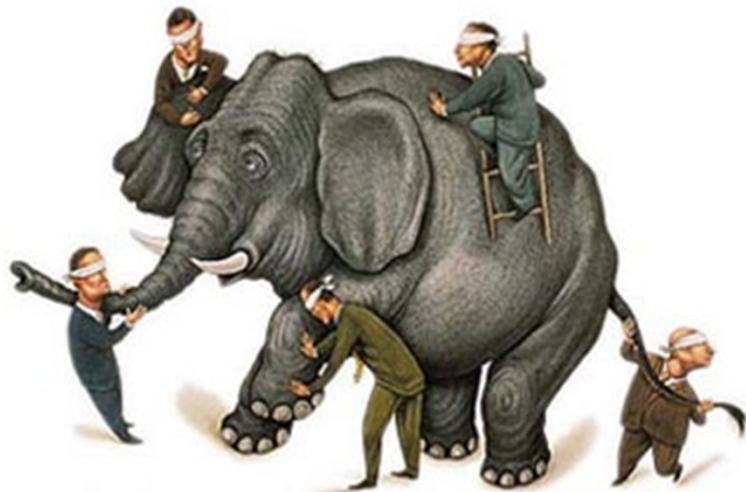


**NO.**

*Shared Understanding*

**DAS GLEICHE SAGEN**

*vom selben Elephanten*



Simple First

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aren't  
solutions

Weasel Word  
Removal

*Unabhängig von der Sprache*

**IM PARADIGMA BLEIBEN**

*Und es verstehen*

**OBJEKTE**

**FUNKTIONEN**

*Polyglott*

# SPRACHEN

*C#, F#, Prolog, Io, Haskell, Brainfuck, Python, Ruby,  
Javascript, Lisp, Smalltalk, C++, C, Java, Groovy, Scala,  
Clojure, Perl, R*

**VIELLEICHT IST DEINE  
PROGRAMMIERSPRACHE  
UNGEEIGNET, UM ES  
GENAU SO ZU TUN**

<https://github.com/cessor/refactoring>

```
private static TimeSpan Transform(this IEnumerable<int> digits)
{
    int result = 0;
    var r = digits.ToList();
    for (int j = 0; j < r.Count; j++)
    {
        int i = (int)Math.Pow(60, j / 2);
        int rTimesI = r[r.Count - j - 1] * i;

        result += (j % 2 == 1)
                    ? rTimesI * 10
                    : rTimesI;
    }
    return TimeSpan.FromSeconds(result);
}
```

```
private static TimeSpan Transform(this IEnumerable<int> digits)
{
    var secondsPerUnit = new [] { 1,10,60,600,3600,36000 };

    return digits
        .Reverse()
        .Zip(secondsPerUnit, (digit, unit) => digit * unit)
        .Sum()
        .Seconds();
}
```

*Gesprochene,*  
**NATÜRLICHE**  
*Sprache*

```
var date = new DateTime(2012, 4, 14, 16, 32, 18, 500);
```

```
var start = 14.April(2012).At(8.PM());
```

```
var end = 8.Hours().Later(start);
```

*Eloquenz*

**SPRACHFERTIGKEIT**

*Eine Sprache richtig sprechen*

**WENN DU MIR ERKLÄREN KANNST,  
WAS DA PASSIERT, WIESO STEHT  
DAS DA DANN NICHT?**

```
[Test]
public void ShouldConvertAnEvenNumberOfDigitsToATimespan()
{
    // Arrange
    var bytes = new byte[] { 0, 0, 1, 5, 0, 5 };
    var expected = new TimeSpan(0, 0, 15, 5, 0);

    // Act
    var actual = Transform(bytes);

    // Assert
    actual.Should().Equal(expected);
}
```

```
When.IType(1, 5, 0, 5).And()  
.TransformTheDigits()  
.Then().TheResult().Should().Equal(  
15.Minutes().And(5.Seconds()))  
);
```

### ShouldConvertASmallerListWithAnEvenCountOfDigits : Passed

When I type: 1, 5, 0, 5, and transform the digits  
Then the result should be 00:15:05

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Removal

*Trennen von Einzelheiten*  
**ABSTRAKTION**  
*in Domäne und Maschine*

for int i=0;

GetCustomer

*Ist etwas*  
**EXCEPTION<sub>ell,</sub>**  
*Wenn du es erwartest?*





*Beschwerden*

# COMPLAINTS

*Wenn ein Problem besteht*



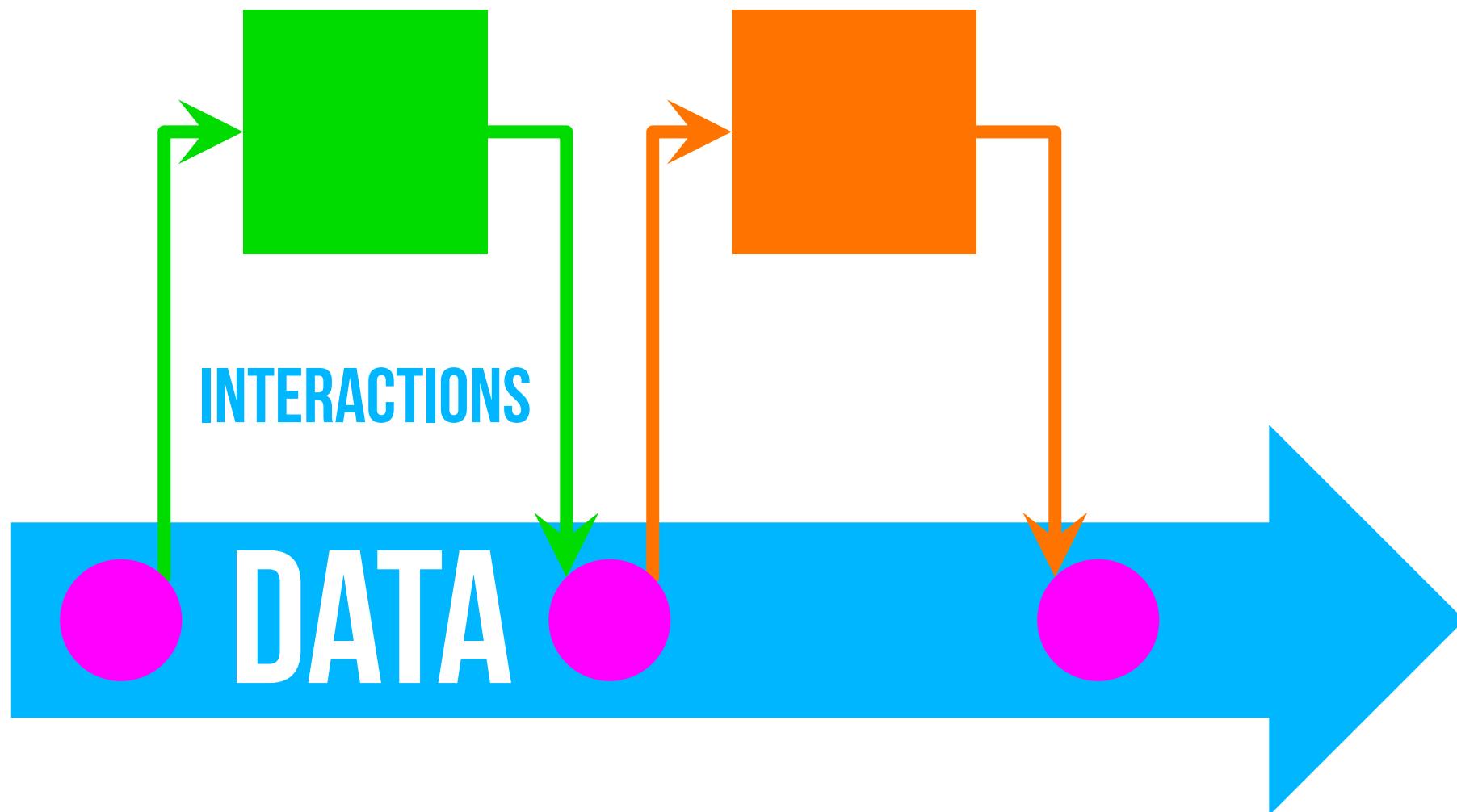
*Entschuldigung*  
**APOLOGIES**  
*Wenn es verzeihbar ist*

$$x = 1 + 2$$

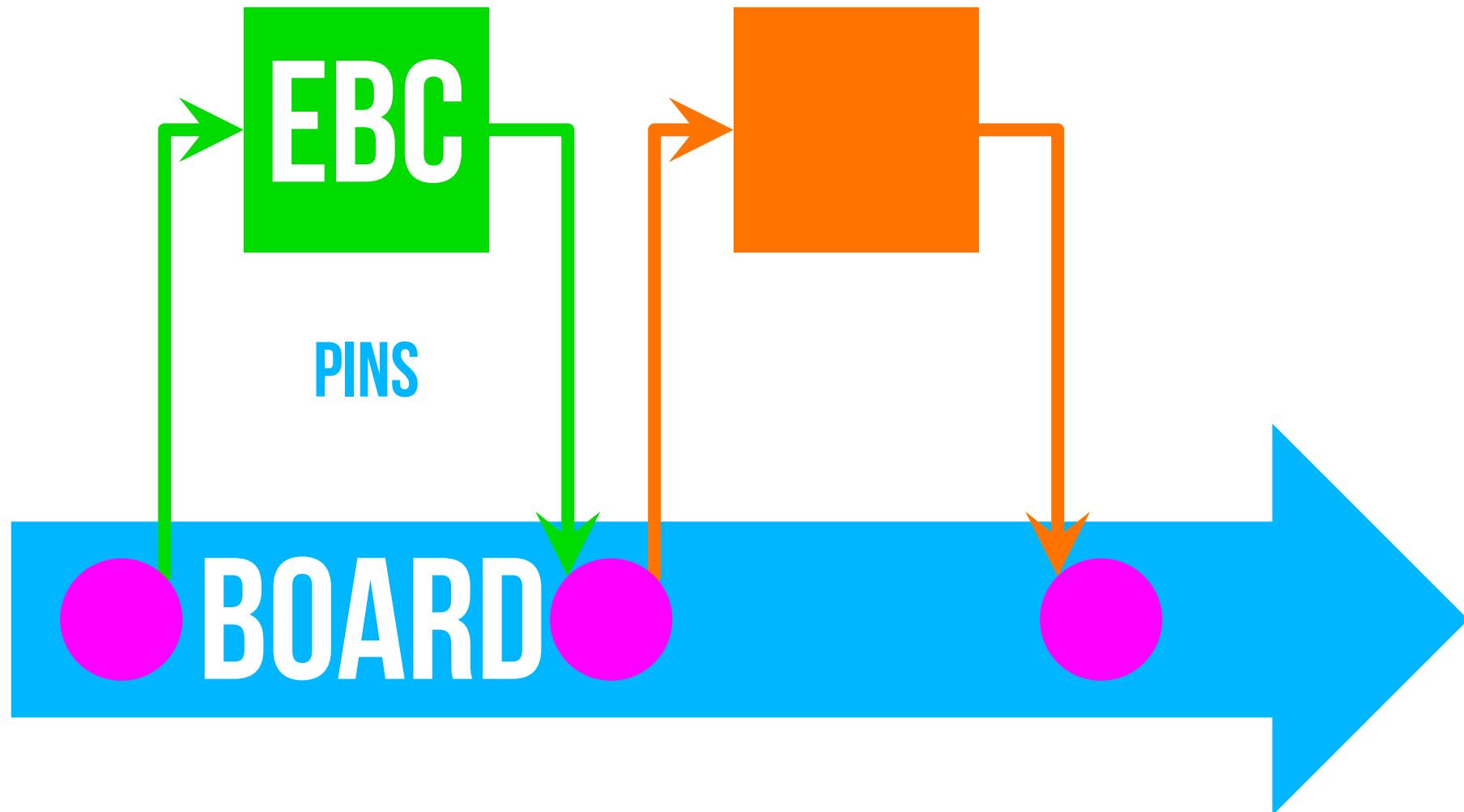
# BINÄRE ABHÄNGIGKEIT

*Meist reicht das.*

# DEPENDENT-ON COMPONENTS



# EVENT BASED COMPONENTS



Imports  
Parameter  
Binäre Bäume

*Design Patterns*

# **ENTWURFSMUSTER**

*Sind keine Lösung*



<https://twitter.com/#!/jmrtn>

<http://jmrtn.com/notes/2012/02/17/design-patterns.html>

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Removal

*Wenn du darüber sprichst...*

## **DOMÄNENBEZUG**

*...ist es wahrscheinlich wichtig*

**EMAIL ADRESSEN  
SIND KEINE STRINGS**

**TINY TYPES**

DINGE MÜSSEN  
NICHT KÖNNEN  
ABER SIE KÖNNEN

SEIN

Email

InvalidEmail

# POLYMORPHISMEN

## TYPEN

*Ubiquitous Language*

# **DOMÄNENSPRACHE**

*Gegen Babylonische Sprachverwirrung*

**SYSTEMISCHE METAPHER**

**KLARE NAMEN**

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Removal

*Never Touch a*  
**RUNNING**  
*System*

*Never Change a*  
**RUNNING**  
*System*

*Always run a  
CHANGING  
*System**



# **BLIND MEN AND THE ELEPHANT**

**JOHN GODFREY SAXE**

It was six men of Indostan  
To learning much inclined,  
Who went to see the Elephant  
(Though all of them were blind),  
That each by observation  
Might satisfy his mind.

The *First* approached the  
Elephant,  
And happening to fall  
Against his broad and sturdy side,  
At once began to bawl:  
"God bless me!—but the Elephant  
Is very like a wall!"

The Second, feeling of the tusk,  
Cried:"Ho!—what have we here  
So very round and smooth and  
sharp?

To me 't is mighty clear  
This wonder of an Elephant  
Is very like a spear!"

The *Third* approached the animal,  
And happening to take  
The squirming trunk within his  
hands,  
Thus boldly up and spake:  
"I see," quoth he, "the Elephant  
Is very like a snake!"

The *Fourth* reached out his eager  
hand,

And felt about the knee.

"What most this wondrous beast  
is like

Is mighty plain," quoth he;

"T is clear enough the Elephant  
Is very like a tree!"

The *Fifth*, who chanced to touch  
the ear,  
Said: "E'en the blindest man  
Can tell what this resembles  
most;  
Deny the fact who can,  
This marvel of an Elephant  
Is very like a fan!"

The Sixth no sooner had begun  
About the beast to grope,  
Than, seizing on the swinging tail  
That fell within his scope,  
"I see," quoth he, "the Elephant  
Is very like a rope!"

And so these men of Indostan  
Disputed loud and long,  
Each in his own opinion  
Exceeding stiff and strong,  
Though each was partly  
in the right,  
And all were in the wrong!

So, oft in theologic wars  
The disputants, I ween,  
Rail on in utter ignorance  
Of what each other mean,  
*And prate about an Elephant*  
*Not one of them has seen!*



Blue  
Rgb,  
0,183,255



Orange,  
Rgb,  
255,116,0



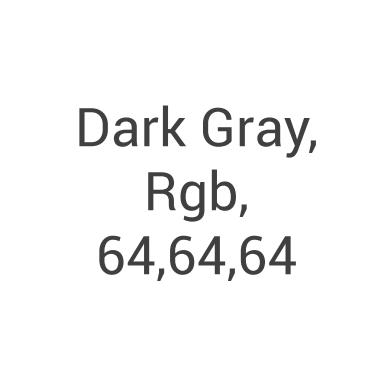
Green,  
Rgb  
0,219,0



Magenta,  
#FF00FF



Light Gray,  
Rgb,  
191,191,191



Dark Gray,  
Rgb,  
64,64,64

The blind men and the elephant

[http://en.wikisource.org/wiki/The\\_poems\\_of\\_John\\_Godfrey\\_Saxe/The\\_Blind\\_Men\\_and\\_the\\_Elephant](http://en.wikisource.org/wiki/The_poems_of_John_Godfrey_Saxe/The_Blind_Men_and_the_Elephant)

Elephant

<http://inquiry111westminster.wikispaces.com/Blind%20men%20and%20an%20elephant>

Inspired by and using the fonts suggested at

<http://www.labnol.org/software/tutorials/advice-select-best-fonts-for-powerpoint-presentation-slides/3355/>

Duck Duck Duck

<http://geekandpoke.typepad.com/geekandpoke/2012/03/static-typing.html>

Rapist

<http://rasmussenanders.blogspot.de/2011/03/catholic-priests-raping-nuns.html>

Bundeswehr

[http://www.bmlv.gv.at/download\\_archiv/photos/inlandseinsatz/images/hochwasser\\_august\\_26.jpg](http://www.bmlv.gv.at/download_archiv/photos/inlandseinsatz/images/hochwasser_august_26.jpg)

Complaints

<http://wayne.usschesapeake.org/wp-content/uploads/2011/06/Shout.png>

Apologies

<http://www.5lovelanguages.com/learn-the-languages/the-five-languages-of-apology/>

Signature Survey

<http://c2.com/doc/SignatureSurvey/>