```
MIT/Splash 2019
"""making software
  hard(ly work)
try:
work()
except:
print("aaah!")
```

Making Software_Hard(ly, Work)

Splash 2019

Hannah & Tareq

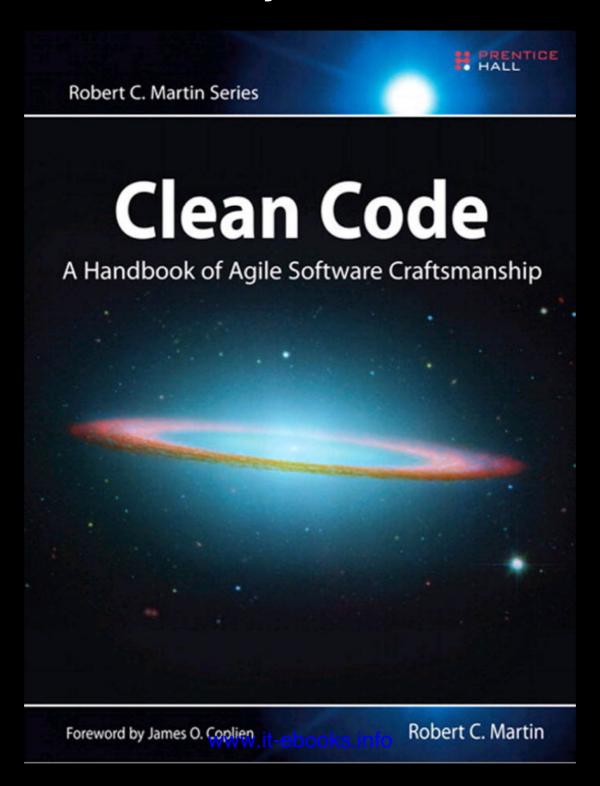
NOTE !important

Although this class is filled with jokes and dAnK MemEz, you surprisingly can learn a lot from it. *

* You will also learn how to use cool lingo they like in Silicon Valley

One of the references we will disappoint today is:

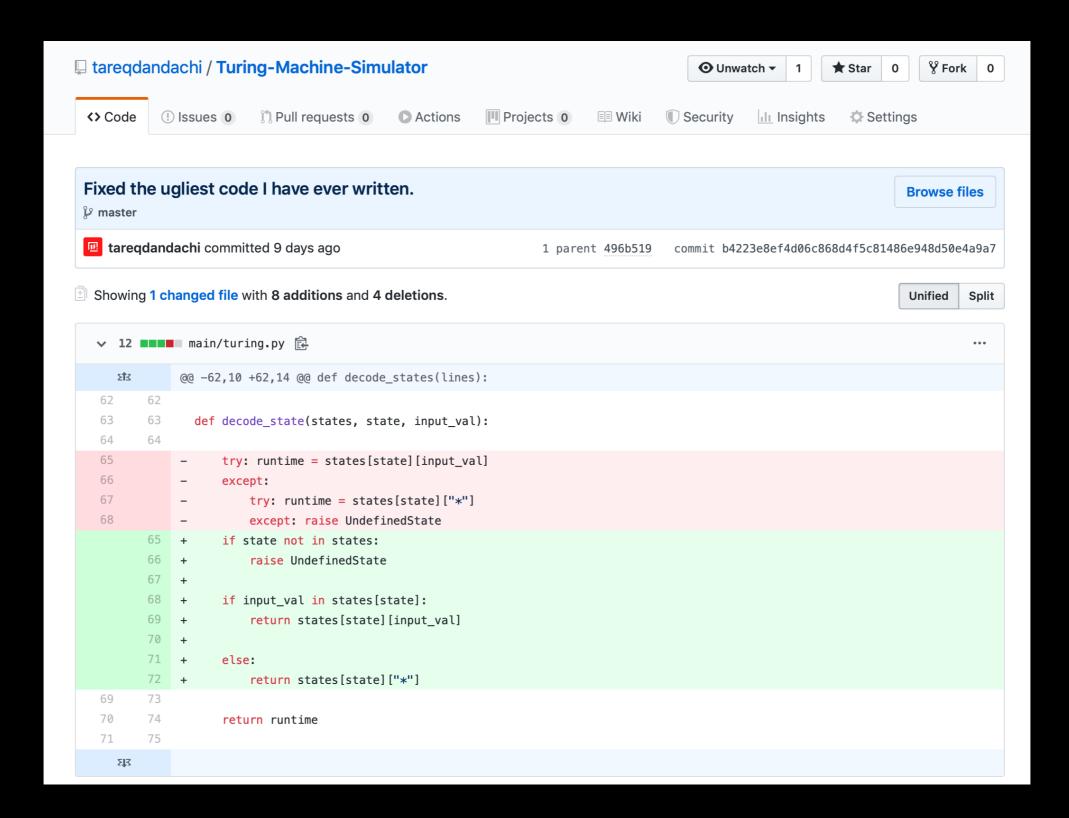
Clean Code by Robert C. Martin



Can you see anything wrong with this code?

```
try: runtime = states[state][input_val]
except:
    try: runtime = states[state]["*"]
    except: raise UndefinedState
```

Can you see anything wrong with this code?



Some golden code here.

```
for (var i = 0; i < find_length([for (i of [0,0,0,0,0]) x]); i++) { // i < 5</pre>
  console.log(i)
function find length(item) {
  n = [].length // = 0
  for (var i = 0; i < item.length; i++) {</pre>
    console.log([n])
    n += [n].length // += 1
  }
  return n //returns item.length
```

How to save storage when writing code

- a. Never use the return key, it's an extra character (or two sometimes)!!!
- b. Never tabulate (if possible)
- c. Never use comments, waste of characters.
- d. Do use very short variable names, like: a, b, c, etc.you have 52 variable names that are 1 char long ...
- e. Do use semicolons to separate literally all lines.
- f. Do use multiple nested list comprehensions as opposed to just for loops.

Minification — jquery.min.js — main.min.css — site.min.html

Be forward thinking

Always keep in mind that your code will need to be modified later on.

Naming Variables

Naming Variables

1. Be Cryptic

You don't w4nt p34p13 h4x1n6 u

Be Cryptic

2. Be FUN!

Be Cryptic

3. Be short

Saves storage and can be quickly read.

Be Cryptic

4. Always use pre-defined names

```
Everybody, including the compiler, likes
seeing
print(print.print(prInt) - prlnt)
```

Number of iterations

Number of iterations

Loops vs 00Ps

Number of modules included

Every programmers favorite

I wrote 72,459 lines of code last night

I wrote 72,459 lines of code last night

Number of lines & time spent writing it

Number of times compiler crashes

Number of print statements vs number of log statements

Is it written in emacs or vim

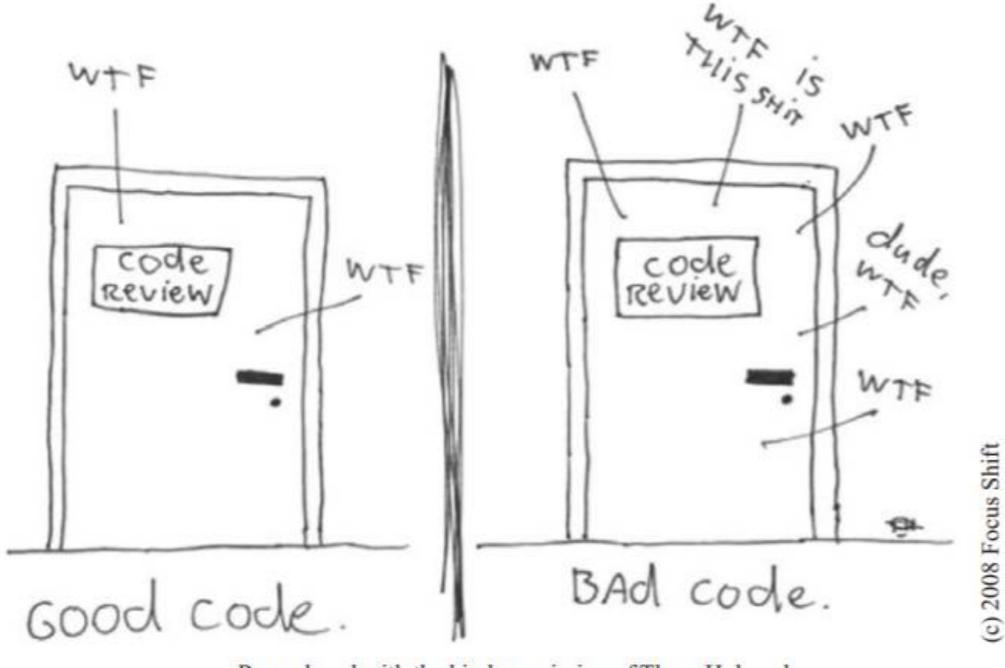
:wq!

In my case: how hot the laptop runs

Thermal throttling

How many nested strings

The ONLY VALID MEASUREMENT OF Code QUALITY: WTFs/minute



Reproduced with the kind permission of Thom Holwerda. http://www.osnews.com/story/19266/WTFs_m

Git

ESOTERIC LANGS

TrumpScript

White Space

Chef

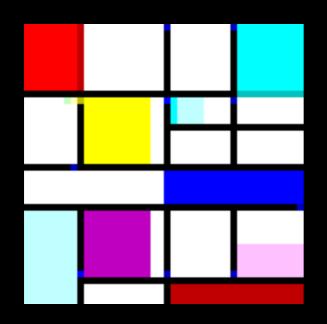
ESOTERIC LANGS

LOLCAT

JSFuck

[,], (,), !, and +

Binary Lambda Calculus



Piet



Shakespear

The Infamous Hello World Program.

Romeo, a young man with a remarkable patience.

Juliet, a likewise young woman of remarkable grace.

Ophelia, a remarkable woman much in dispute with Hamlet.

Hamlet, the flatterer of Andersen Insulting A/S.

Act I: Hamlet's insults and flattery.

Scene I: The insulting of Romeo.

[Enter Hamlet and Romeo]

Hamlet:

You lying stupid fatherless big smelly half-witted coward!
You are as stupid as the difference between a handsome rich brave hero and thyself! Speak your mind!

You are as brave as the sum of your fat little stuffed misused dusty old rotten codpiece and a beautiful fair warm peaceful sunny summer's day. You are as healthy as the difference between the sum of the sweetest reddest rose and my father and yourself! Speak your mind!

You are as cowardly as the sum of yourself and the difference between a big mighty proud kingdom and a horse. Speak your mind.

Speak your mind!

[Exit Romeo]

Unlambda

```
r````.H.e.l.l.o. .w.o.r.l.di
```

LOLCAT

```
HAI 1.2
CAN HAS STDIO?
PLZ OPEN FILE "LOLCATS.TXT"?
AWSUM THX

VISIBLE FILE
O NOES

INVISIBLE "ERROR!"
KTHXBYE
```

Brainf*ck

YEET

Most important thing in almost every single domain ever

Buzzwords!

Hackathon