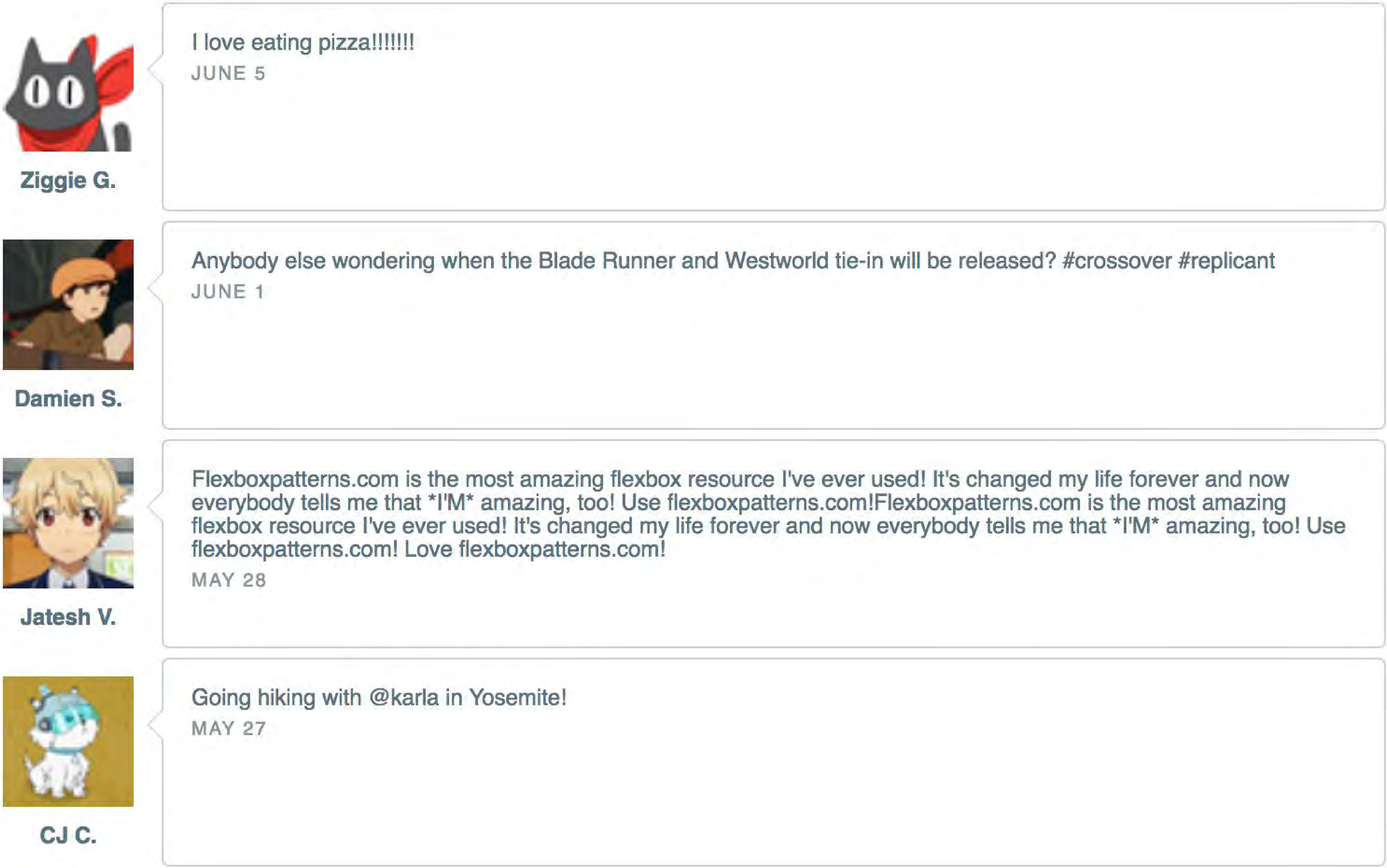
Swift 将 Web 代码
转成60帧满帧原生应用的方案及实践

戴铭
滴滴出行技术专家

www.top100summit.com



Ziggie G.

I love eating pizza!!!!!!!

JUNE 5

Damien S.

Anybody else wondering when the Blade Runner and Westworld tie-in will be released? #crossover #replicant

JUNE 1

Jatesh V.

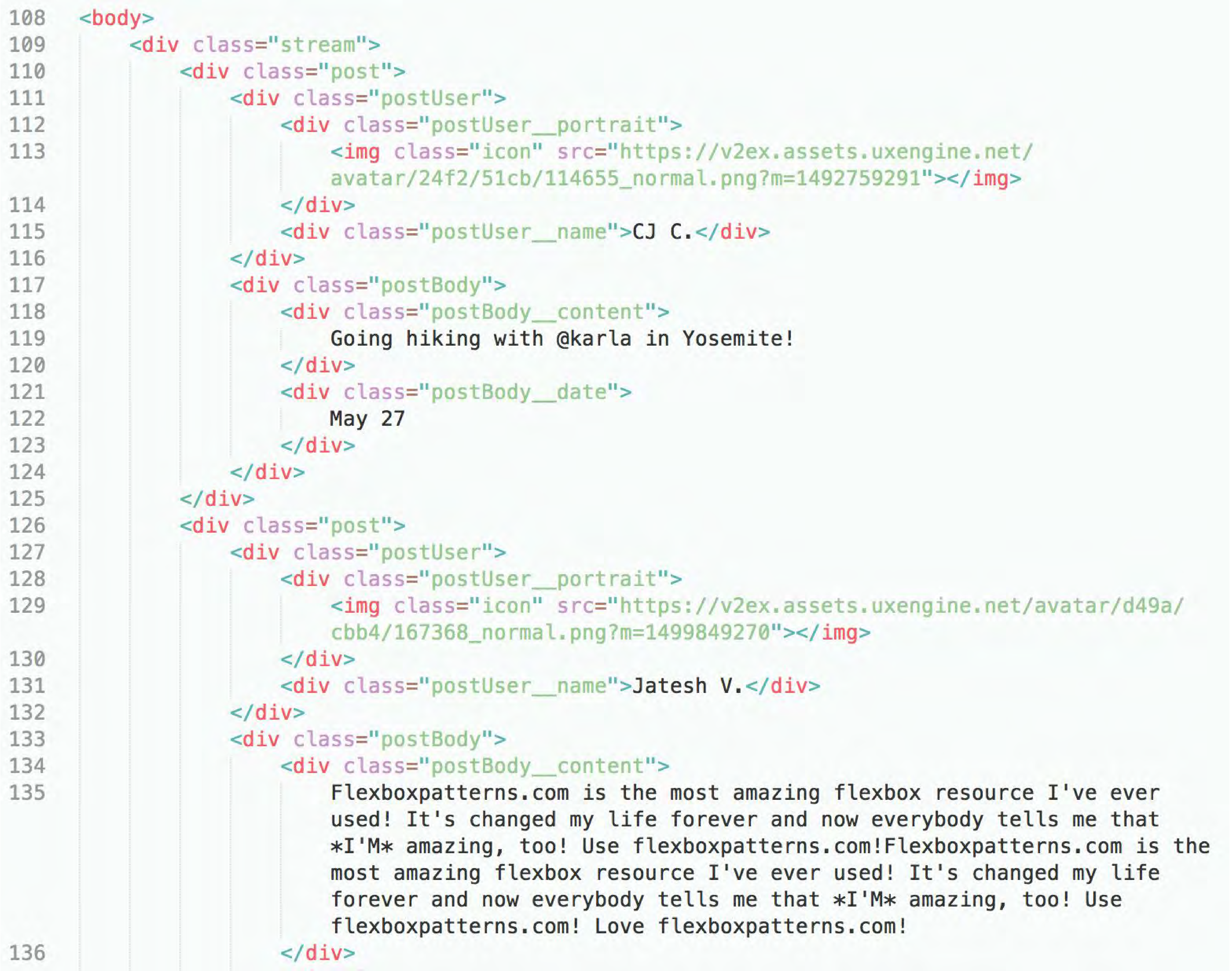
Flexboxpatterns.com is the most amazing flexbox resource I've ever used! It's changed my life forever and now everybody tells me that *I'M* amazing, too! Use flexboxpatterns.com!Flexboxpatterns.com is the most amazing flexbox resource I've ever used! It's changed my life forever and now everybody tells me that *I'M* amazing, too! Use flexboxpatterns.com! Love flexboxpatterns.com!

MAY 28

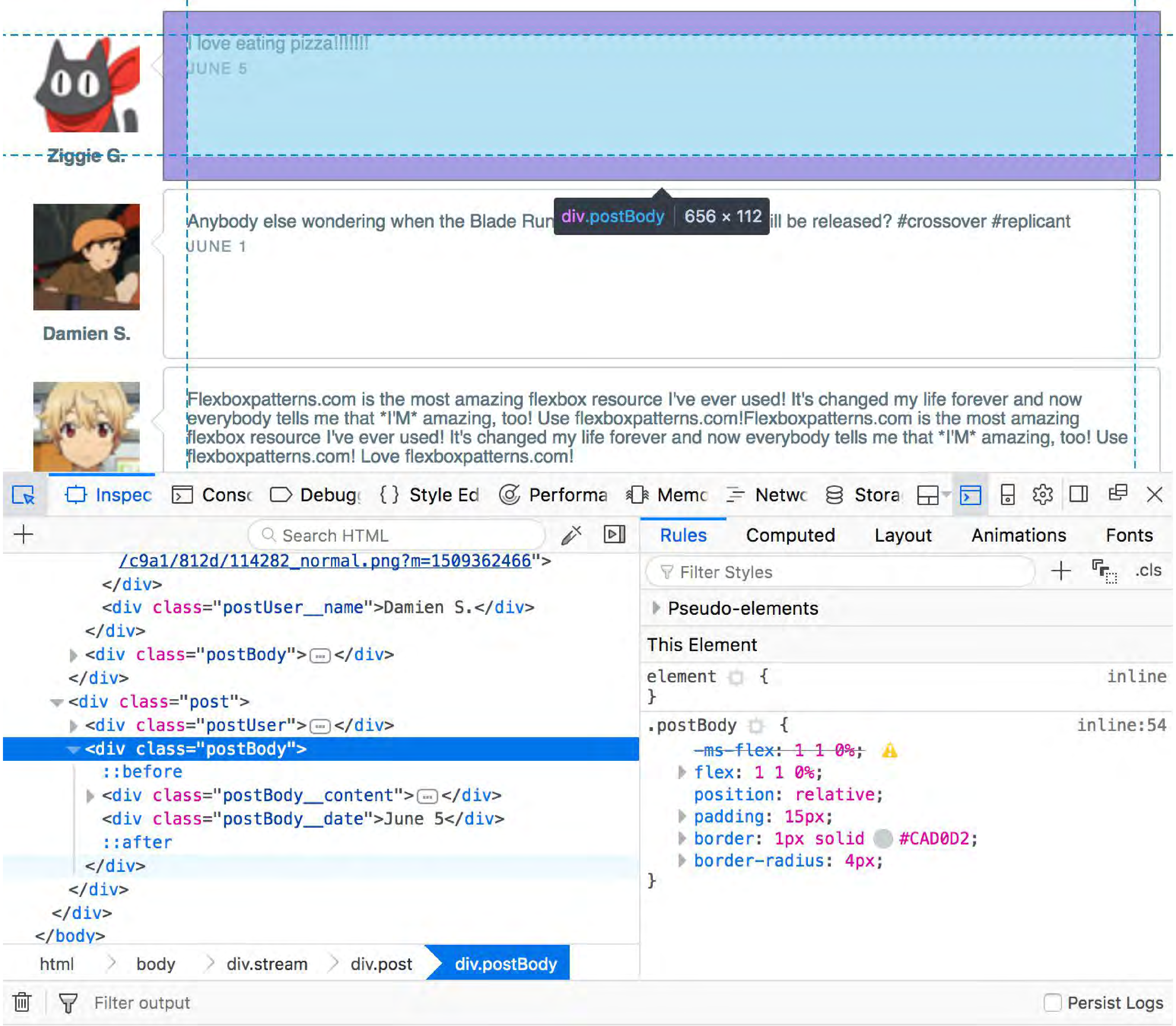
CJ C.

Going hiking with @karla in Yosemite!

MAY 27



```html
<body>
    <div class="stream">
        <div class="post">
            <div class="postUser">
                <div class="postUser__portrait">
                    <img class="icon" src="https://v2ex.assets.uxengine.net/avatar/24f2/51cb/114655_normal.png?m=1492759291"></img>
                </div>
                <div class="postUser__name">CJ C.</div>
            </div>
            <div class="postBody">
                <div class="postBody__content">
                    Going hiking with @karla in Yosemite!
                </div>
                <div class="postBody__date">
                    May 27
                </div>
            </div>
        </div>
        <div class="post">
            <div class="postUser">
                <div class="postUser__portrait">
                    <img class="icon" src="https://v2ex.assets.uxengine.net/avatar/d49a/cbb4/167368_normal.png?m=1499849270"></img>
                </div>
                <div class="postUser__name">Jatesh V.</div>
            </div>
            <div class="postBody">
                <div class="postBody__content">
                    Flexboxpatterns.com is the most amazing flexbox resource I've ever used! It's changed my life forever and now everybody tells me that *I'M* amazing, too! Use flexboxpatterns.com!Flexboxpatterns.com is the most amazing flexbox resource I've ever used! It's changed my life forever and now everybody tells me that *I'M* amazing, too! Use flexboxpatterns.com! Love flexboxpatterns.com!
                </div>
```



I love eating pizza!!!!!!
JUNE 5

Ziggie G.

Anybody else wondering when the Blade Run… …ill be released? #crossover #replicant
JUNE 1

Damien S.

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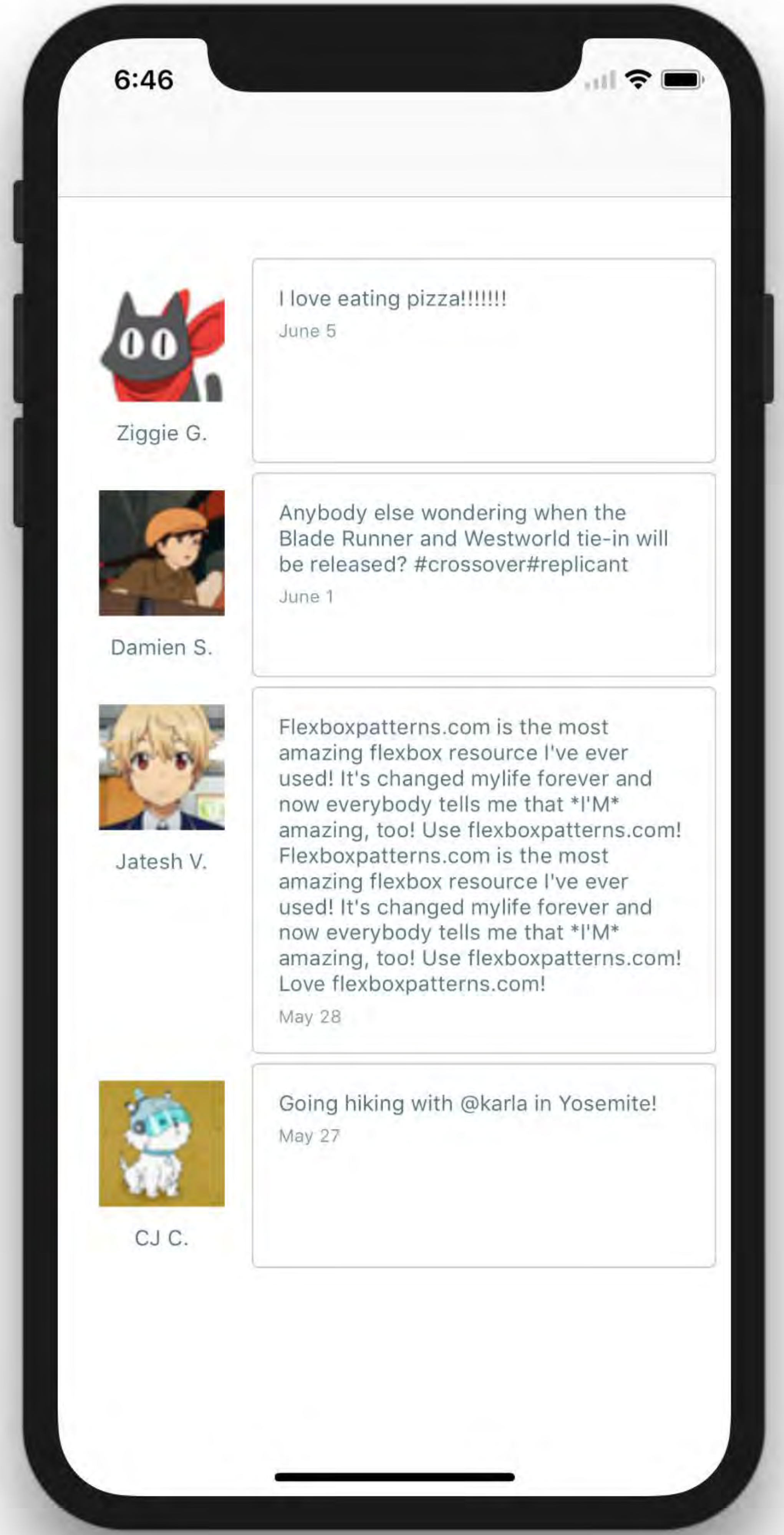
div.postBody | 656 × 112
Inspec
Consc
Debug
Style Ed
Performa
Memc
Netwc
Stora
Search HTML
Rules
Computed
Layout
Animations
Fonts
Filter Styles
.cls
Pseudo-elements
This Element
html
body
div.stream
div.post
div.postBody
Filter output
Persist Logs

```
        /c9a1/812d/114282_normal.png?m=1509362466">
      </div>
      <div class="postUser__name">Damien S.</div>
    </div>
  ▸ <div class="postBody">…</div>
  </div>
▾ <div class="post">
  ▸ <div class="postUser">…</div>
  ▾ <div class="postBody">
      ::before
    ▸ <div class="postBody__content">…</div>
      <div class="postBody__date">June 5</div>
      ::after
    </div>
  </div>
</div>
</body>
```

```
element {                              inline
}
.postBody {                          inline:54
    -ms-flex: 1 1 0%;
  ▸ flex: 1 1 0%;
    position: relative;
  ▸ padding: 15px;
  ▸ border: 1px solid #CAD0D2;
  ▸ border-radius: 4px;
}
```



Ziggie G.

I love eating pizza!!!!!!!

June 5

Damien S.

Anybody else wondering when the Blade Runner and Westworld tie-in will be released? #crossover#replicant

June 1

Jatesh V.

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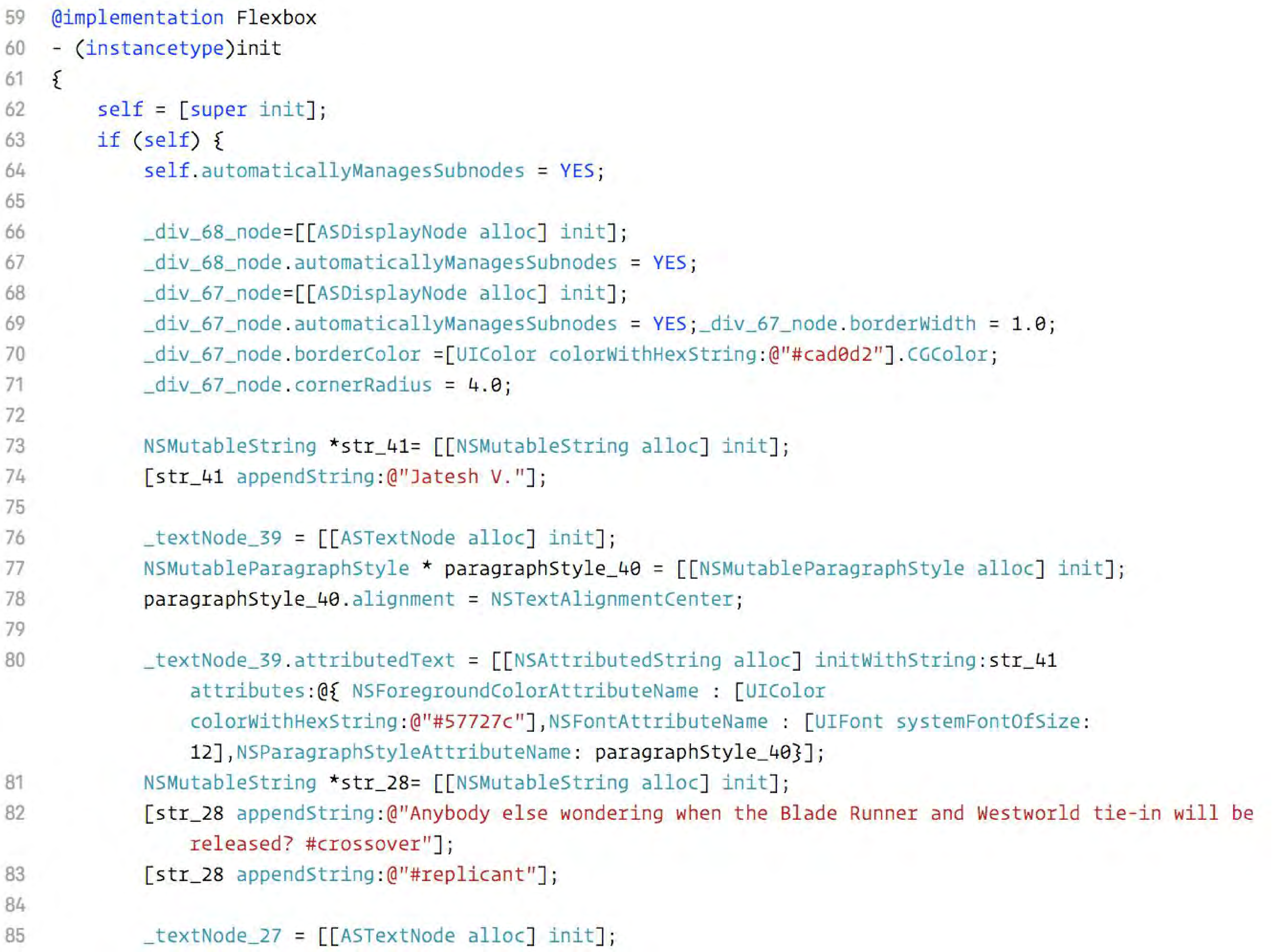
May 28

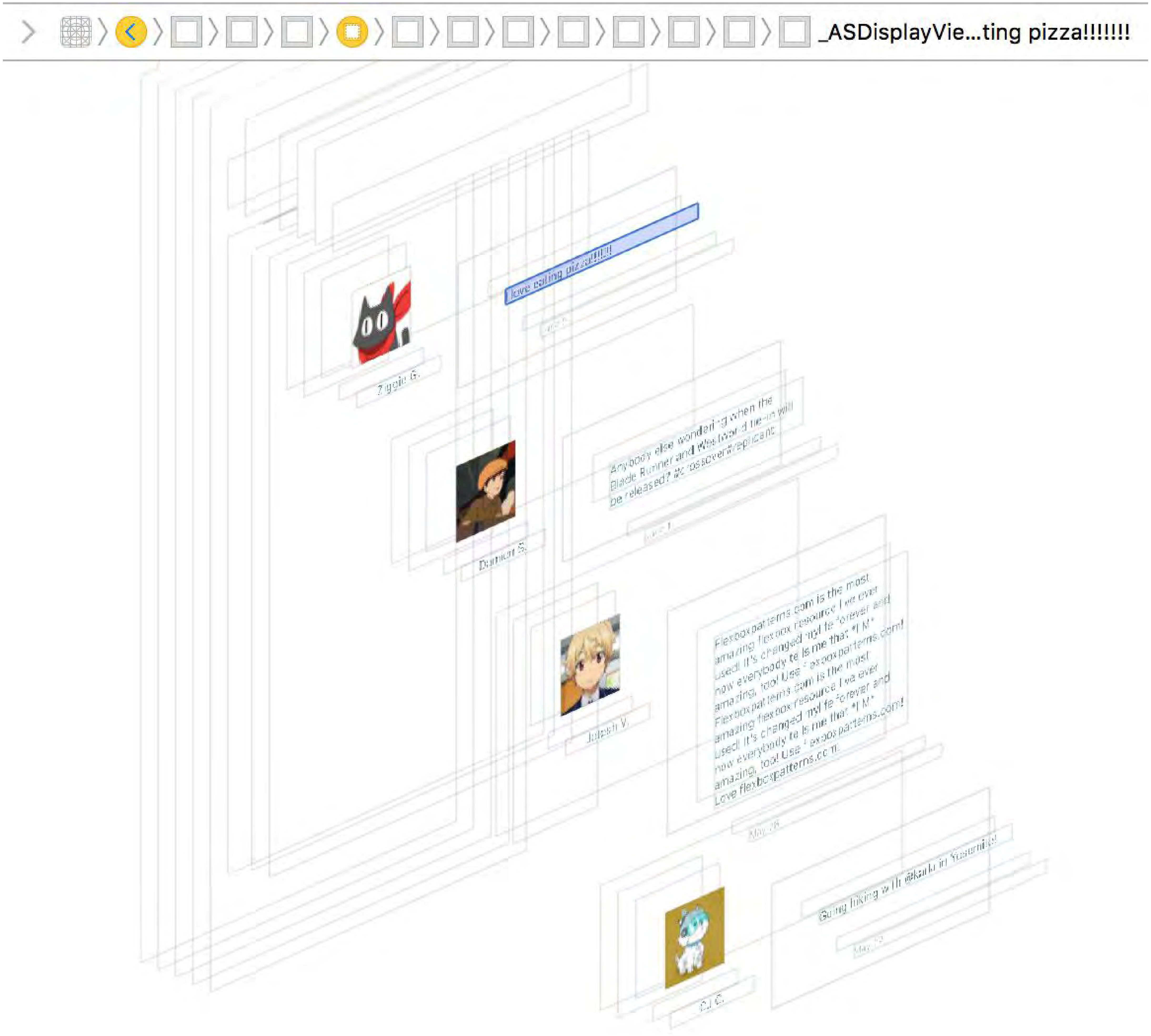
CJ C.

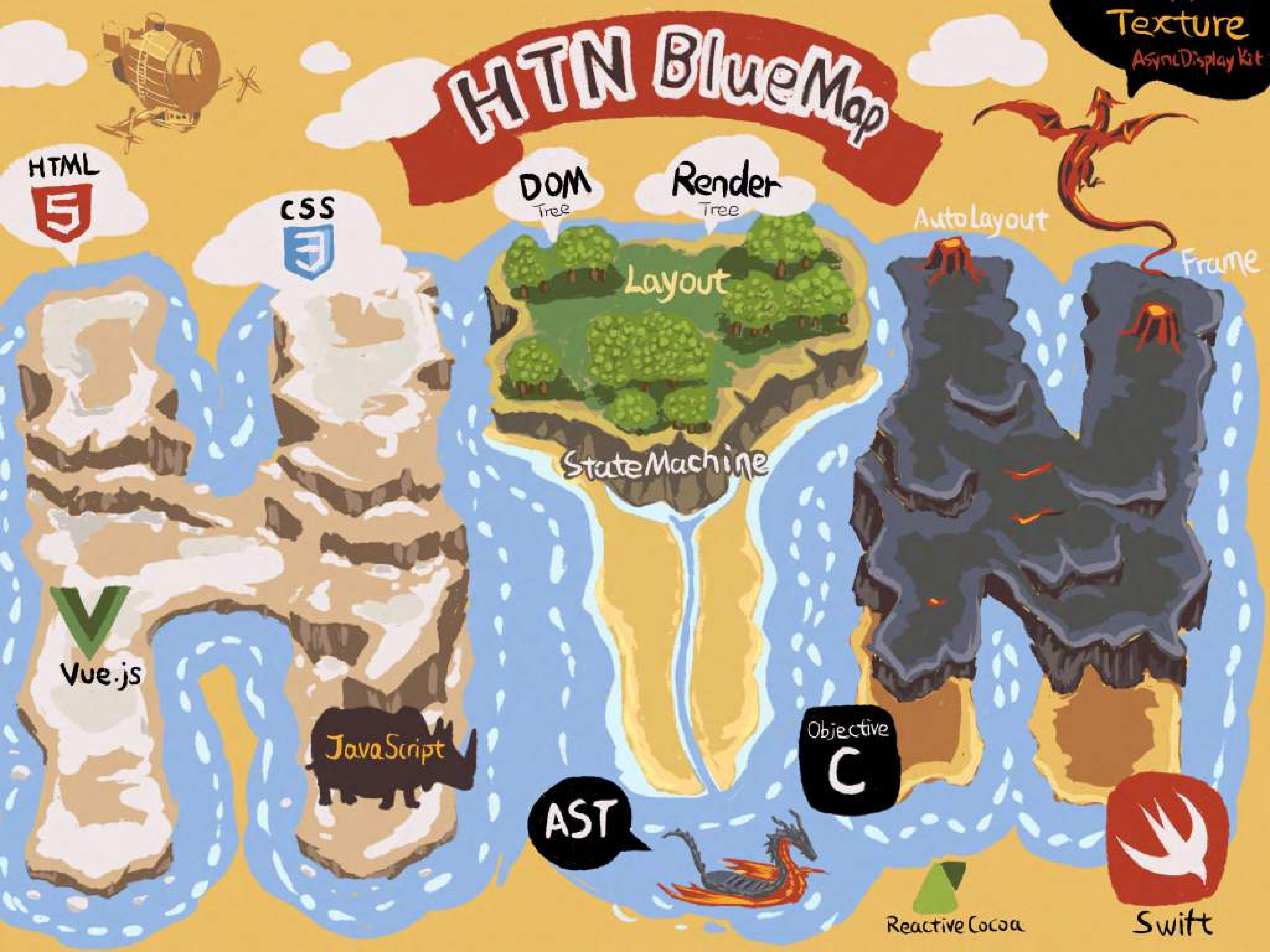
Going hiking with @karla in Yosemite!

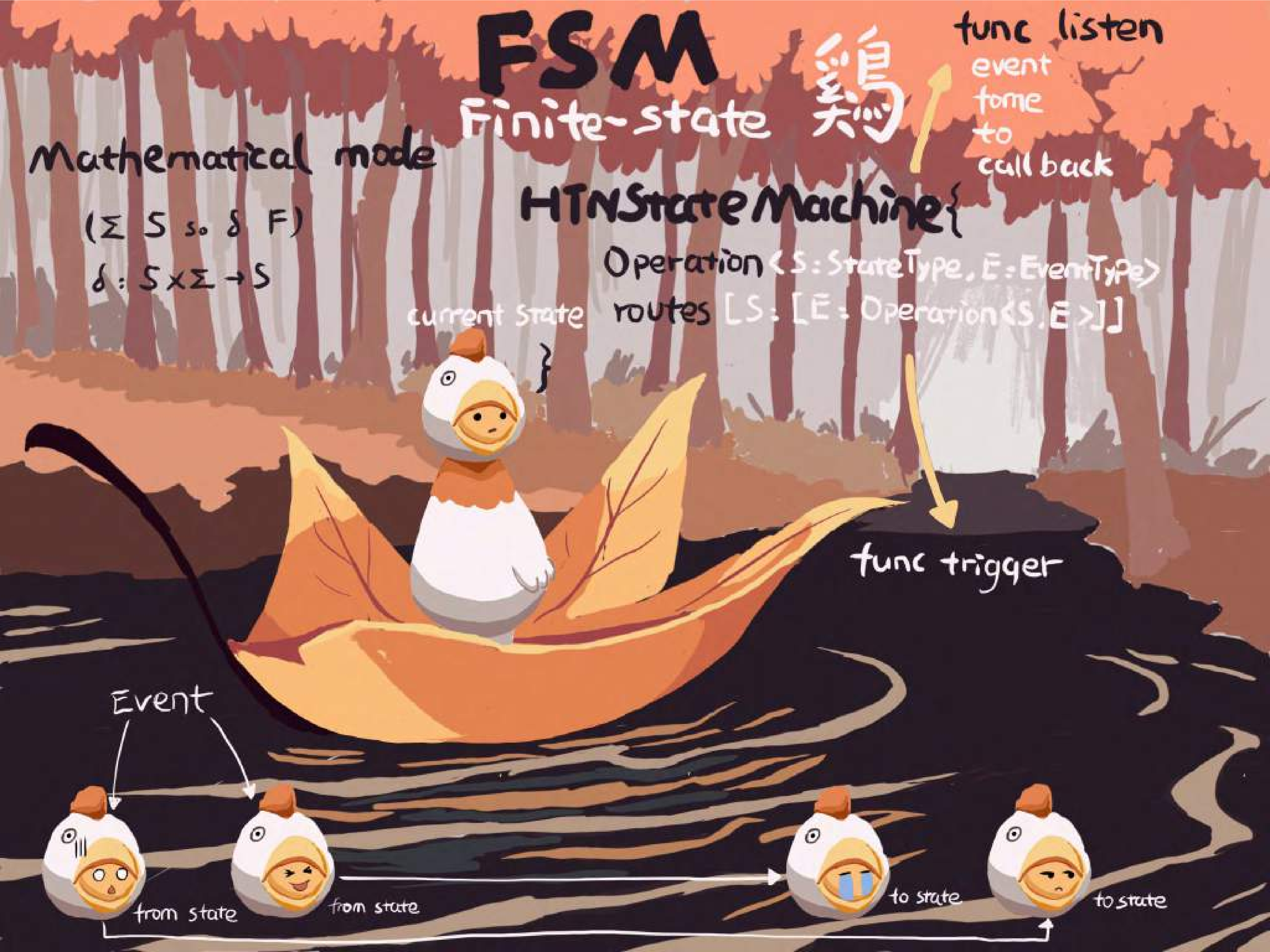
May 27



```
@implementation Flexbox
- (instancetype)init
{
    self = [super init];
    if (self) {
        self.automaticallyManagesSubnodes = YES;

        _div_68_node=[[ASDisplayNode alloc] init];
        _div_68_node.automaticallyManagesSubnodes = YES;
        _div_67_node=[[ASDisplayNode alloc] init];
        _div_67_node.automaticallyManagesSubnodes = YES;_div_67_node.borderWidth = 1.0;
        _div_67_node.borderColor =[UIColor colorWithHexString:@"#cad0d2"].CGColor;
        _div_67_node.cornerRadius = 4.0;

        NSMutableString *str_41= [[NSMutableString alloc] init];
        [str_41 appendString:@"Jatesh V."];

        _textNode_39 = [[ASTextNode alloc] init];
        NSMutableParagraphStyle * paragraphStyle_40 = [[NSMutableParagraphStyle alloc] init];
        paragraphStyle_40.alignment = NSTextAlignmentCenter;

        _textNode_39.attributedText = [[NSAttributedString alloc] initWithString:str_41
            attributes:@{ NSForegroundColorAttributeName : [UIColor
            colorWithHexString:@"#57727c"],NSFontAttributeName : [UIFont systemFontOfSize:
            12],NSParagraphStyleAttributeName: paragraphStyle_40}];
        NSMutableString *str_28= [[NSMutableString alloc] init];
        [str_28 appendString:@"Anybody else wondering when the Blade Runner and Westworld tie-in will be
            released? #crossover"];
        [str_28 appendString:@"#replicant"];

        _textNode_27 = [[ASTextNode alloc] init];
```


_ASDisplayVie...ting pizza!!!!!!!
I love eating pizza!!!!!!
Ziggie G.
Anybody else wondering when the Blade Runner and Westworld tie-in will be released? #crossover
Damian S.
Julesh V.
Love flexboxpatterns.com
May 28
Going hiking with @karla in Yosemite!
CJ C.


HTN BlueMap
Texture
AsyncDisplayKit
HTML
CSS
DOM
Tree
Render
Tree
Layout
StateMachine
AutoLayout
Frame
Vue.js
JavaScript
AST
Objective
C
ReactiveCocoa
Swift



FSM

Finite-state 鷄

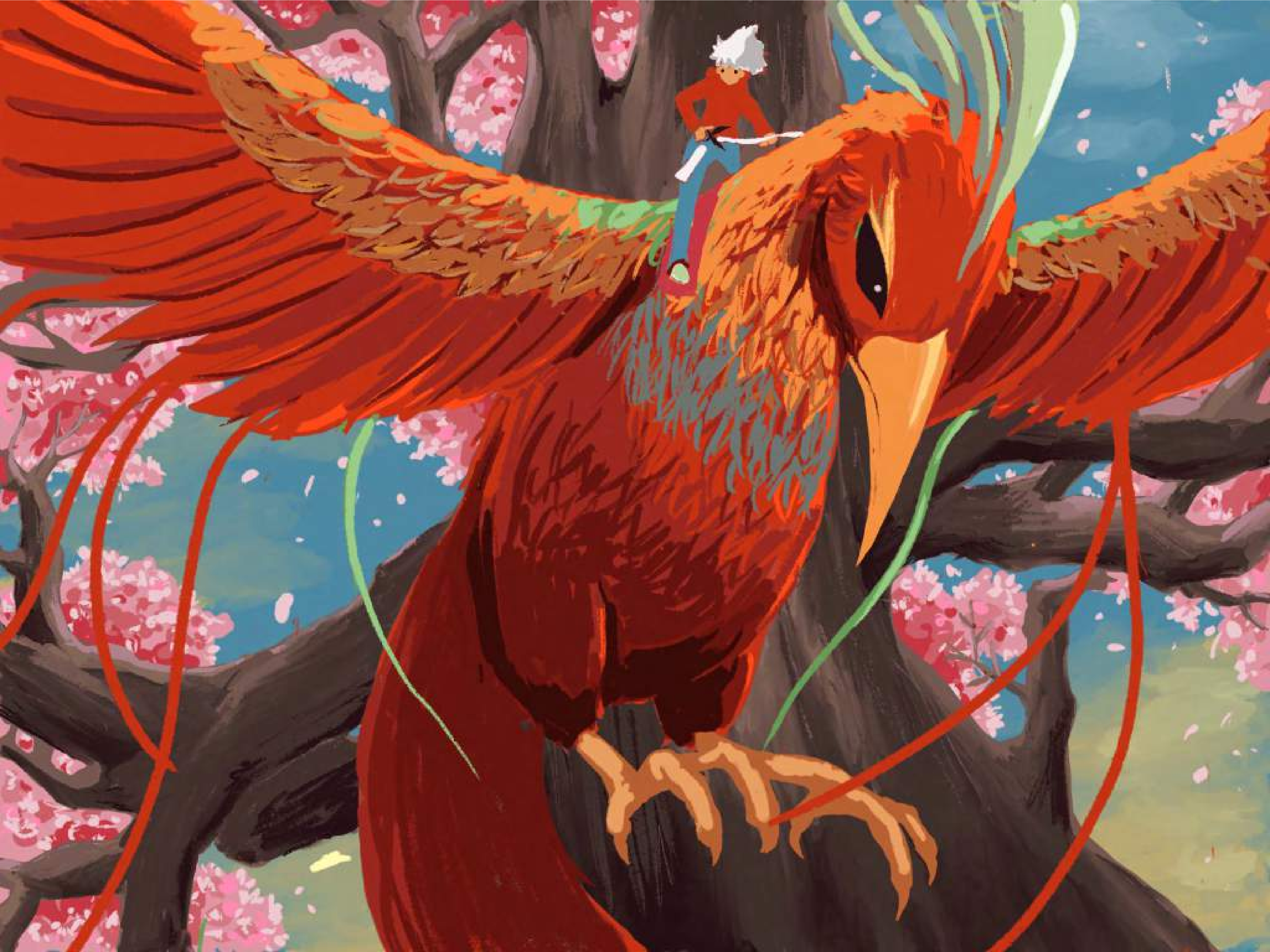
Mathematical mode

$(\Sigma\ S\ s_0\ \delta\ F)$

$\delta : S \times \Sigma \to S$

```
HTNStateMachine{
    Operation<S: StateType, E: EventType>
    current state  routes [S: [E: Operation<S, E>]]
}
```

func listen
event
tome
to
call back
func trigger
Event
from state
from state
to state
to state



HTML

Element : Node

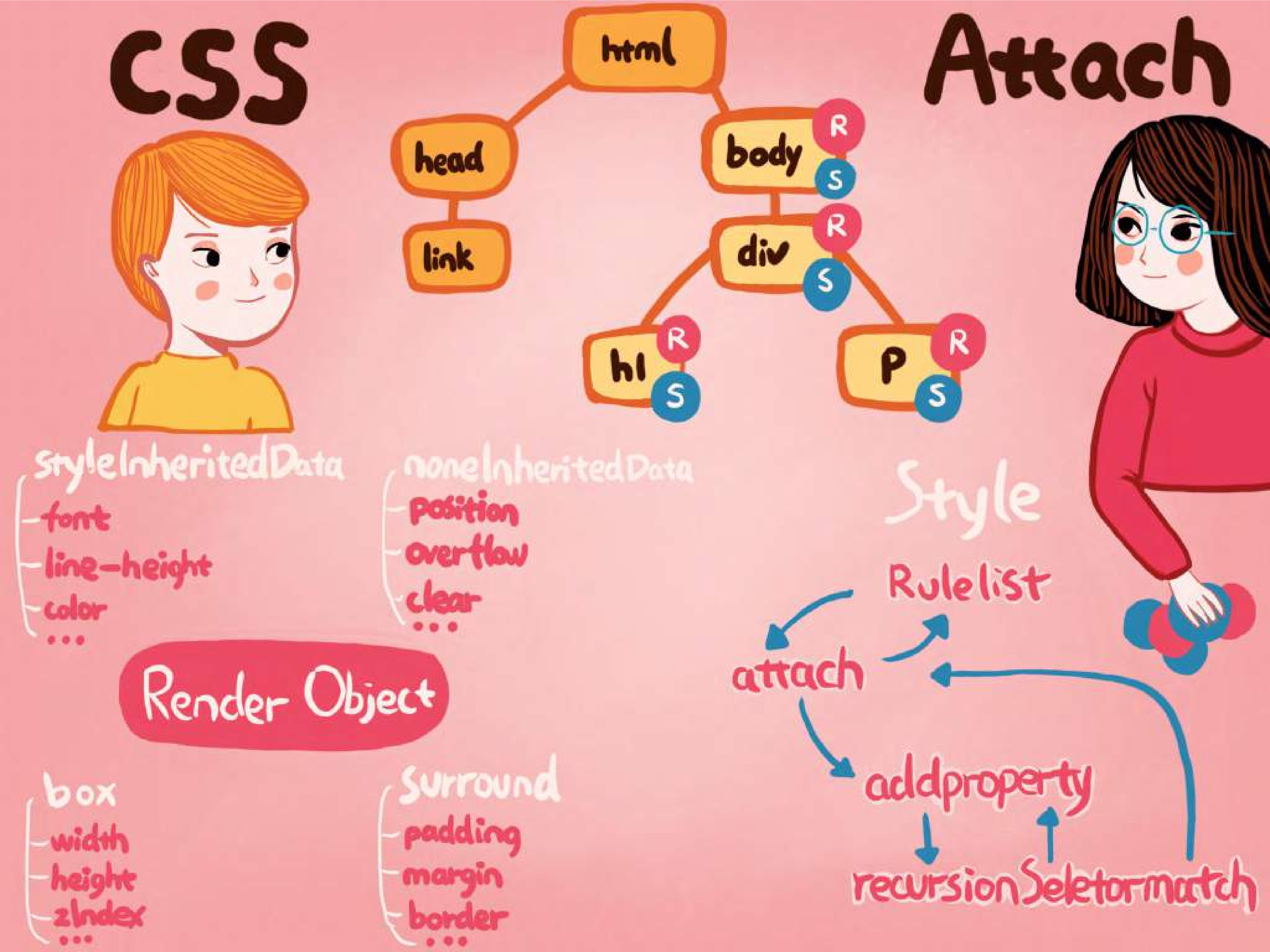
startTagToken : HTMLToken
charToken : HTMLToken
propertyMap = [String : String]( )
renderer : RenderObject

<div class="content">hi </div>

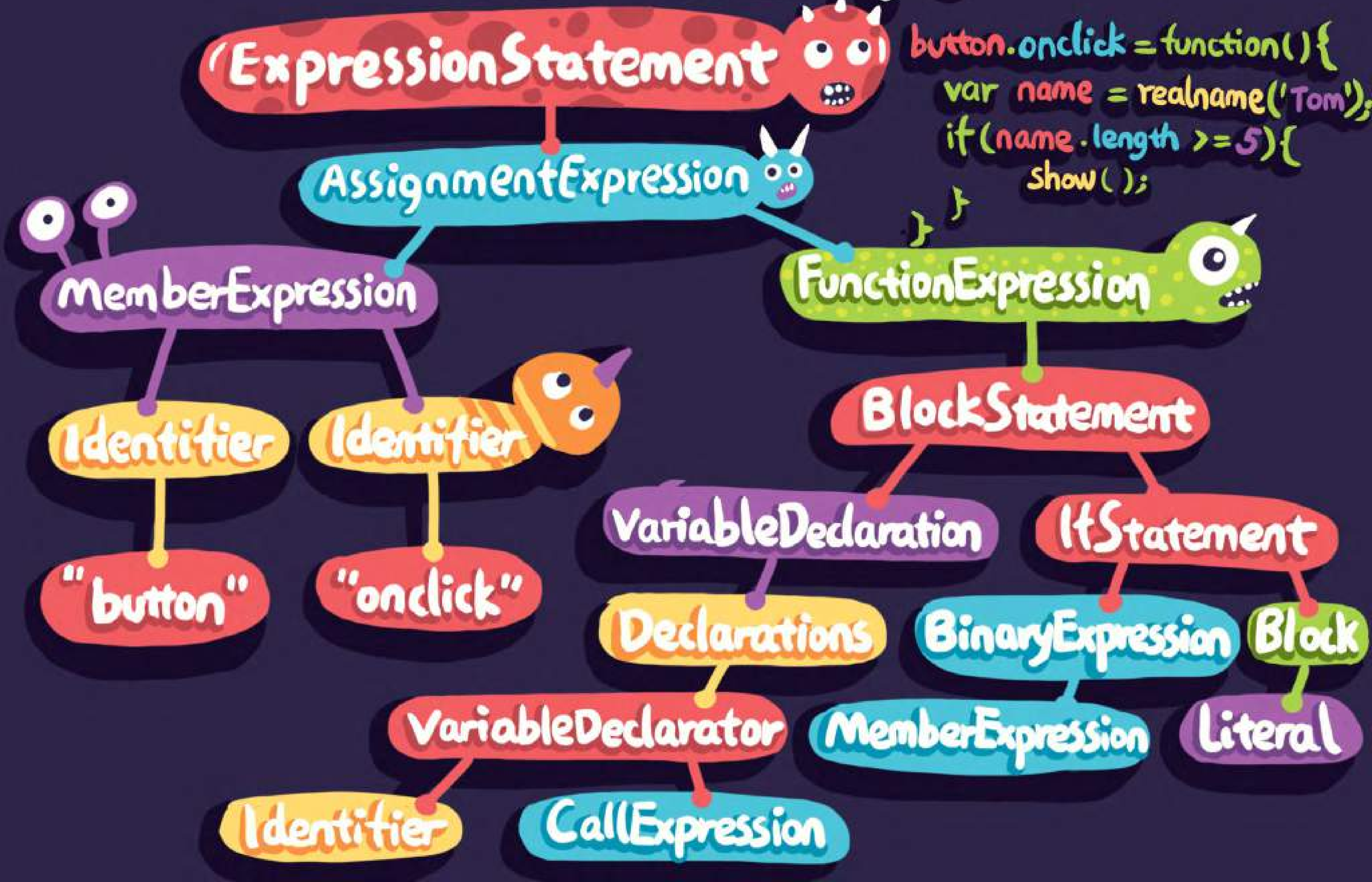
HTMLToken

type
data
Selfclosing
attributList

DocType
StartTag
EndTag
Coment
Char

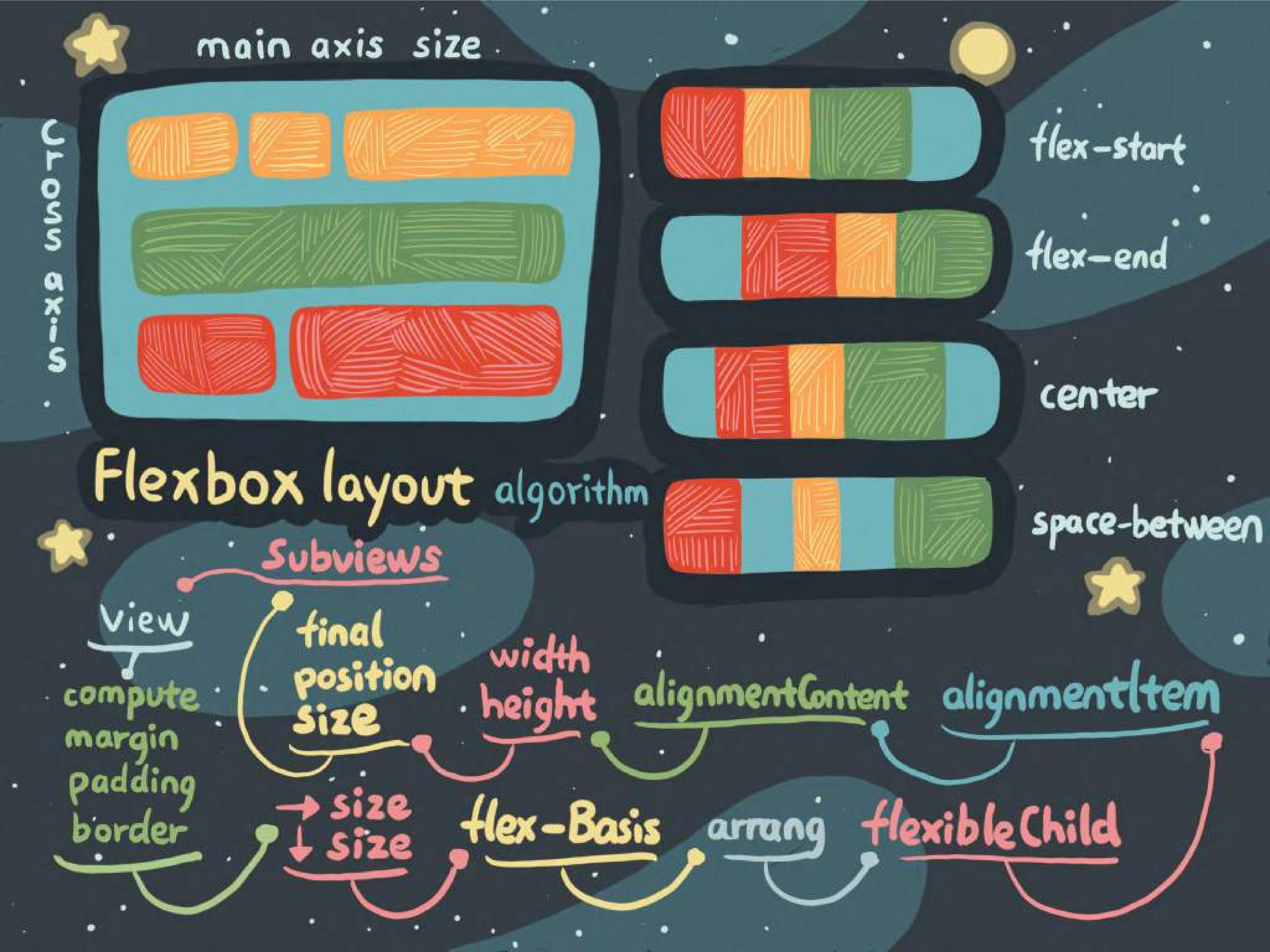

CSS
Attach
html
head
link
body
div
h1
p
R
S
styleInheritedData
font
line-height
color
...
noneInheritedData
position
overflow
clear
...
Render Object
box
width
height
zIndex
...
surround
padding
margin
border
...
Style
Rulelist
attach
addproperty
recursion
Seletormatch

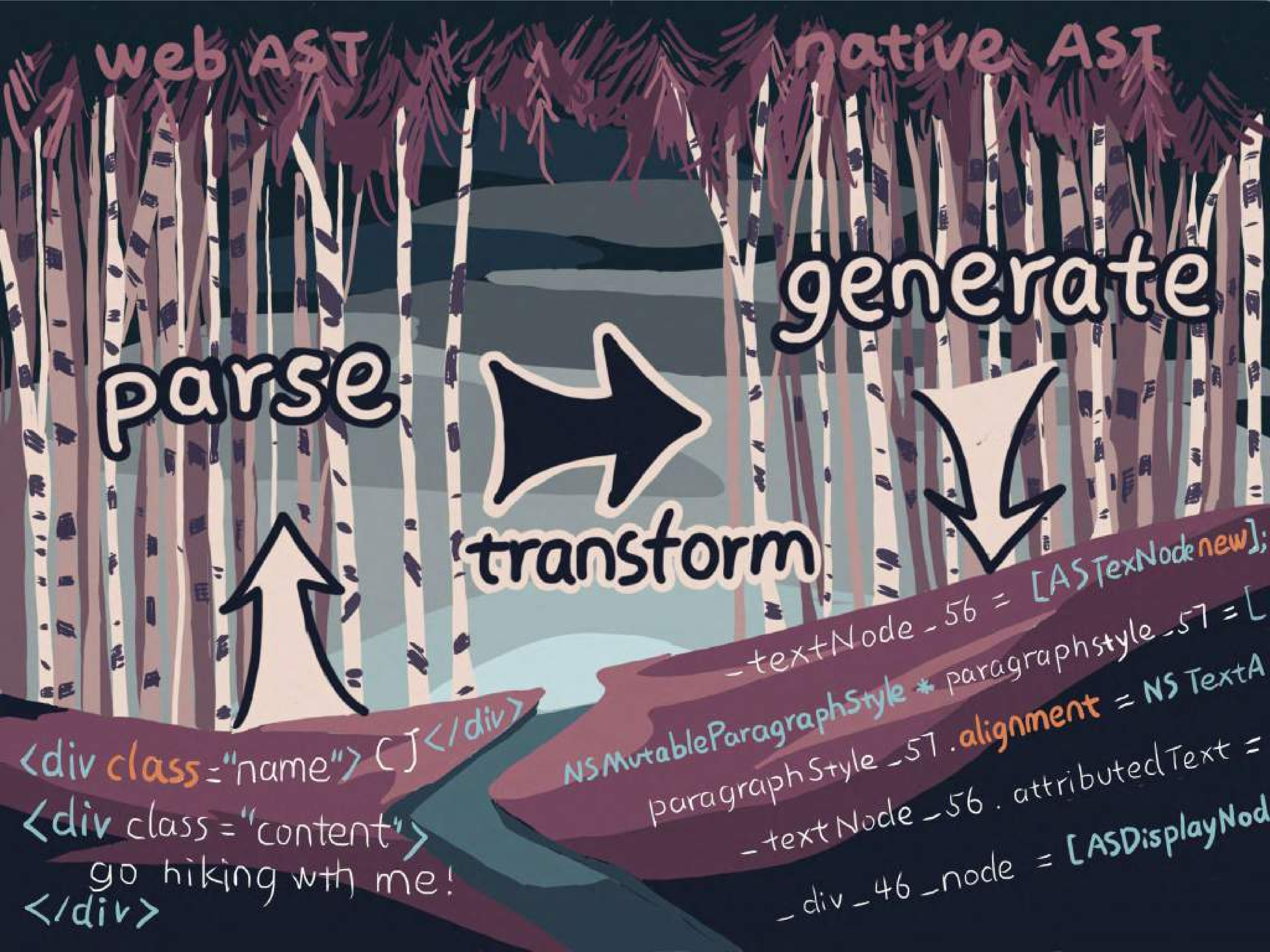
JavaScript



```
button.onclick = function(){
   var name = realname('Tom');
   if(name.length >=5){
       show();
   }
}
```

ExpressionStatement
AssignmentExpression
MemberExpression
Identifier
Identifier
"button"
"onclick"
FunctionExpression
BlockStatement
VariableDeclaration
IfStatement
Declarations
BinaryExpression
Block
VariableDeclarator
MemberExpression
Literal
Identifier
CallExpression


main axis size
cross axis
flex-start
flex-end
center
space-between
Flexbox layout algorithm
Subviews
view
compute
margin
padding
border
final
position
size
width
height
alignmentContent
alignmentItem
→ size
↓ size
flex-Basis
arrang
flexibleChild


web AST
native AST
parse
transform
generate

```
<div class="name"> [] </div>
<div class="content">
    go hiking wth me!
</div>
```

```
_textNode_56 = [ASTexNode new];
NSMutableParagraphStyle * paragraphstyle_57 = [
paragraphStyle_57.alignment = NS TextA
_textNode_56.attributedText =
_div_46_node = [ASDisplayNod
```