

Um ambiente em nuvem para criação colaborativa de jogos

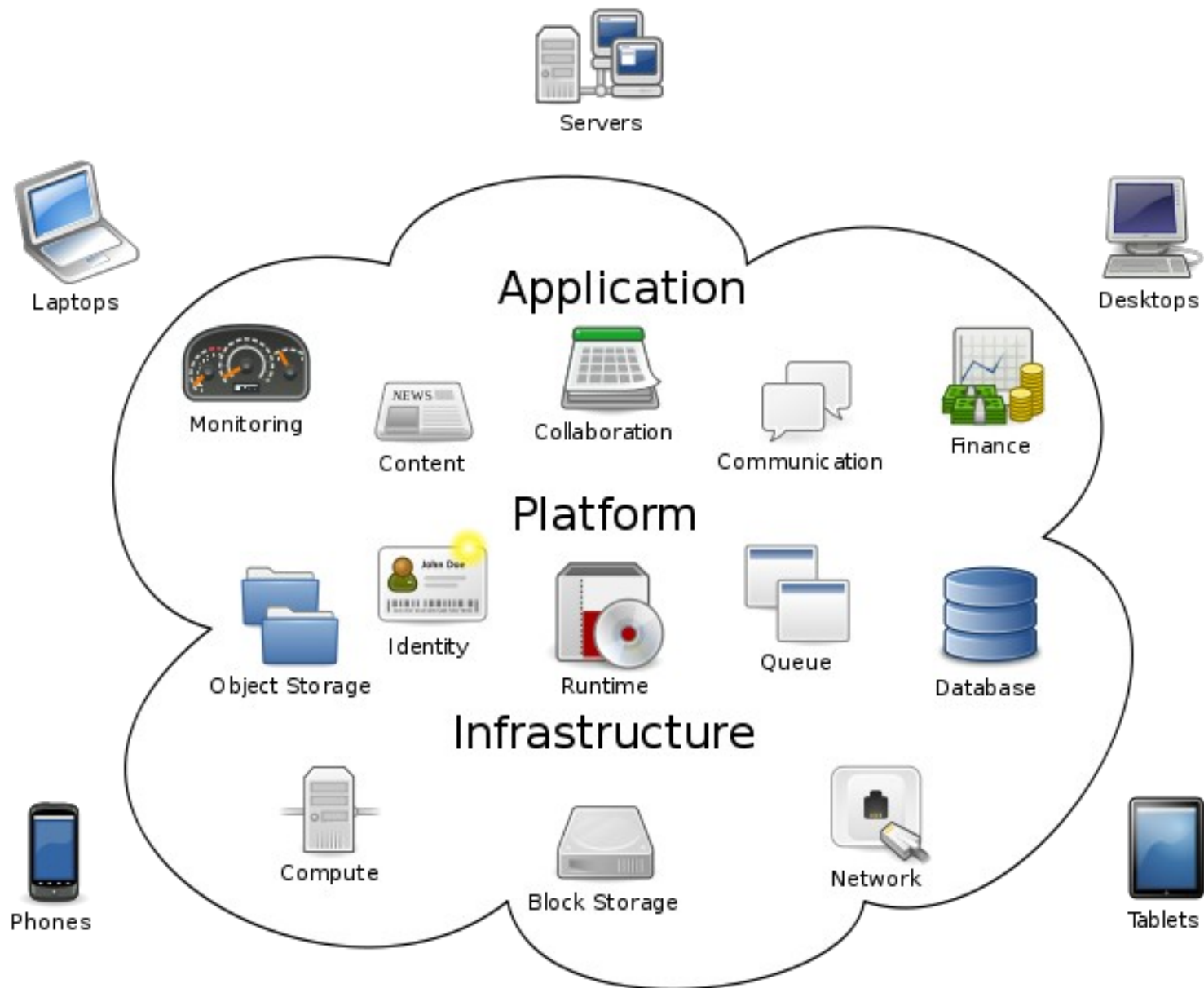
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Orientador: Prof. Flávio Soares Corrêa da Silva

HTML

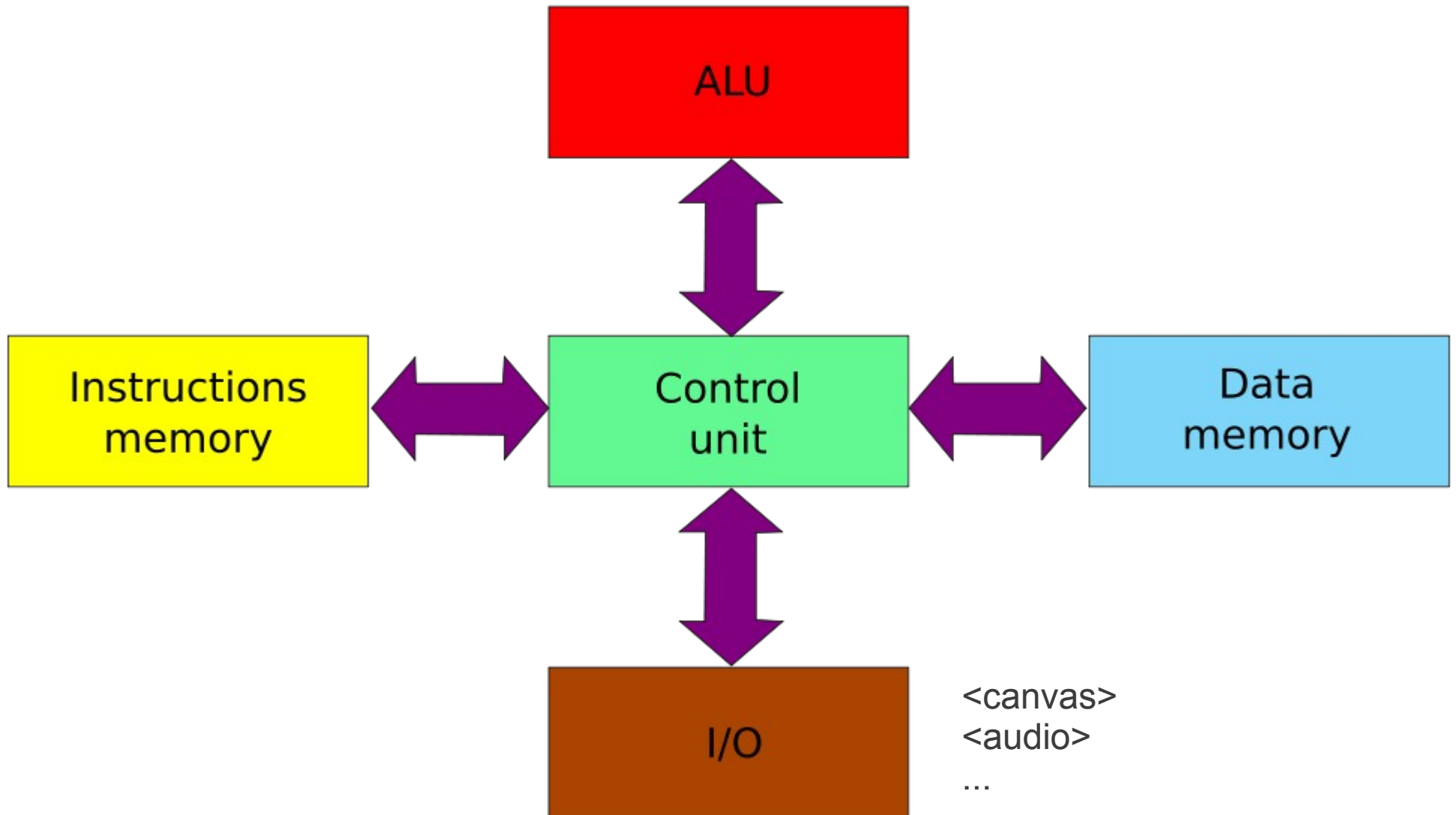


Fonte: <http://www.w3.org/html/logo/> (W3C - CC-BY 3.0)



Cloud Computing

Máquina Virtual

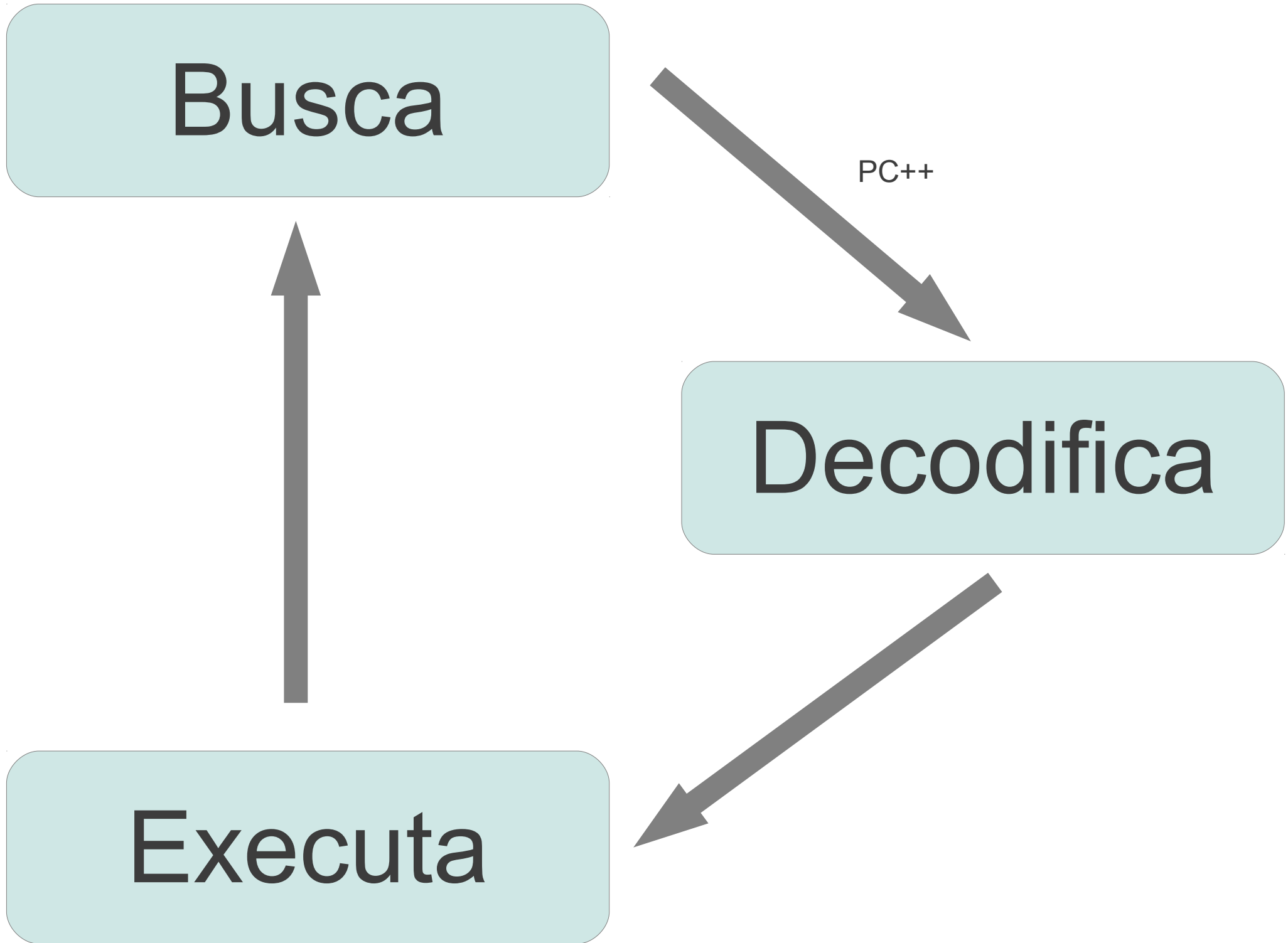


Busca

PC++

Decodifica

Executa

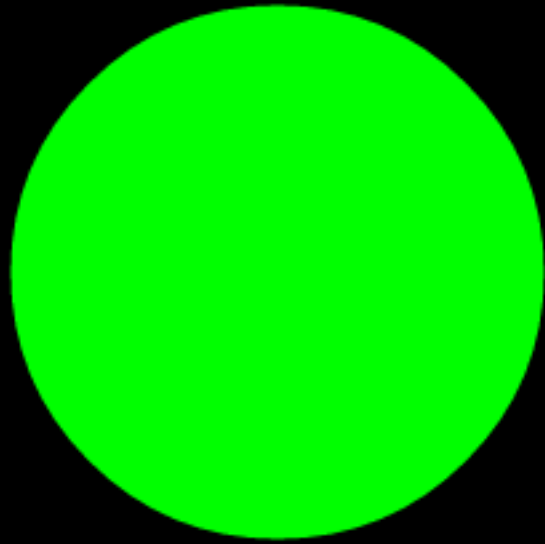


(opcode, operand1, operand2)

```
_fat:
push bp
mov bp, sp
mov adr, bp
add adr, 3
load a, adr
mov b, 1
scmp a, b
mov a, true
jge L0
mov a, false
L0:
lcmp a, false
je L1
mov adr, bp
add adr, 3
load a, adr
push a
mov adr, bp
add adr, 3
load a, adr
mov b, 1
sub a, b
push a
call _fat
pop a
mov b, fun
pop a
mul a, b
mov fun, a
jmp L3
L1:
mov fun, 1
L3:
pop bp
ret
```



Hello, world!



' ' Draws a filled circle with the specified
centre and radius

' ' @param x x-coordinates of its center

' ' @param y y-coordinate of its center

' ' @param radius the radius of the circle

fun circlefill(x, y, radius)

__asm "mov adr, bp"

__asm "add adr, 3"

__asm "load a, adr" ' a = x

__asm "add adr, 1"

__asm "load b, adr" ' b = y

__asm "add adr, 1"

__asm "load c, adr" ' c = radius

__asm "push c"

__asm "push b"

__asm "push a"

__asm "push 14"

__asm "int 7"

endfun

Compilador



Análise léxica

(nome-token, valor-token)

Análise léxica

vidas = vidas + 1



(IDENTIFIER, vidas), (ASSIGNOP, =),
(IDENTIFIER, vidas), (BINARYOP, +),
(NUMBER, 1), (NEWLINE, \$0A)

Análise sintática

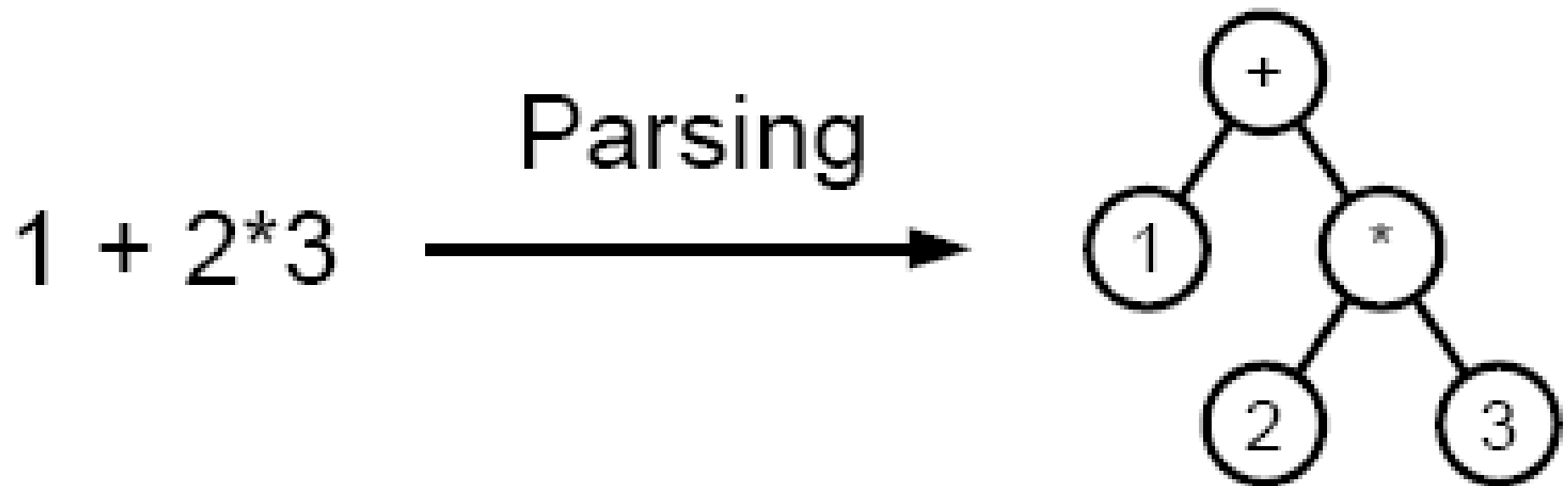
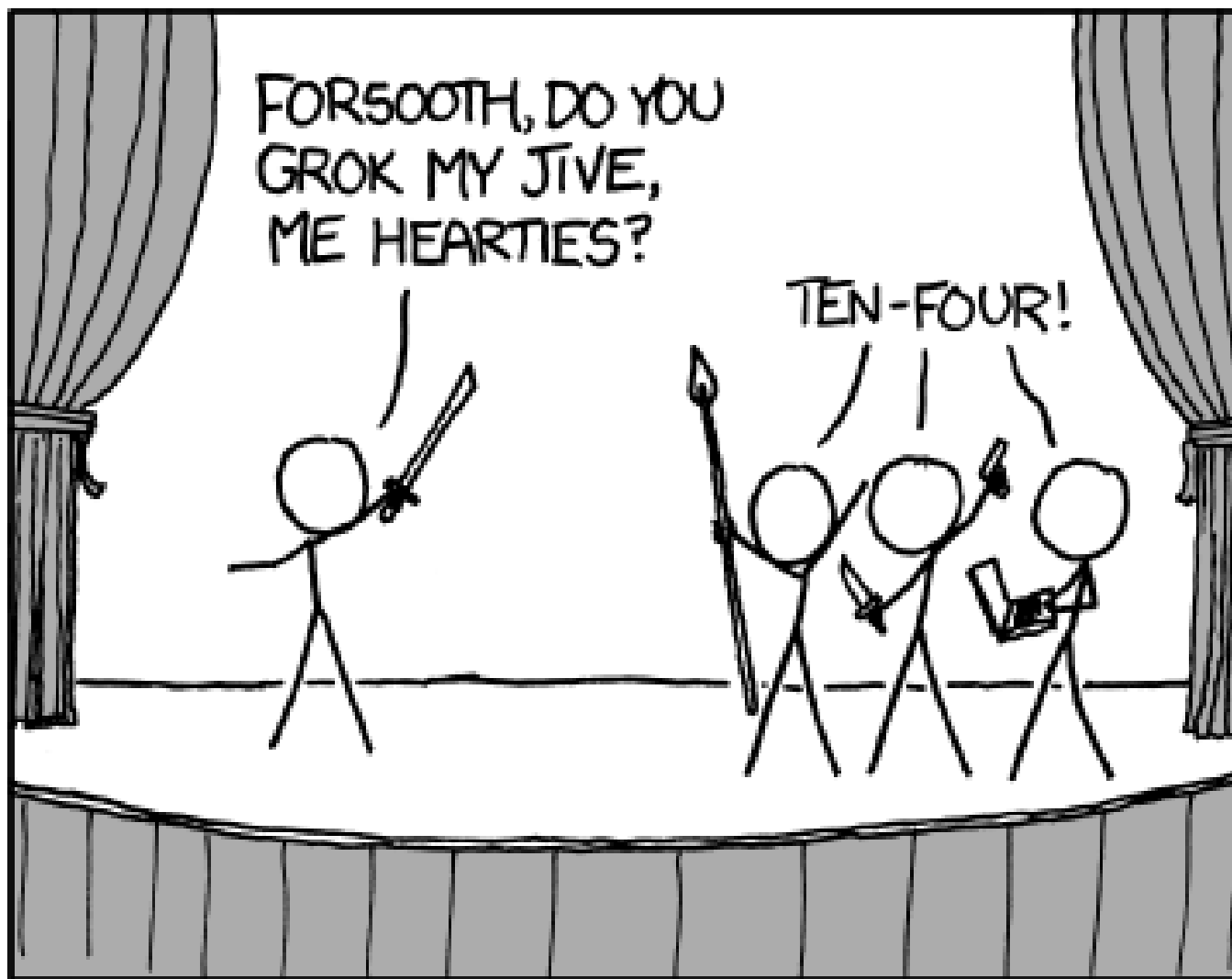


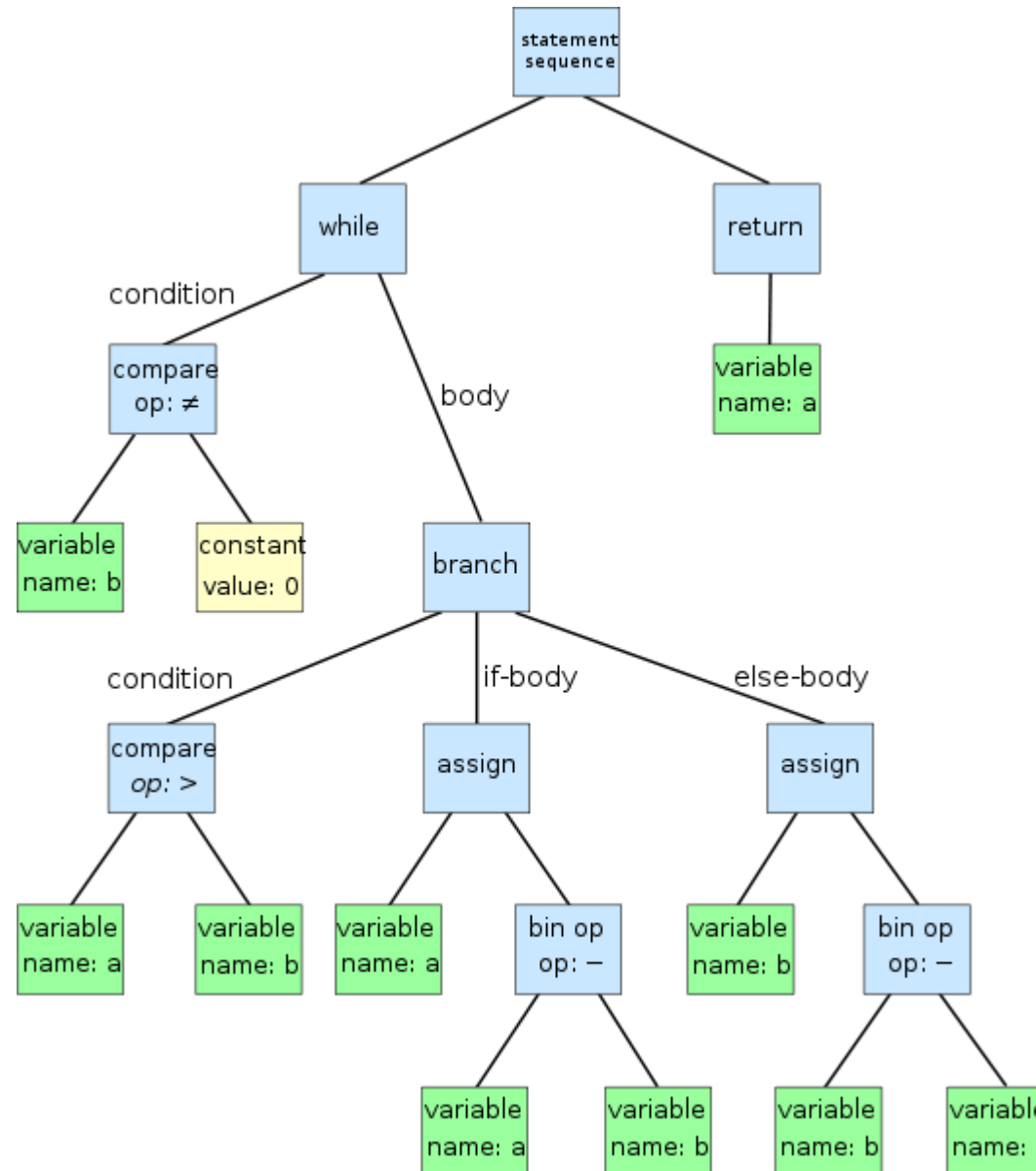
Tabela de símbolos



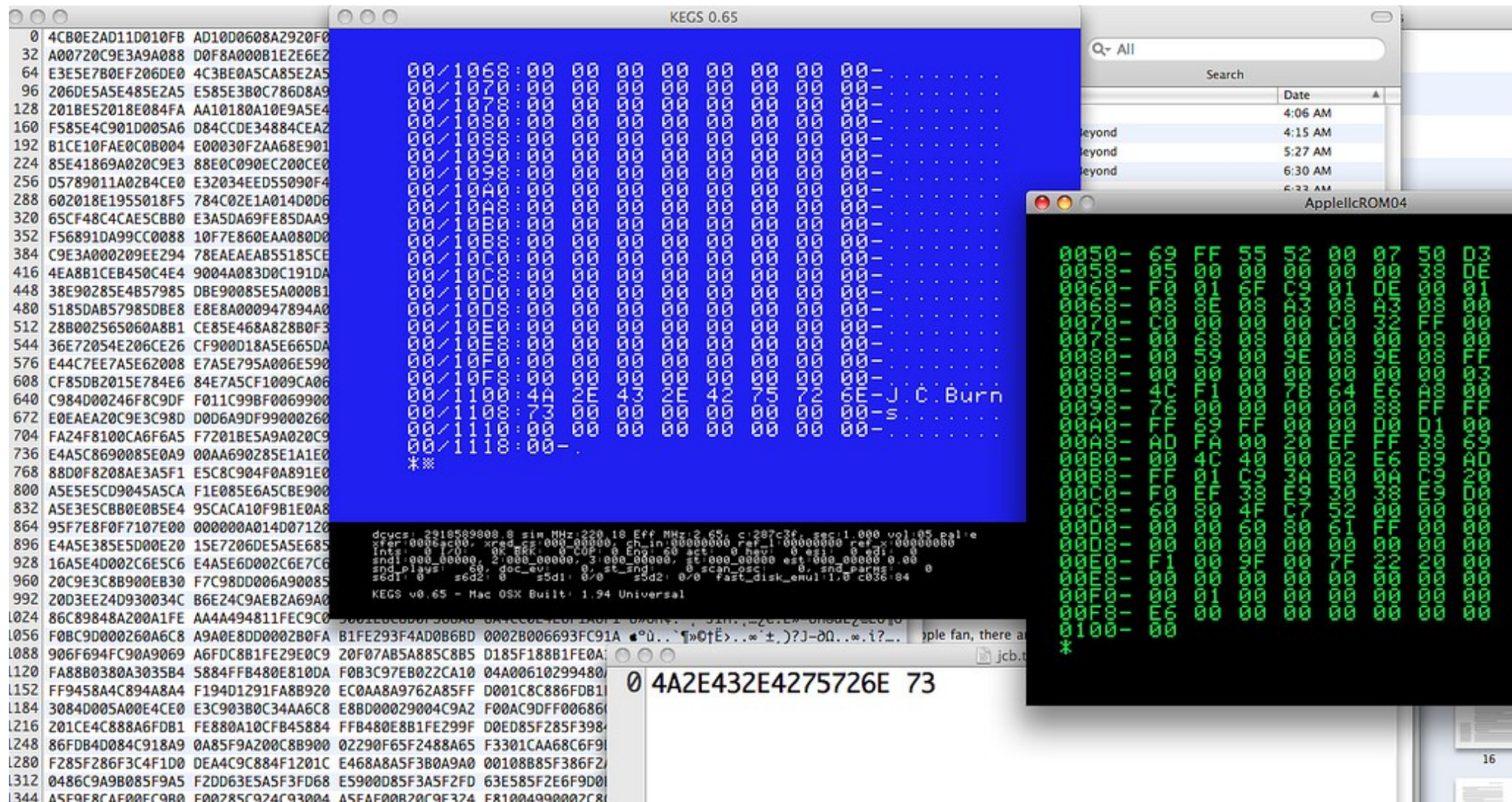
Análise semântica



Geração de código



Geração de código



Sistema web

gameprototyper.com alpha

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Play now!

The Language pt.1

The Language pt.2

The Language pt.3

The Language pt.4

Main Loop

Every game that is not text-based, i.e., that has movement and/or animations, should have the following structure:

```
gameMode
do
  cls
  <game logic>
  <render calls>
  flip
loop
```

See "Video routines" for more details. Example:

```
' moving a ball at
' a constant speed
gameMode
do
  cls

  x += 10
  y = 240
  z = 20
```

Free space: 58%

Images

asteroids.png

basic_enemy.png

bg.jpg

bold.png

bomb.png

brain.png

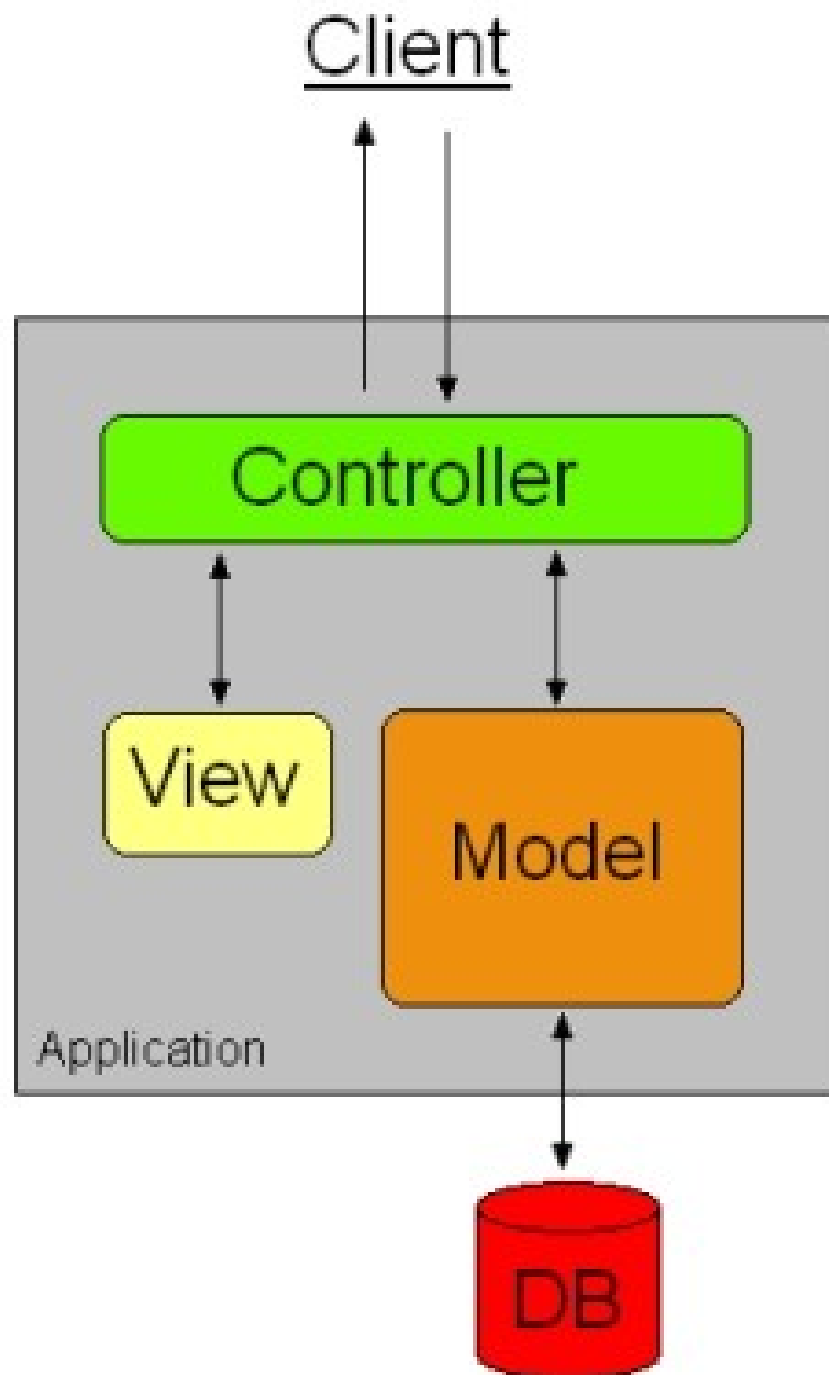
dis.png

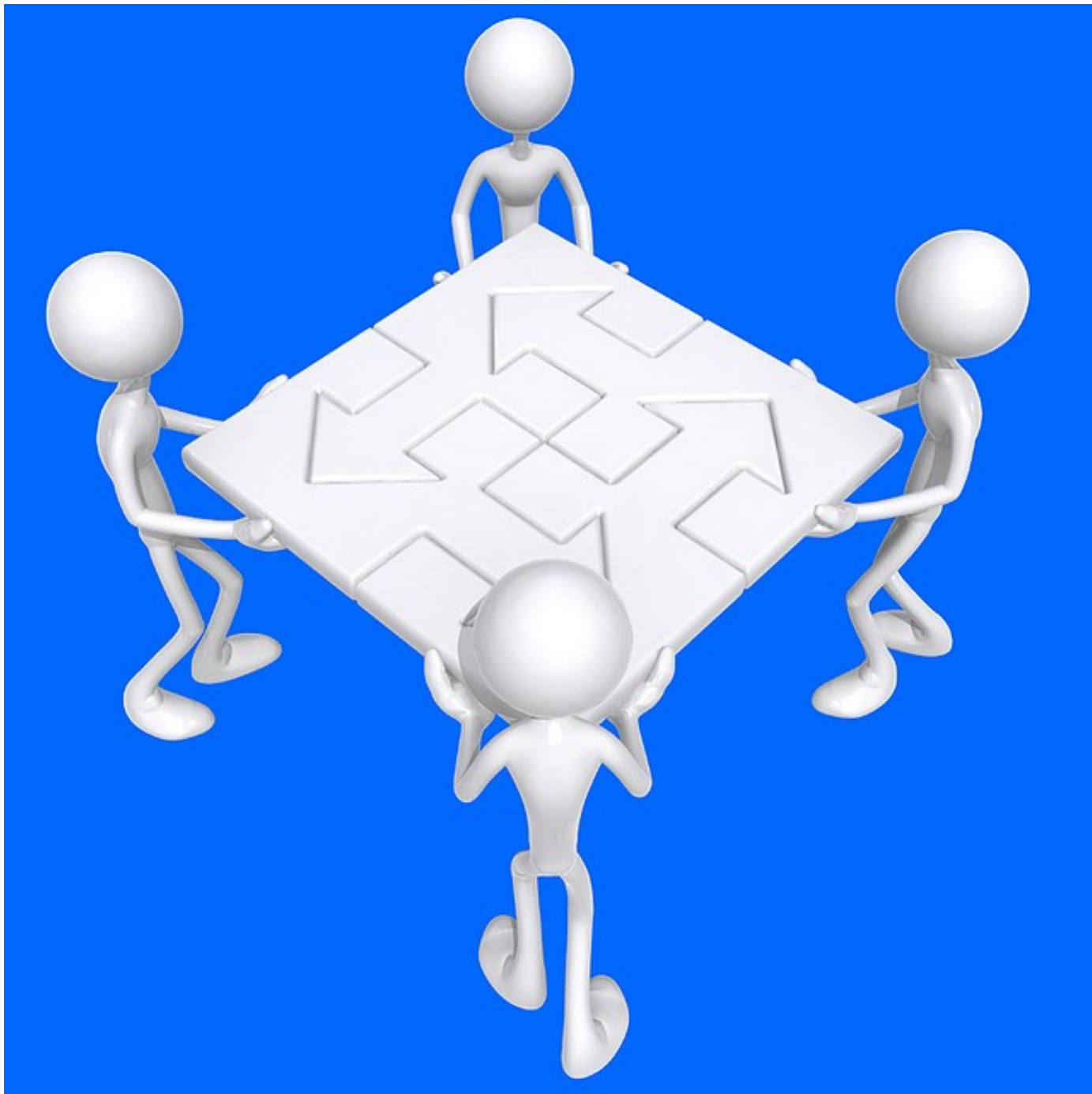
Upload asset

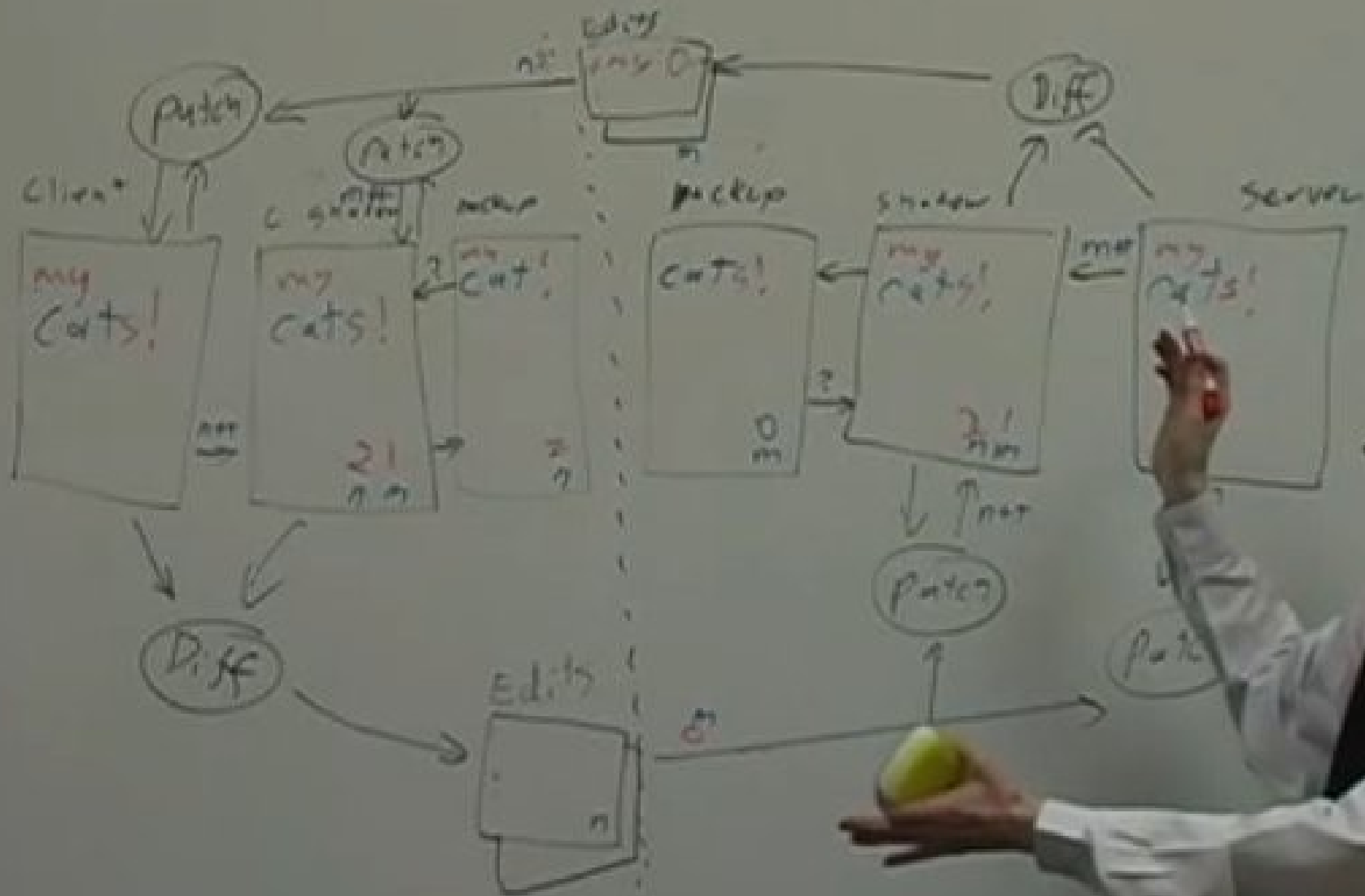
```
582
583   elseif g_ess >= 11 and g_ess < 12 then
584
585     ' STEP 12: a LOT of stronger robots!
586     if timerHasExpired(g_est) then
587       spawnEnemy "jug2", 680, random(0, screenHeight())
588       g_ess += 0.1
589       resetTimer g_est
590       if g_ess >= 12 then setTimerInterval g_est, 7000
591     endif
592
593   elseif g_ess >= 12 and g_ess < 13 then
594
595     ' STEP 13: wait...
596     if timerHasExpired(g_est) then
597       if numberOfEnemies() = 0 then
598         g_ess = 13
599         playSample "danger.ogg"
600         displayBlinkingText "DANGER!"
601         setTimerInterval g_est, 5000
602       else
603         resetTimer g_est
604       endif
605     endif
606
607   elseif g_ess >= 13 and g_ess < 14 then
608
609     ' STEP 14: spawn the boss
610     if timerHasExpired(g_est) then
611       g_brain = spawnEnemy("brain", 770, 240)
612       setTimerInterval g_est, 1000
613       g_ess = 14
614     endif
615
616   elseif g_ess >= 14 and g_ess < 15 then
617
618     ' STEP 15: defeat the boss
619     if not isValidTable(g_brain) then
620       setTimerInterval g_est, 5000
621       g_ess = 15
622       for k in g_enemies
623         enemy = g_enemies[k]
624         if enemy["type"] = "asteroid" then
625           explode_asterX(enemy["aster"], enemy["aster"])
```

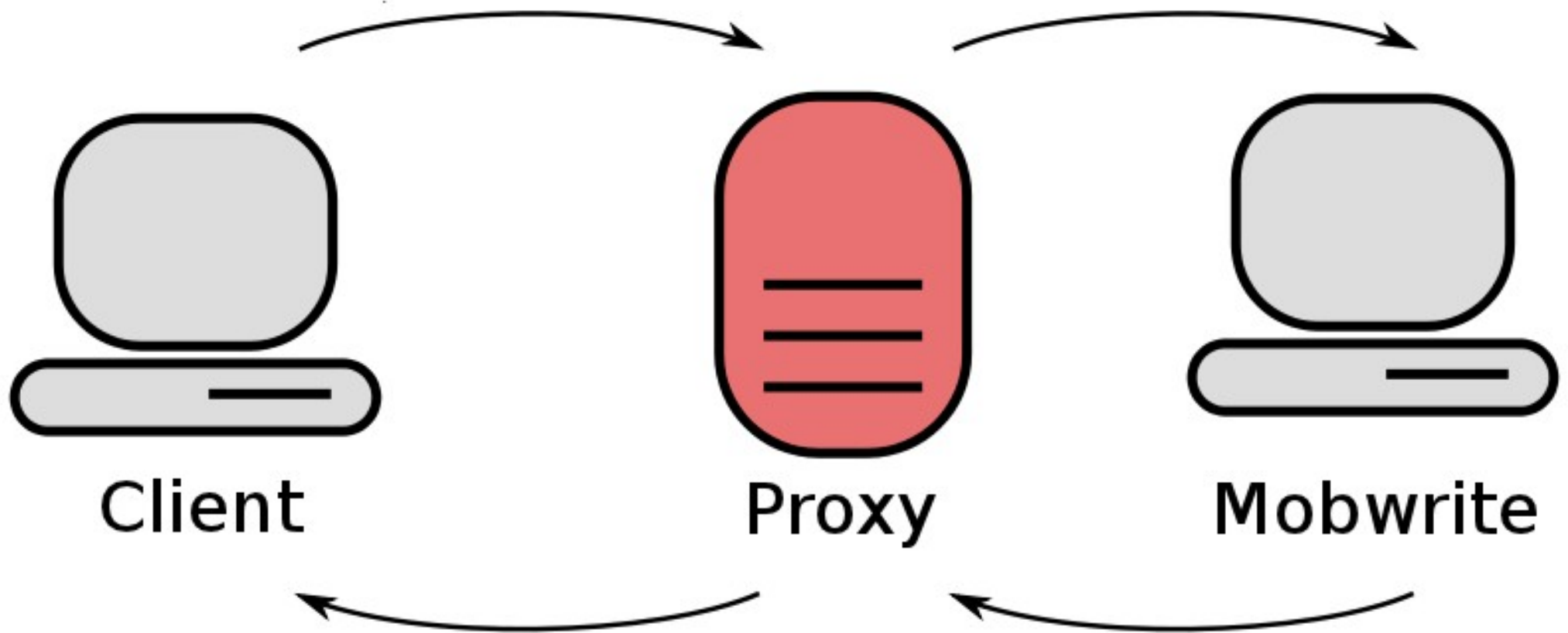


CodeIgniter









Client:

```
u:fraser  
F:34:abcdef  
d:41:=200 -7 +Hello =100  
<blank>
```

Server:

```
f:42:abcdef  
d:34:=305  
<blank>
```

Client:

```
u:fraser  
F:34:abcdef secret_key  
d:41:=200 -7 +Hello =100  
<blank>
```

Server:

```
f:42:abcdef secret_key  
d:34:=305  
<blank>
```

HTML



Mobwrite



- the end -

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