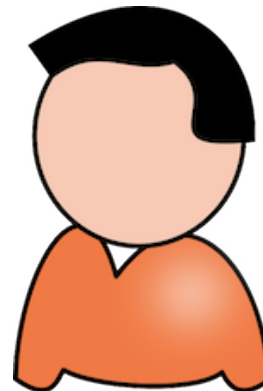
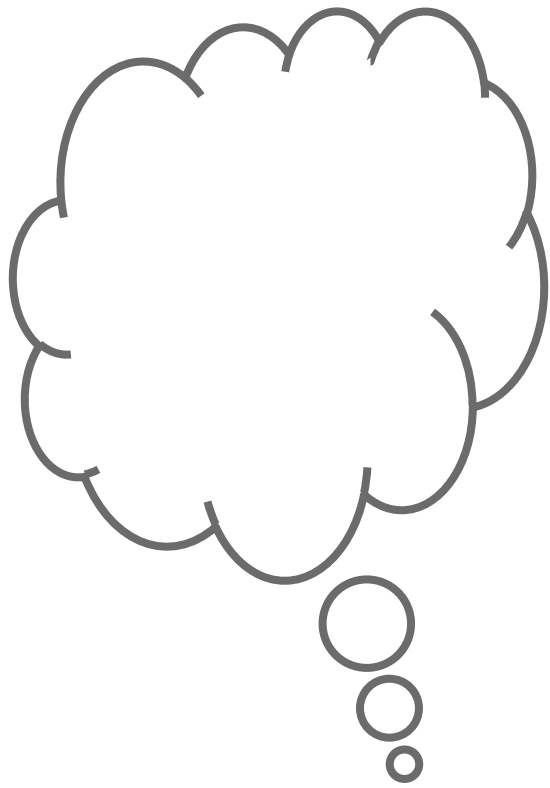


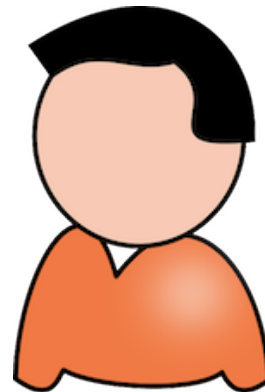
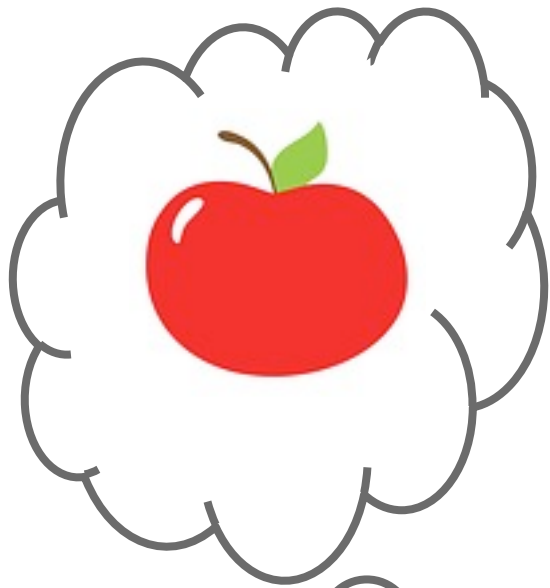
Building Blocks for Modern Programming Languages

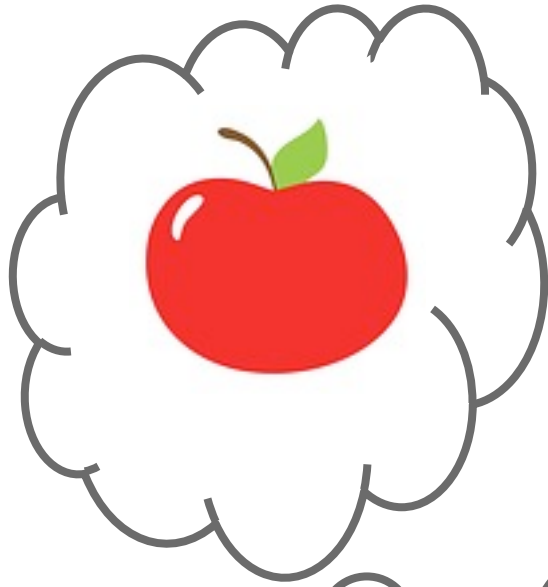
Ravi Chugh



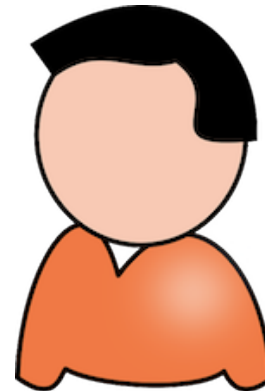
UCSDCSE
Computer Science and Engineering

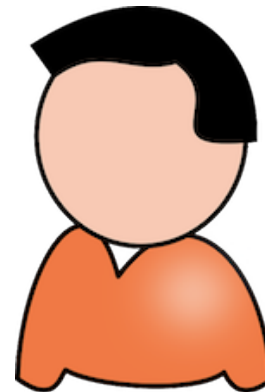
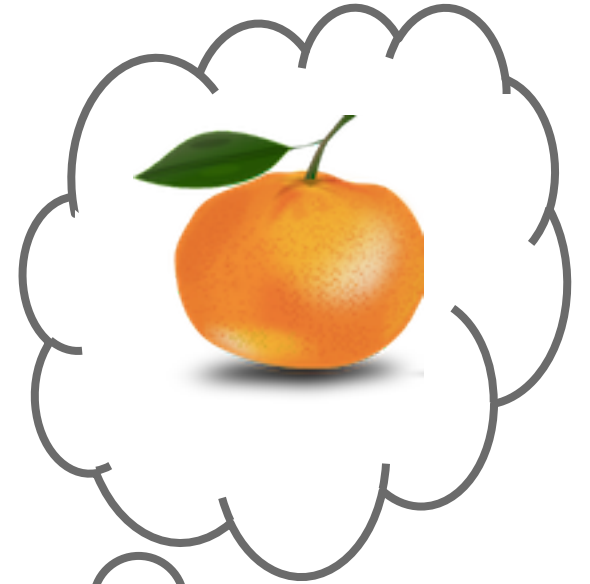
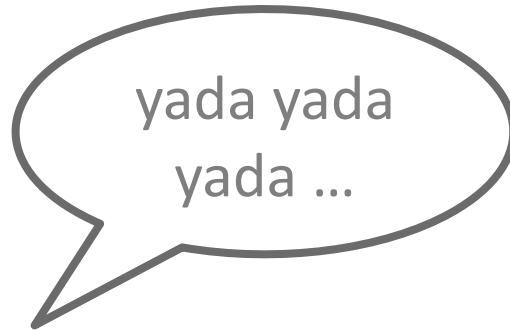
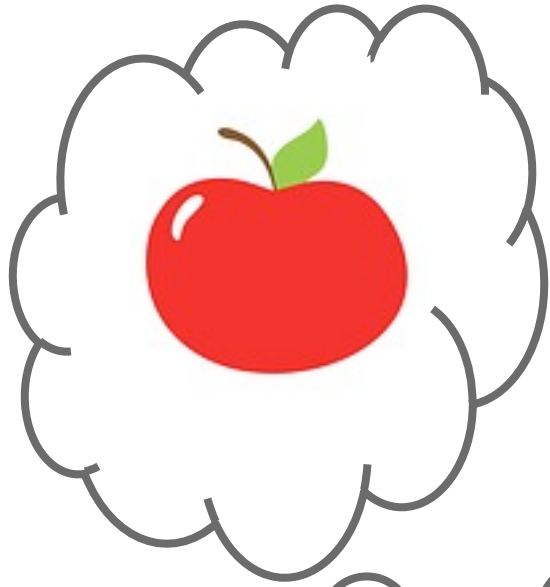


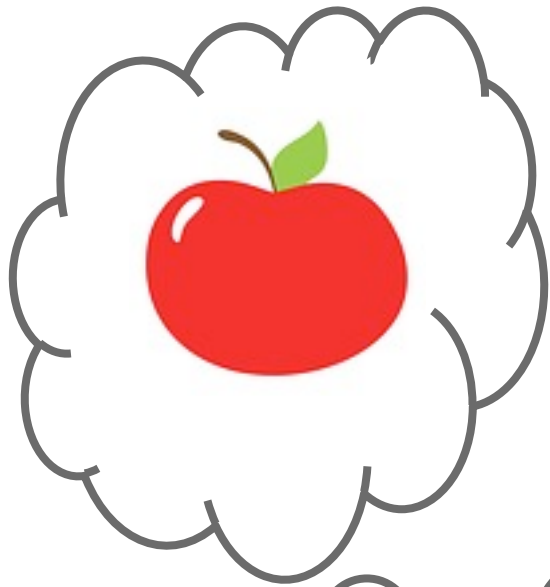




yada yada
yada ...



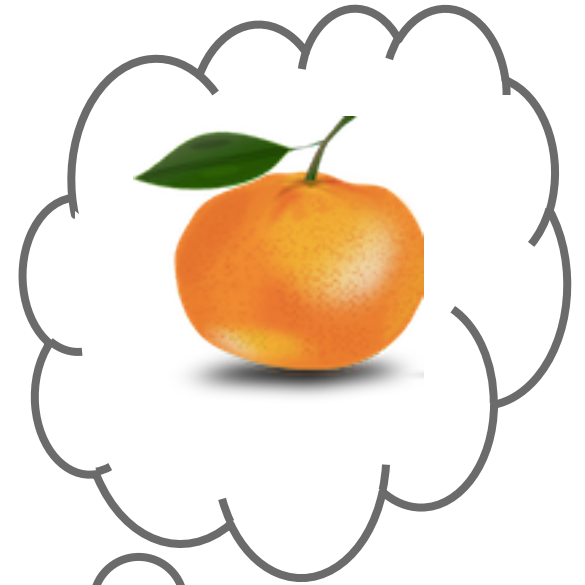
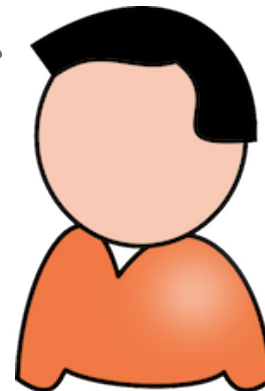


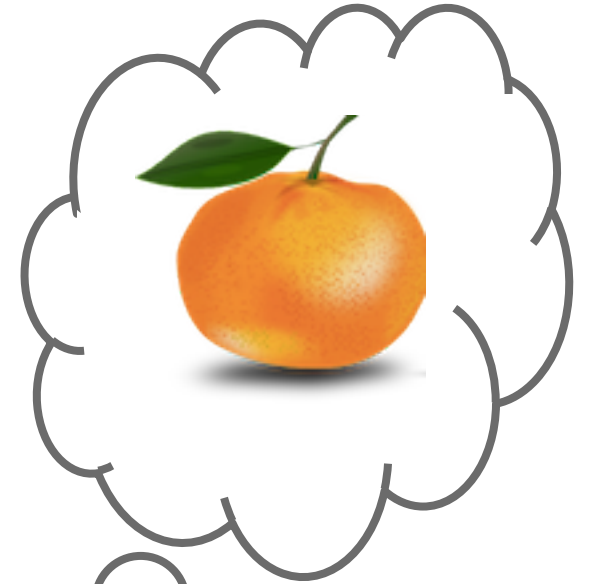
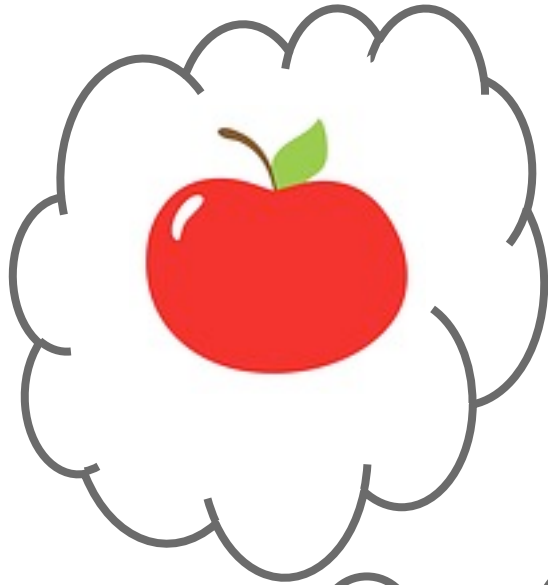


yada yada
yada ...



yada ...

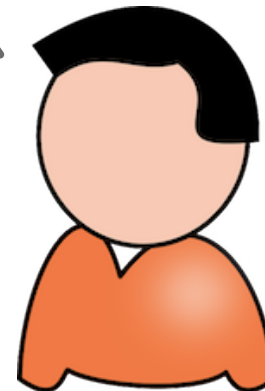


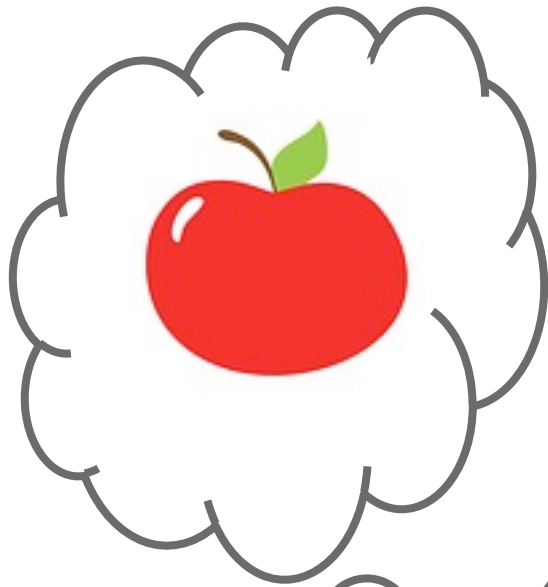


yada yada
yada ...

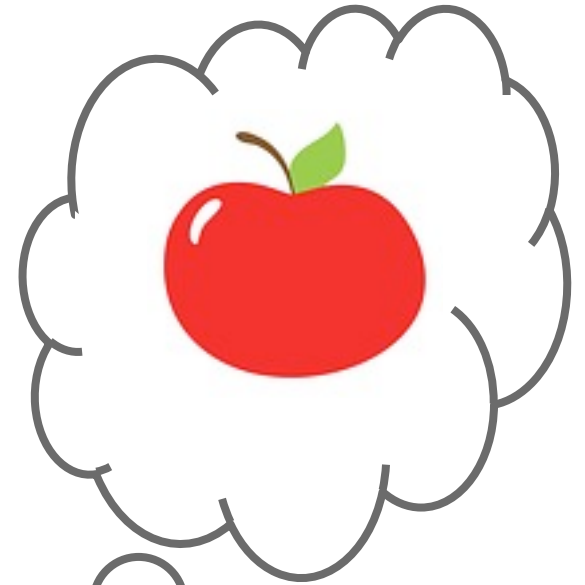
yada ...

yada ...





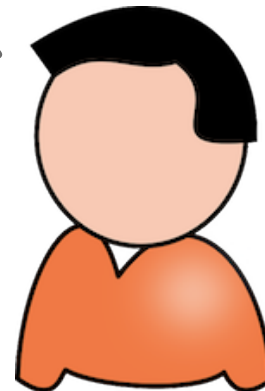
yada yada
yada ...

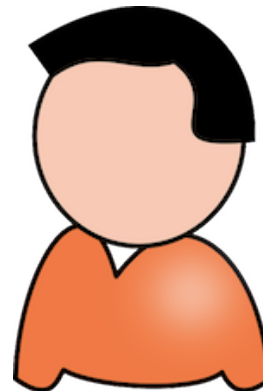
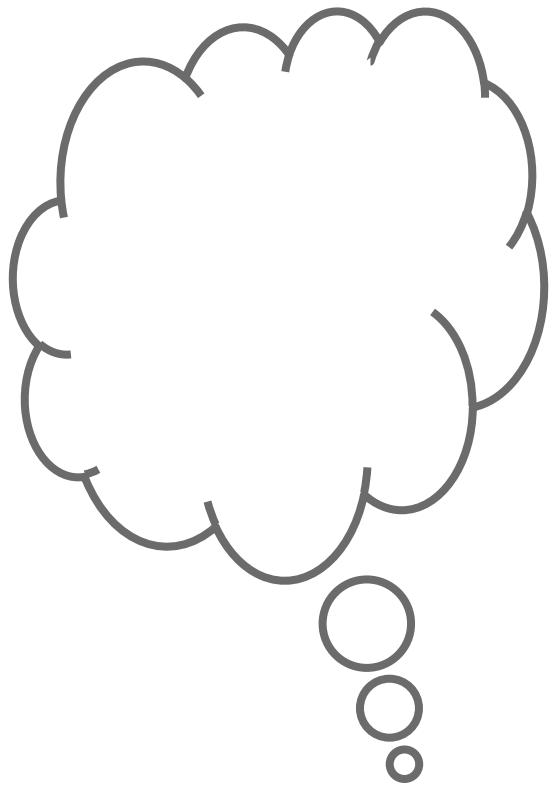


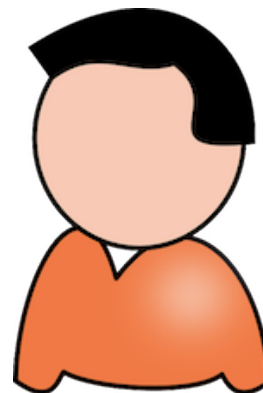
yada ...



yada ...

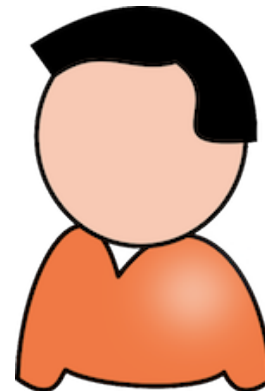






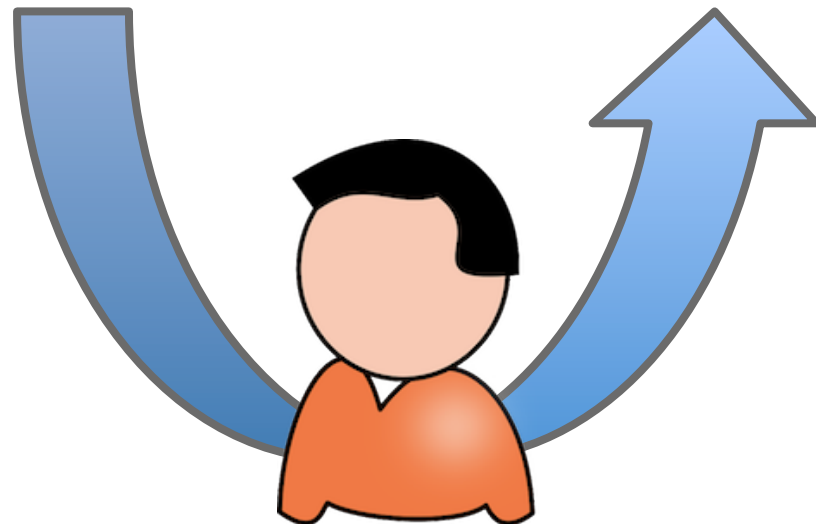


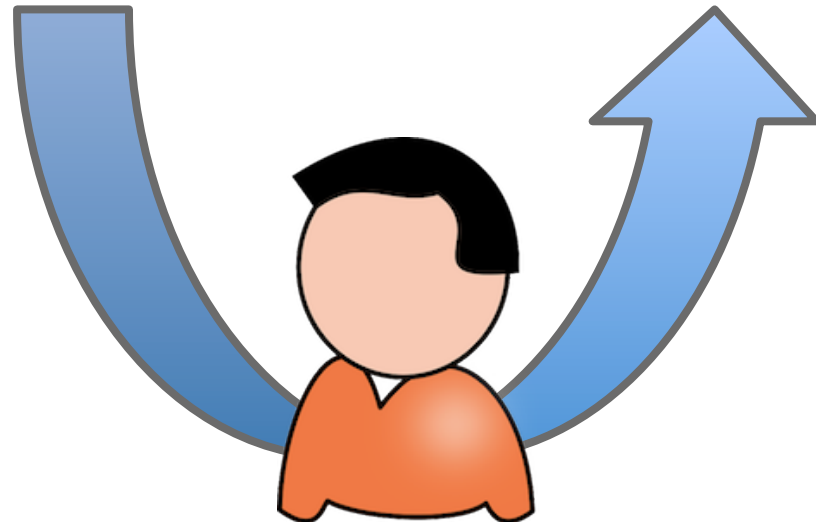
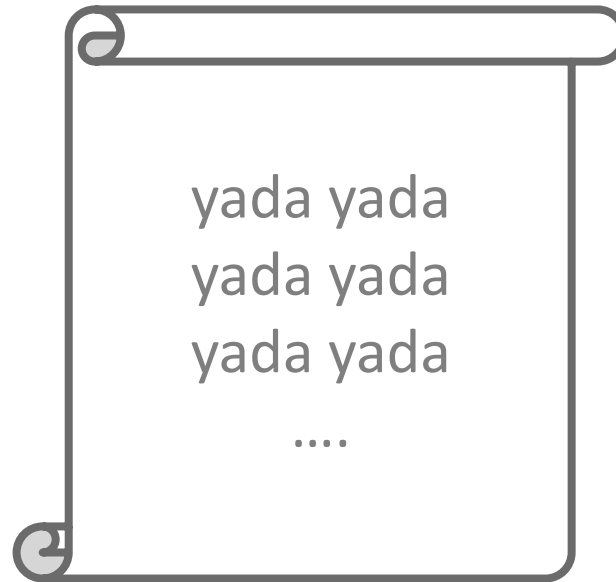
• • • •

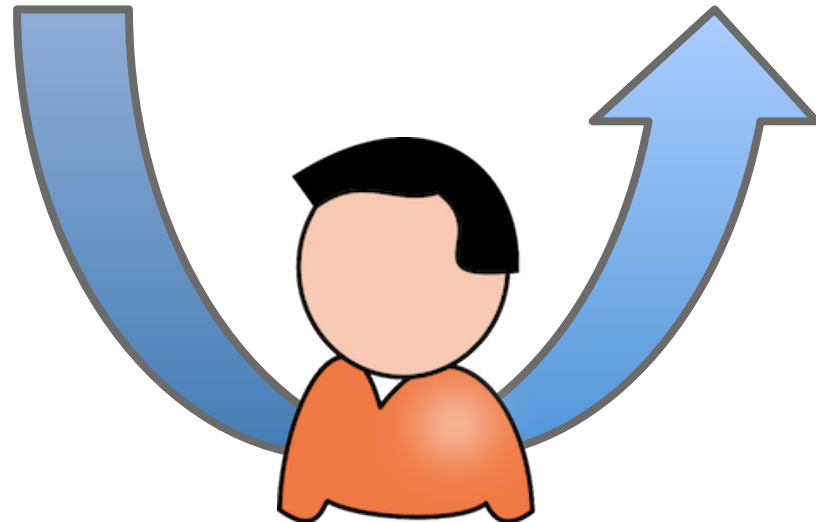
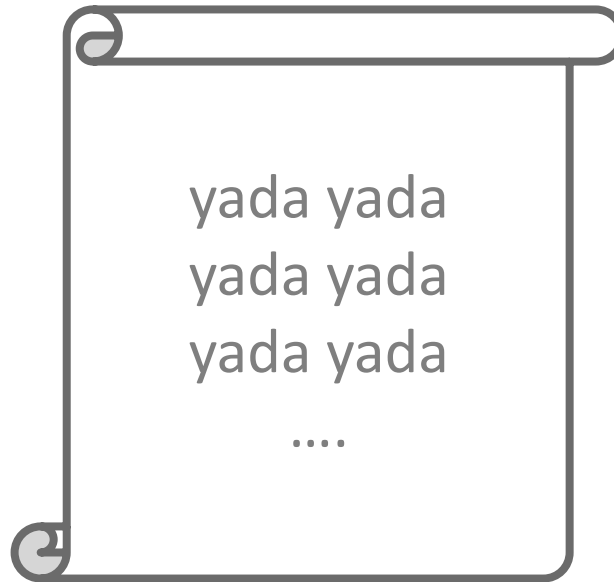




yada yada
yada yada
yada yada
....



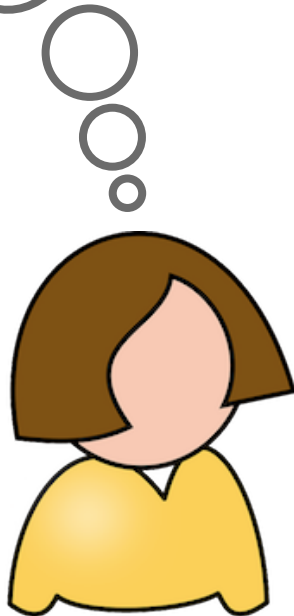




???

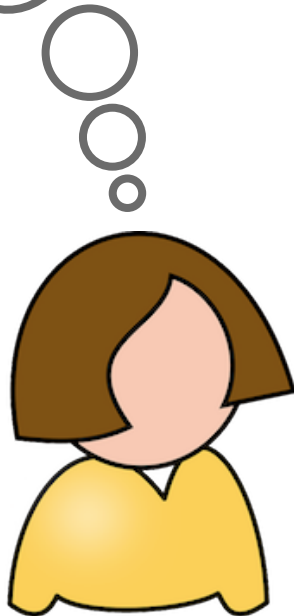


yada yada
yada yada
yada yada
....



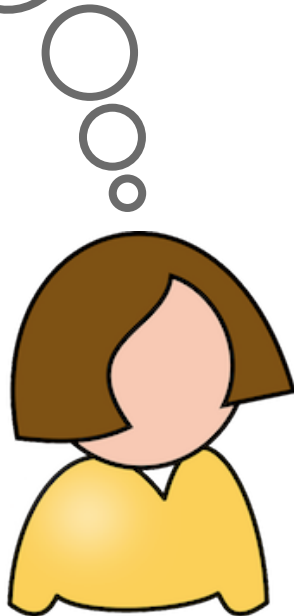
...

Find a clean knife ...



...

For each utensil:
Look at the utensil.
If it's a knife
and it's clean ...

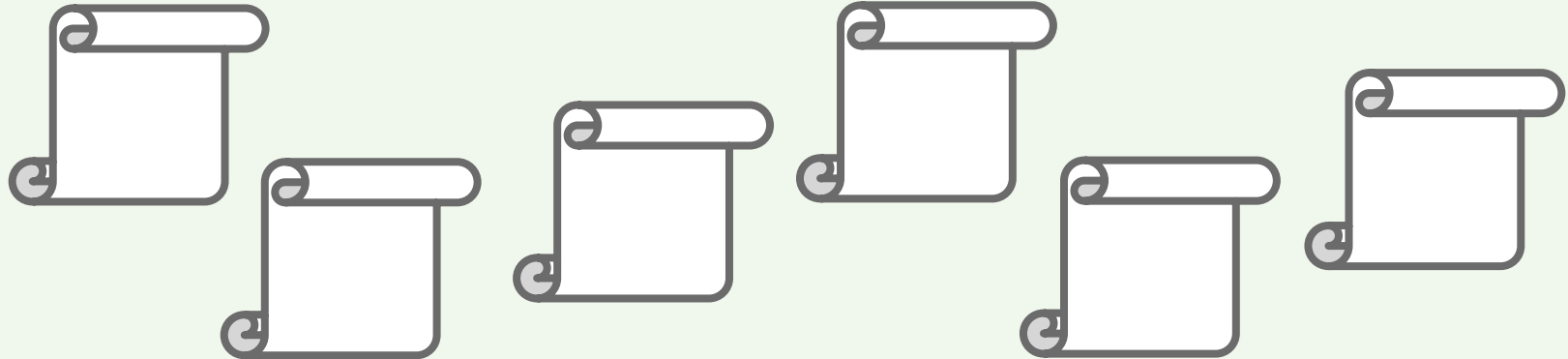


...

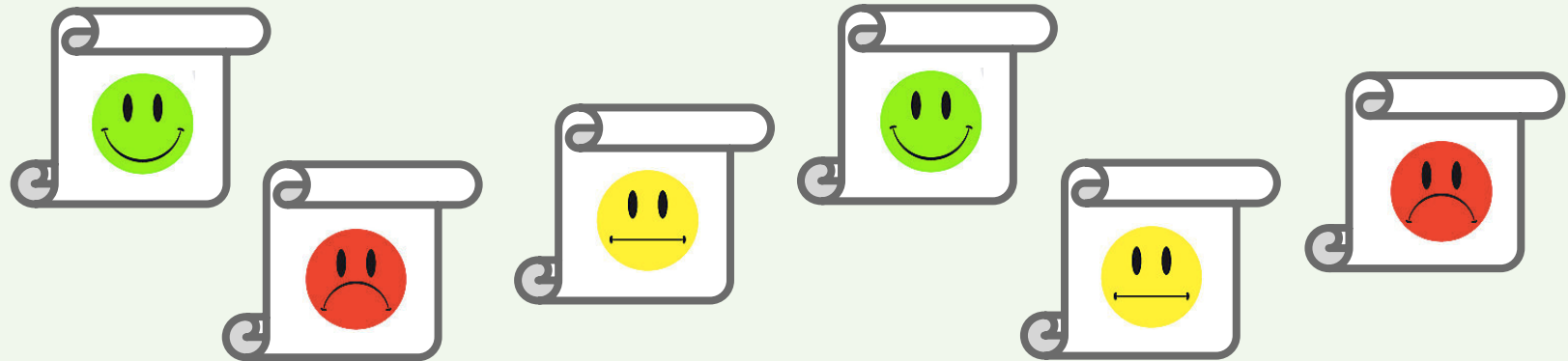
Look at 1st utensil.
If it's a clean knife ...
Otherwise,

Look at 2nd utensil.
If it's clean knife ...
Otherwise, ...

SYNTAX + SEMANTICS



SYNTAX + SEMANTICS

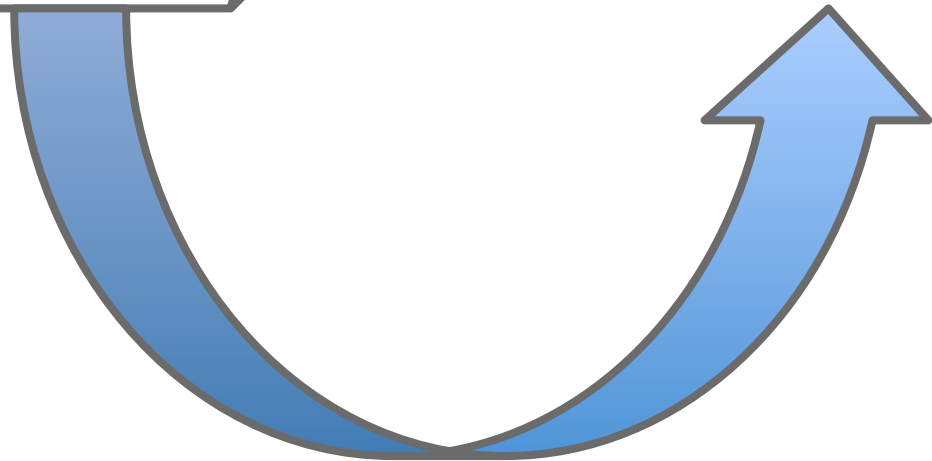


**TOOLS to JUDGE
QUALITY of TEXTS**



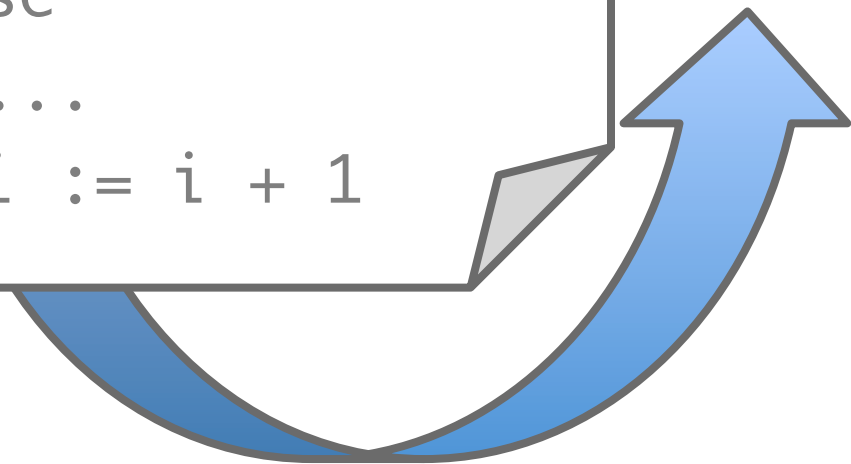


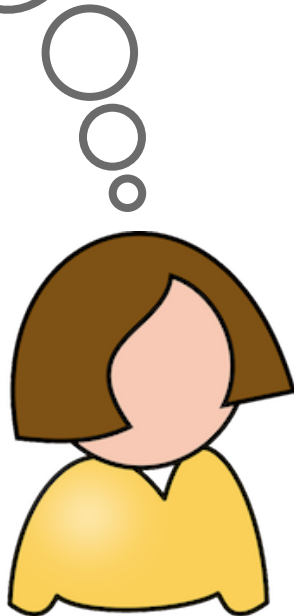
```
0111 1010  
1101 0001  
0101 1111  
...
```



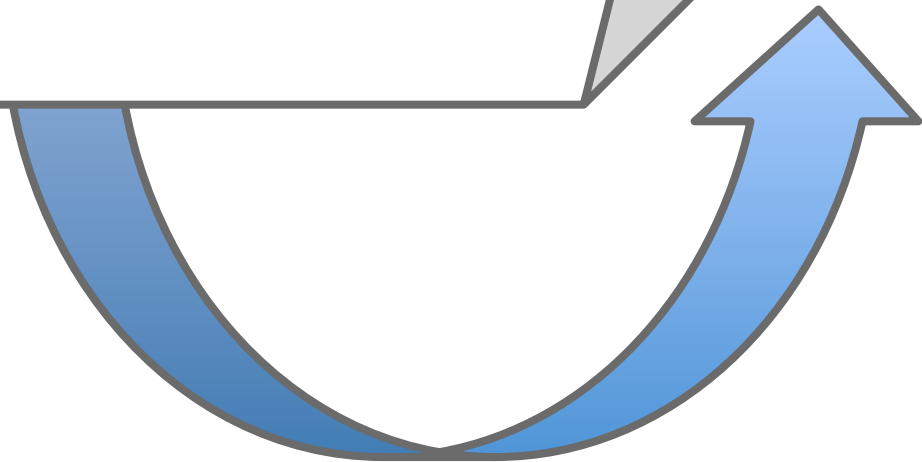


```
i := 1
done := false
while done == false
  u := utensils[i]
  if isKnife(u) and
    isClean(u)
    ...
    done := true
  else
    ...
    i := i + 1
```



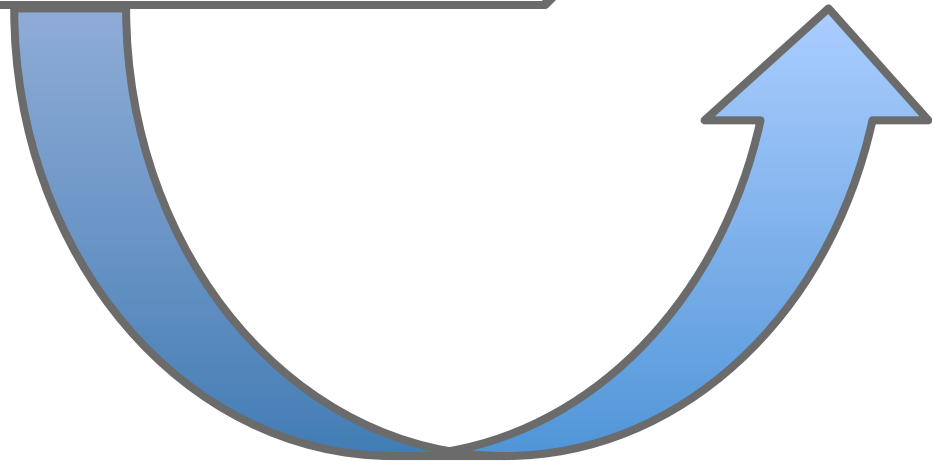


```
done := false
foreach u in utensils
  if isKnife(u) and
    isClean(u)
    ...
    done := true
else
  ...
```



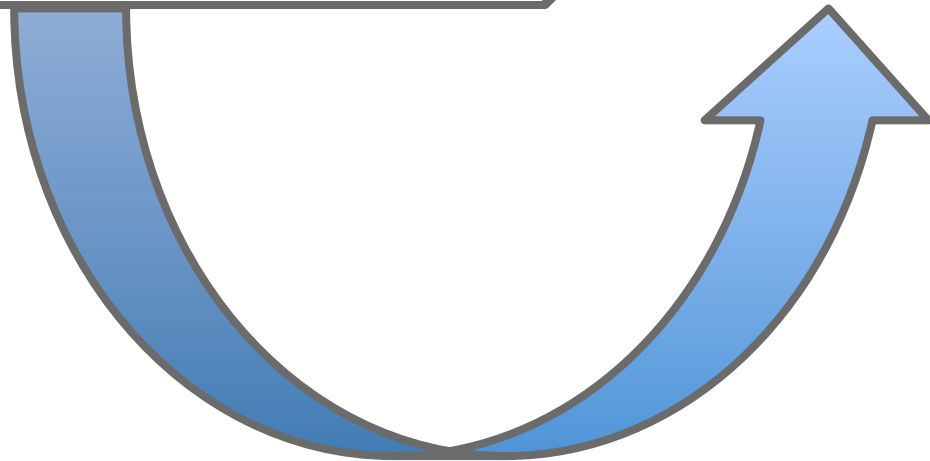


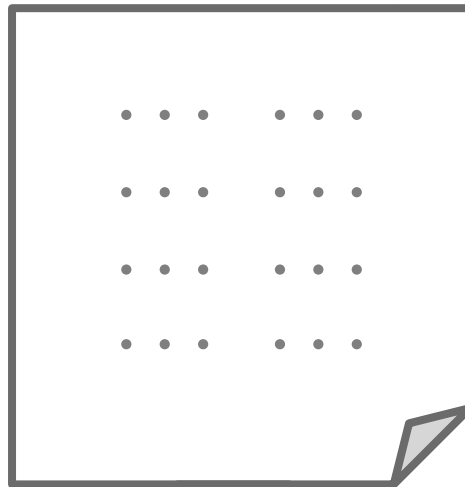
find a
utensil u
such that
 $\text{isKnife}(u)$ and
 $\text{isClean}(u)$



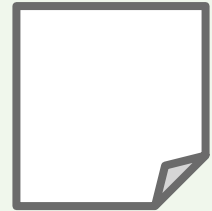
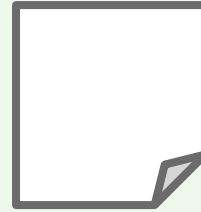
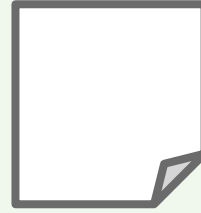
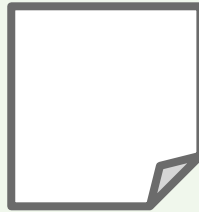
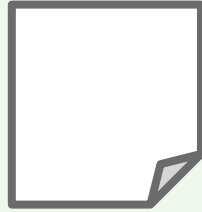
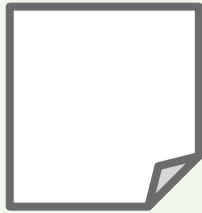


find a
utensil u
such that
 $\text{isKnife}(u)$ and
 $\text{isClean}(u)$

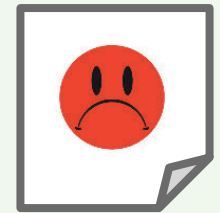
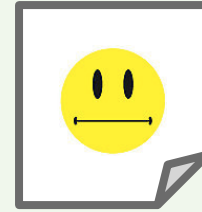
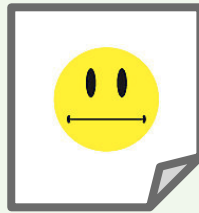
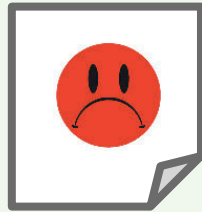
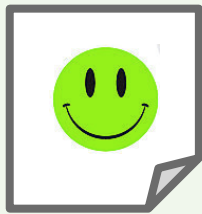




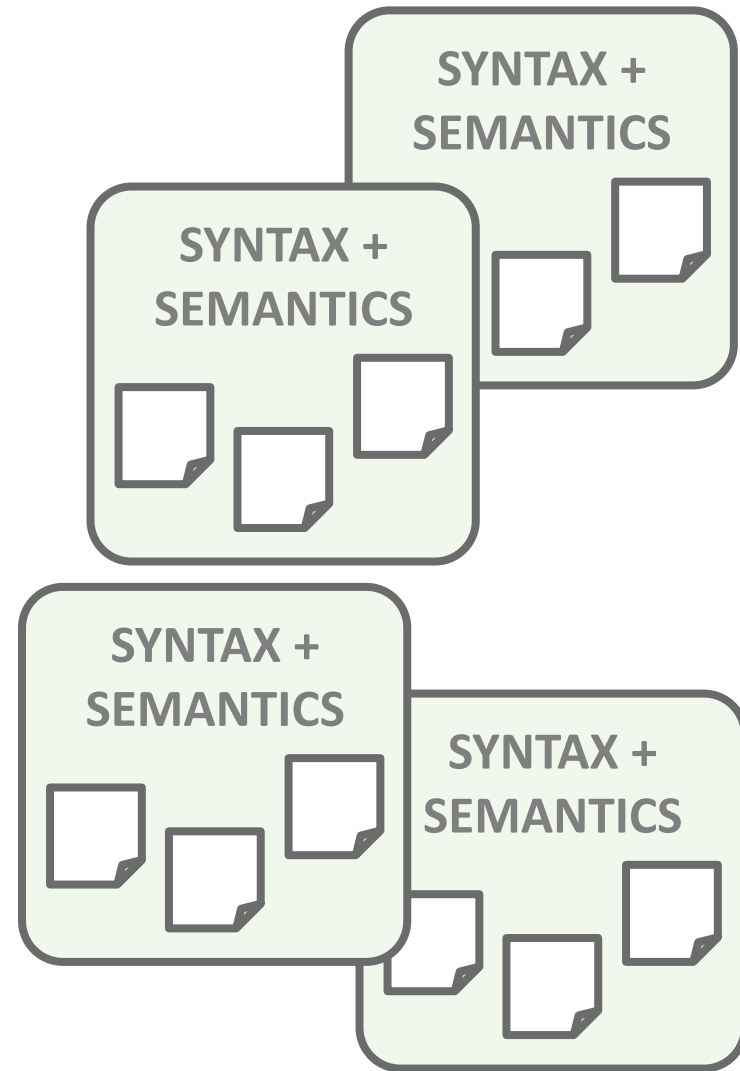
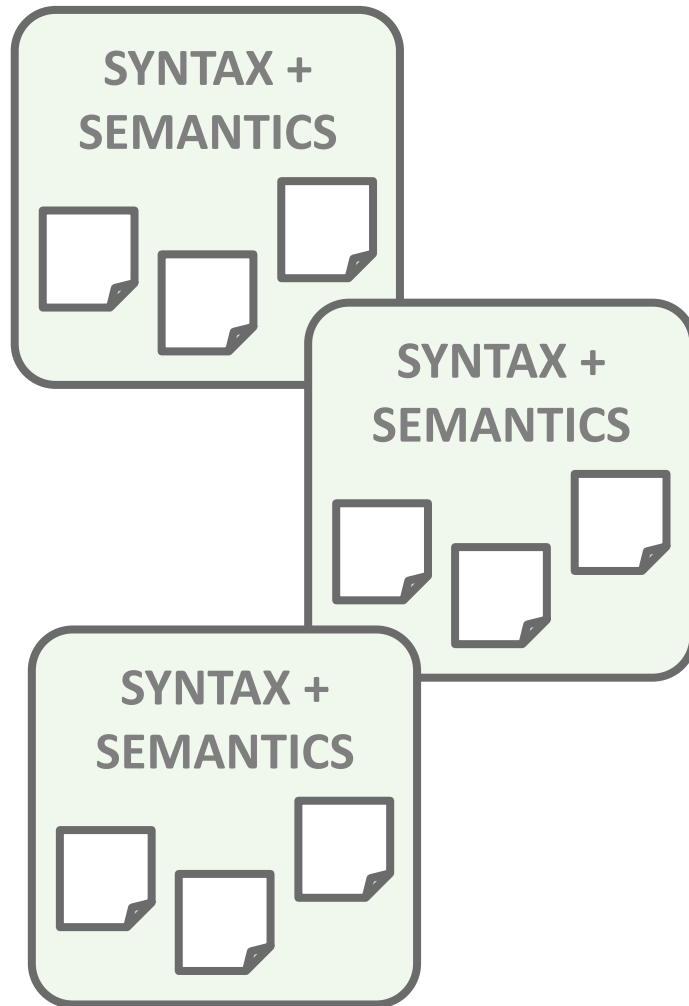
SYNTAX + SEMANTICS



SYNTAX + SEMANTICS

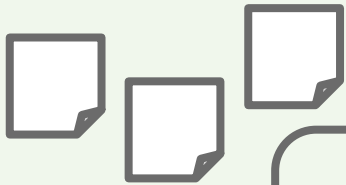


**TOOLS to JUDGE
QUALITY of PROGRAMS**

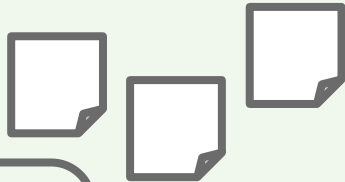


“STATIC”

SYNTAX +
SEMANTICS



SYNTAX +
SEMANTICS

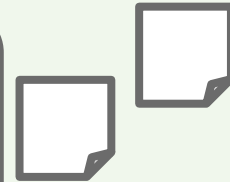


SYNTAX +
SEMANTICS

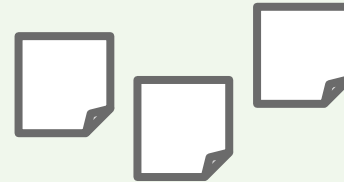


“DYNAMIC”

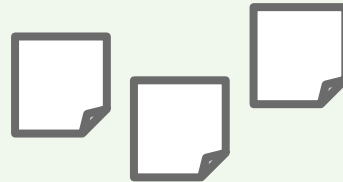
SYNTAX +
SEMANTICS



SYNTAX +
SEMANTICS



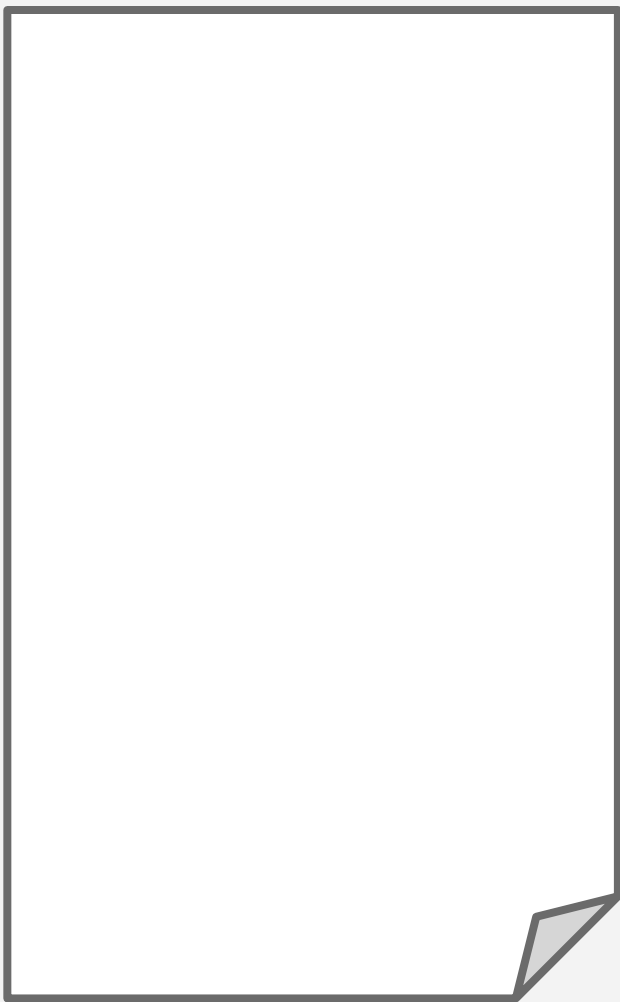
SYNTAX +
SEMANTICS



SYNTAX +
SEMANTICS



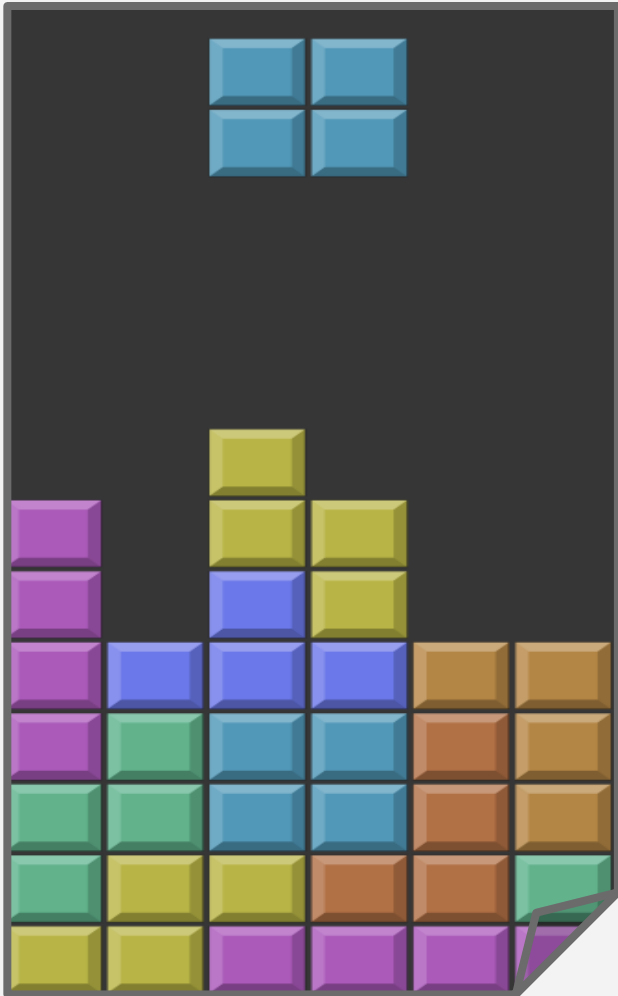
“STATIC”



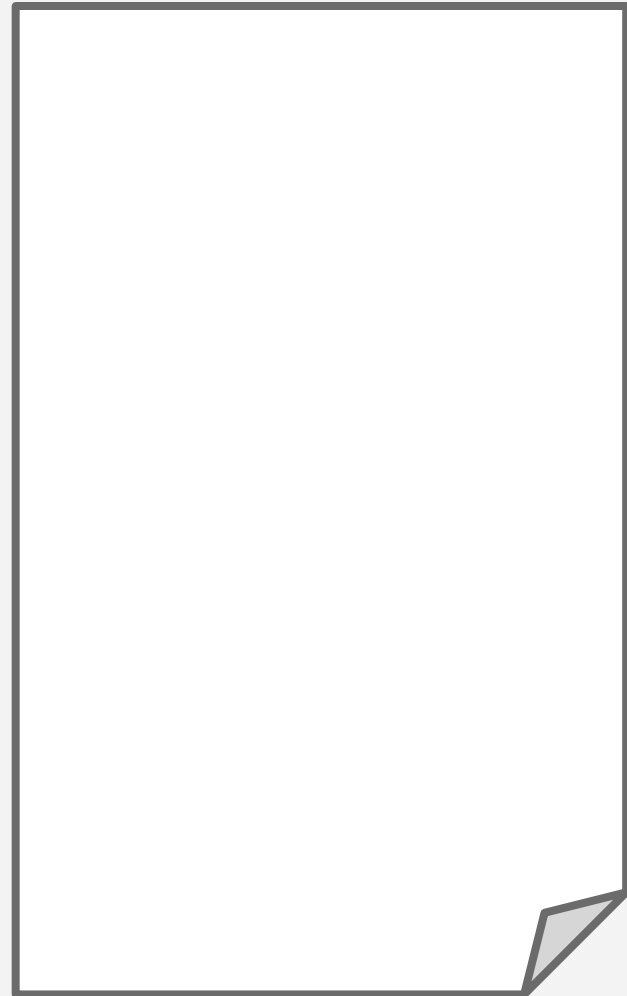
“DYNAMIC”



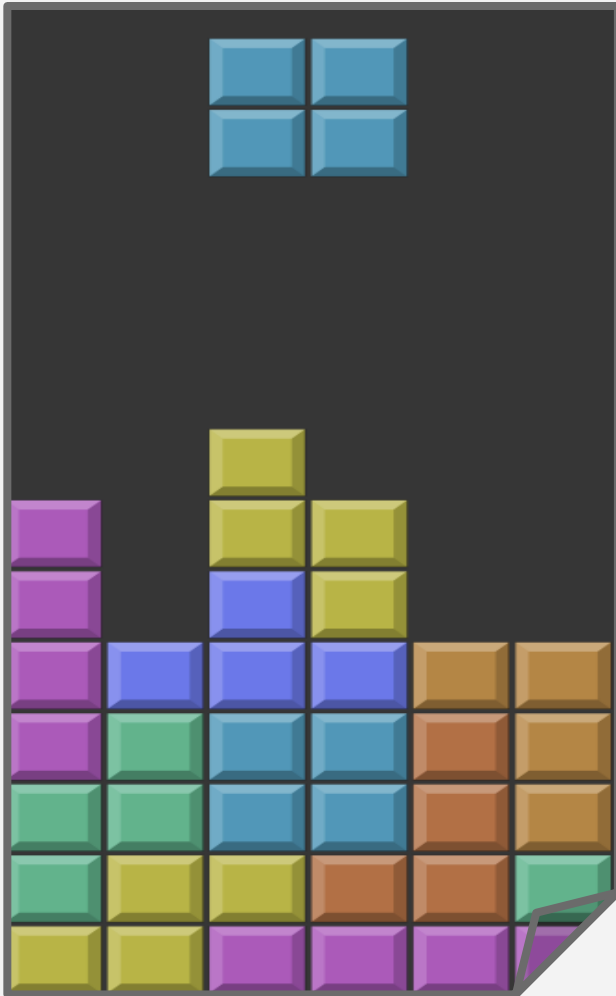
“STATIC”



“DYNAMIC”



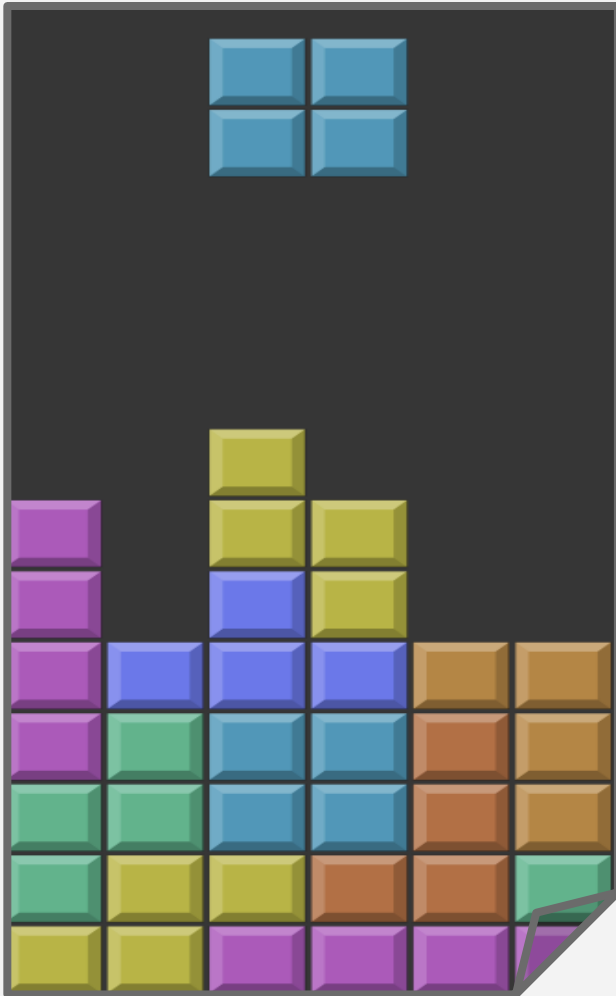
“STATIC”



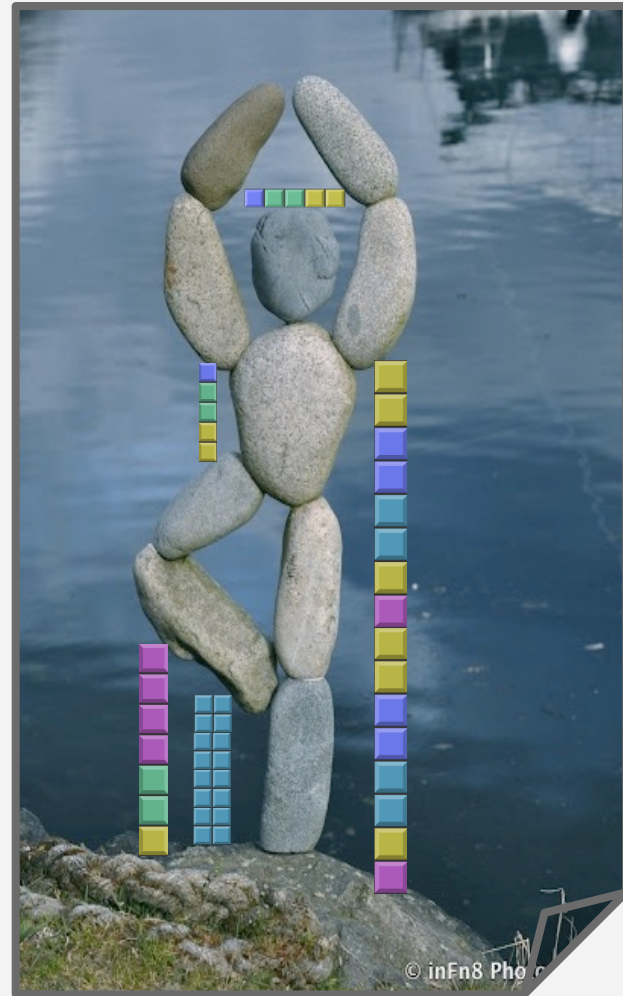
“DYNAMIC”



“STATIC”



“DYNAMIC”



Thanks!



<http://home.cmit.net/rwolbeck/programmingtutorial/code/fullscreen%20tetris.png>

<http://sbstn723.deviantart.com/art/Tetris-Blocks-162660584>

<http://its-a-green-life.com/2013/02/10/beautiful-pebblestone-art-at-winslow-wharf-marina/>

<http://dailypicksandflicks.com/wp-content/uploads/2011/03/Kitchen-mess.jpg>

<http://en.wikipedia.org/wiki/File:Peanut-Butter-Jelly-Sandwich.png>

<http://www.nytimes.com/2012/10/24/dining/making-a-meal-out-of-peanut-butter-and-pickles.html>

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