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Conjuring Demons

The Power of the True Name

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INNOQ

**„Reading
good code is like
reading a
good book.“**



Benjamin Wolf

Senior Consultant
at INNOQ

- Trainer
- Develops applications in Java / .NET
- Loves software quality
- Coffee snob

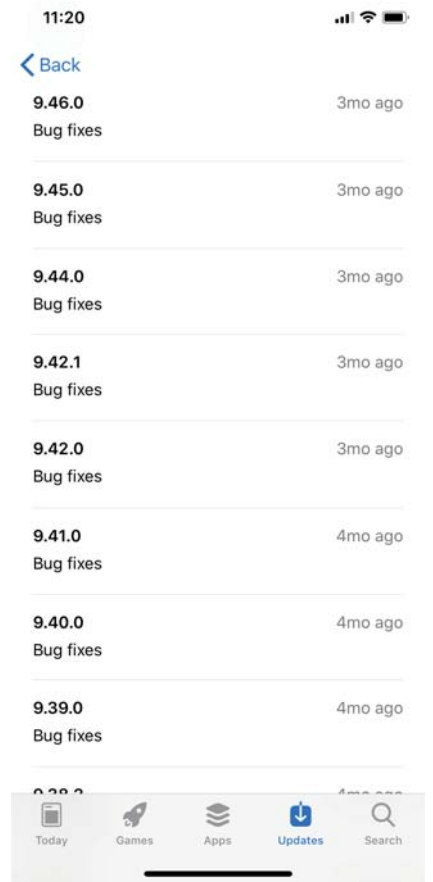
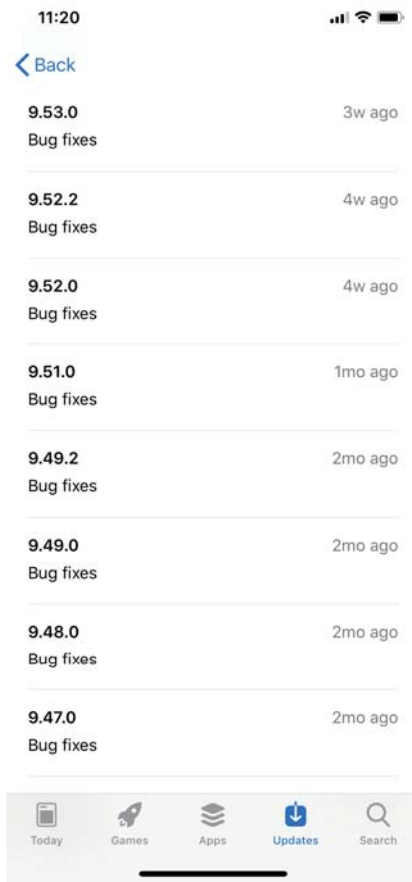
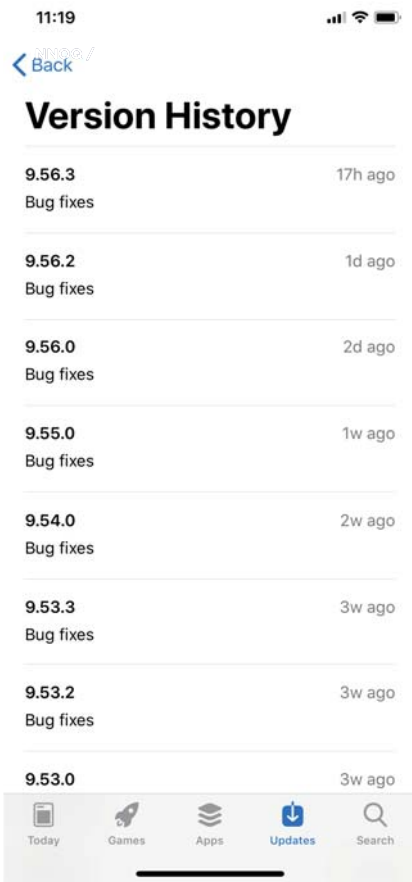
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**There are only two hard things in
Computer Science: cache invalidation
and naming things.**

— Phil Karlton

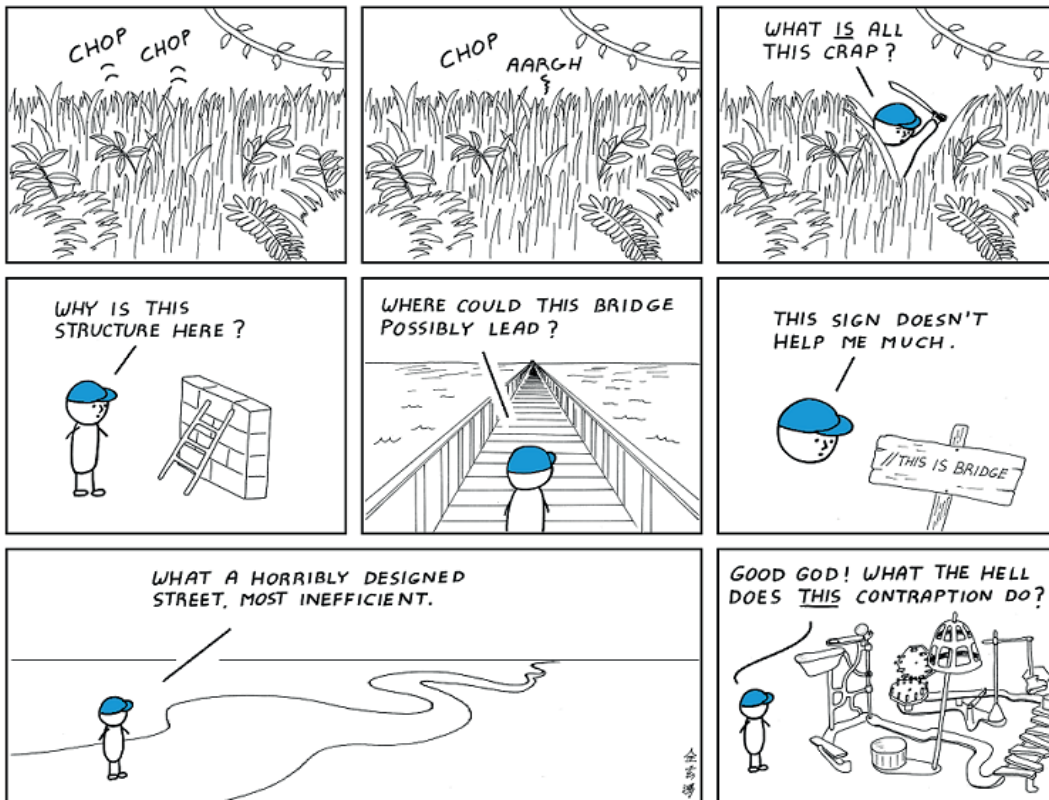
Foto © INNOQ

Motivation



Thank you for using **<AppName>**! We're always working hard to make the app faster and better than ever. Update to the most recent version to get the best experience of **<AppName>**.

Love the app? Rate us! Your feedback helps us to continuously improve **<AppName>**.



I hate reading other people's code.

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100
```

Digression

Code Comments

Photo by Luca Bravo on Unsplash


```
Exception up = new Exception("Something is wrong.");  
throw up; // ha ha
```

```
// When I wrote this, only God and I understood  
// what I was doing
```

```
// Now, God only knows
```

```
// somedev1 - 6/7/2002 Adding temporary tracking of Login  
// somedev2 - 5/22/2007 Temporary my ass
```

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// Magic. Do not touch.

Comment by Jason Sundram on [stackoverflow.com](#)

```
// private instance variable for storing age  
public static int age;
```

```
try {  
    ...  
} finally { // should never happen  
    ...  
}
```

```
// it was hard to write  
// so it should be hard to read
```

```
// John! If you'll svn remove this once more,  
// I'll shut you, for God's sake!  
// That piece of code is not "something strange"!  
// That is THE AUTH VALIDATION.
```



```
options.BatchSize = 300; // Madness? THIS IS SPARTA!
```

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```
long long ago; /* in a galaxy far far away */
```

Comment by Juliano on stackoverflow.com

```
// Dear maintainer:  
//  
// Once you are done trying to 'optimise' this routine,  
// and have realised what a terrible mistake that was,  
// please increment the following counter as a warning  
// to the next guy:  
//  
// total_hours_wasted_here = 42  
//
```

```
/*  
 * You may think you know what the following code does.  
 * But you don't. Trust me.  
 * Fiddle with it, and you'll spend many a sleepless  
 * night cursing the moment you thought you'd be clever  
 * enough to "optimize" the code below.  
 * Now close this file and go play with something else.  
 */
```

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Commit Messages

WHAT
GOOD SHALL
I DO THIS
DAY?

Photo by Nathan Lemon on Unsplash

	COMMENT	DATE
○	CREATED MAIN LOOP & TIMING CONTROL	14 HOURS AGO
○	ENABLED CONFIG FILE PARSING	9 HOURS AGO
○	MISC BUGFIXES	5 HOURS AGO
○	CODE ADDITIONS/EDITS	4 HOURS AGO
○	MORE CODE	4 HOURS AGO
○	HERE HAVE CODE	4 HOURS AGO
○	AAAAAAAAA	3 HOURS AGO
○	ADKFJSLKDFJSDKLFJ	3 HOURS AGO
○	MY HANDS ARE TYPING WORDS	2 HOURS AGO
○	HAAAAAAAAAANDS	2 HOURS AGO

AS A PROJECT DRAGS ON, MY GIT COMMIT MESSAGES GET LESS AND LESS INFORMATIVE.

Common Commit Messages

- **Some bugs fixed**
- **Fixed bugs**
- **Some little changes**
- **Changed a little**
- **Small fixes**
- **Fixes XYZ**
- **F*CK! Had to revert!**

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Photo by Emily Morter on Unsplash

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Style

Photo by Nafnia Putra on Unsplash

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Content

Photo by [Sindre Aalberg](#) on [Unsplash](#)

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Metadata

Photo by Jingyi Wang on Unsplash

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7 rules for commit messages

Photo by Marvin Ronsdorf on Unsplash



1 2 3 4 5 6 7

1. Separate subject from body with a blank line

2. Limit the subject line to 50 characters

3. Capitalize the subject line

4.

**Do not end the subject
line with a period**

5. Use the imperative mood in the subject line

6. Wrap the body at 72 characters

7.

Use the body to explain what and why vs. how

Summarize changes in around 50 characters or less

More detailed explanatory text, if necessary. Wrap it to about 72 characters or so. In some contexts, the first line is treated as the subject of the commit and the rest of the text as the body. The blank line separating the summary from the body is critical (unless you omit the body entirely); various tools like 'log', 'shortlog' and 'rebase' can get confused if you run the two together.

Explain the problem that this commit is solving. Focus on why you are making this change as opposed to how (the code explains that). Are there side effects or other unintuitive consequences of this change? Here's the place to explain them.

Further paragraphs come after blank lines.

- Bullet points are okay, too

- Typically a hyphen or asterisk is used for the bullet, preceded by a single space, with blank lines in between, but conventions vary here

If you use an issue tracker, put references to them at the bottom, like this:

Resolves: #123

See also: #456, #789

```
1. SourceTree Shell (vim)
SourceTree Shell (vim) 8/1
+ .g/COMMIT_EDITMSG
# Applying this commit will...
Add the main presentation file

# Why was this change made?
We need a presentation for the .NET user group meetup in our office. In
addition, it can be used for any conference in the future.

# Any references to issues, tickets, articles?
See #4

# Please enter the commit message for your changes. Lines starting
# with '#' will be ignored, and an empty message aborts the commit.
#
# On branch conjuring_demons
# Your branch is ahead of 'origin/conjuring_demons' by 3 commits.
# (use "git push" to publish your local commits)
#
# Changes to be committed:
#   new file:   software_demons.key
#
<WD: /Users/ben/Documents/developer/conferences/gitlab_repo Line: 10 Column: 0
```

Explaining the motive in detail

Summarizing the essential

What is the purpose of a commit message?

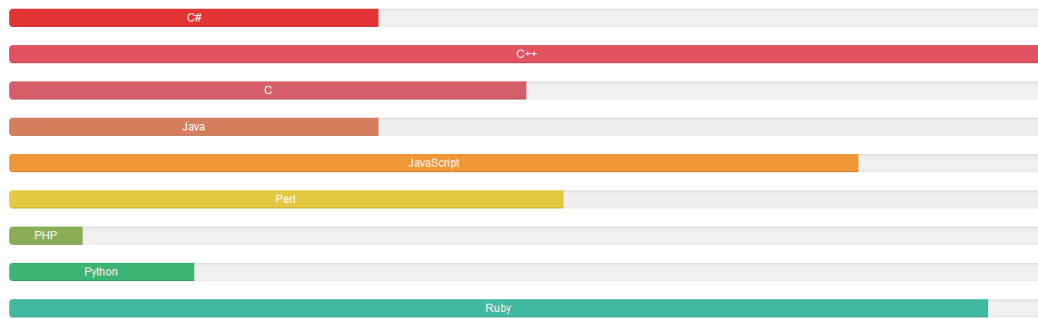
NOT babbling

NOT stating the obvious

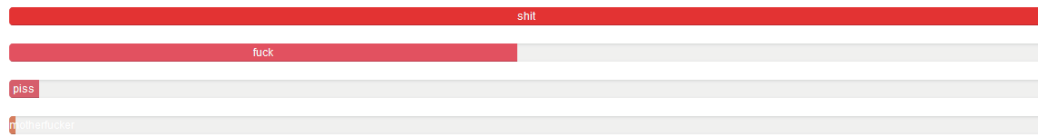
@gitlost

@git_commit_m

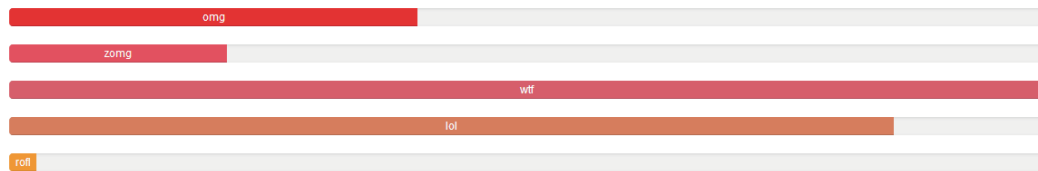
Profanity by Programming Language



Total Swear Words



Total Other Words



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Naming

**What has
been seen
cannot be
un-seen**

Photo by Jared Rice on Unsplash

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Naming

**What has
been seen**

**cannot be
un-seen**

Photo by Quentin Dr on Unsplash



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Naming

**What has
been seen**

**cannot be
un-seen**

Photo by Paul on Unsplash


```
private int a;  
private int b;  
private int c;
```

```
SetUserInterfaceControlState(false);
```

```
SetManualUpdateOnOff("1");
```

```
SetManualUpdateOnOff("1");
```

```
// Yap, that is a string! (J°□°) J _ LL
```




```
ActReqInter4ProcUp(string aHaMesCo)
{
    ...
}
```

```
ActivateRequiredInterfaceForProcessUpdate  
    (string aHashedMessageContent)  
{  
    ...
```



```
void SetSimpleIntValue(int aValue)
{
    // check borders

    // calculate two other values with rocket science math

    // Trigger UI Update

    // request information from server

    _myMember = aValue;
}
```

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Amazing examples for awesome names

Photo by Blake Richard Verdoorn on Unsplash

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Think.

Think twice!

Write your code.

Think again!

Refactor your code.

Think different!

Use Concrete Names

```
bool ServerCanStart( );
```

```
bool CanListenOnPort();
```

```
ourRemoteServerApp.exe --run_locally
```

```
ourRemoteServerApp.exe --extra_logging
```


Attach Details

```
var elapsed = Date.GetTime() - start;
```

```
var elapsedMilliseconds = Date.GetTime() - start;
```

```
void printUserComment(string comment);
```

```
void printUserComment(string unescapedComment);
```

Prevent Ambiguity

```
Results = Database.AllObjects.Filter("year <= 2011");
```

```
Results = Database.AllObjects.Select("year <= 2011");  
Results = Database.AllObjects.Exclude("year <= 2011");
```


Naming Booleans

```
bool read_password = true;
```

```
bool need_password = true;  
bool user_is_authenticated = false;
```

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```
bool disable_ssl = true;
```

Source: „The Art of Readable Code“

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```
bool use_ssl = false;
```

Source: „The Art of Readable Code“

**Match expectations of users
(of your code)**

```
var myVal = myObject.GetValue();
```

```
myObject.SetValue(myVal);
```


Setters are evil

```
class CookieJar
{
    void SetCookies(int aCookieCount) { ... }
    ...
}
```

```
myJar.SetCookies(myJar.GetCookies() - 3);
```

It's all about the context...

```
class CookieJar
```

```
{
```

```
    TakeCookies(int aCookieCount) { ... }
```

```
    AddNewCookies(int aNewCookies) { ... }
```

```
    ...
```

```
}
```

```
myJar.TakeCookies(3);
```

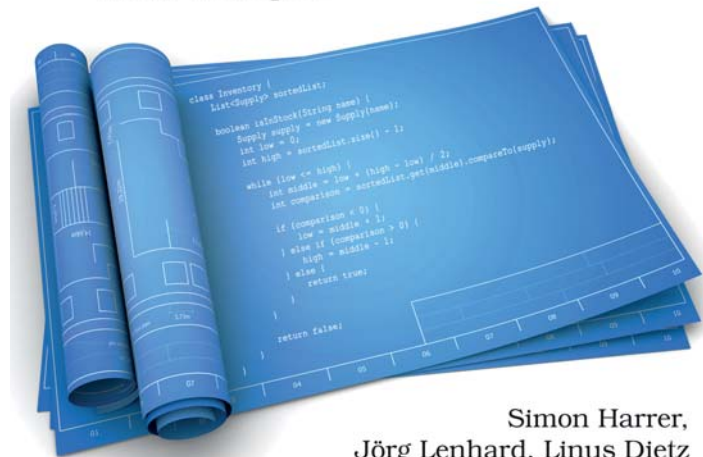
Setters are evil

Promotion on our own account

- Many examples and ideas that are valid in .NET
- Good value
- Covers code style, comments, **naming**, testing, error handling, object-oriented and functional design best practices.
- Overall about beautiful code
- Unique before/after approach with bad and clean code side-by-side.

Java by Comparison

Become a Java Craftsman
in 70 Examples



Simon Harrer,
Jörg Lenhard, Linus Dietz
Foreword by Venkat Subramaniam
Edited by Andrea Stewart



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- Page 43, “Swear words per 10000 comments”, <https://github.com/Dobiasd/programming-language-subreddits-and-their-choice-of-words>
- Page 44, “Github profanity”, andrewvos.com/2011/02/21/amount-of-profanity-in-git-commit-messages-per-programming-language

Resources (images)

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- Page 46, "Oh my God !", Photo by [Quentin Dr](https://unsplash.com/photos/mUtlJ4yumzg) on [Unsplash](https://unsplash.com/photos/mUtlJ4yumzg), <https://unsplash.com/photos/mUtlJ4yumzg>
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- Page 55, "Latte in a coffee machine", Photo by [Blake Richard Verdoorn](https://unsplash.com/photos/gM-RfQsZK98) on [Unsplash](https://unsplash.com/photos/gM-RfQsZK98), <https://unsplash.com/photos/gM-RfQsZK98>
- Page 90, "Java by Comparison", <https://pragprog.com/book/javacomp/java-by-comparison>

Resources (examples)

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- Pages 28-36: „How to write a commit message“, Chris Beams on <https://chris.beams.io/posts/git-commit/>, CC BY-SA 4.0
- Pages 61-78: Boswell, Dustin; Foucher, Trevor (2011). *The Art of Readable Code*. O'Reilly Media.