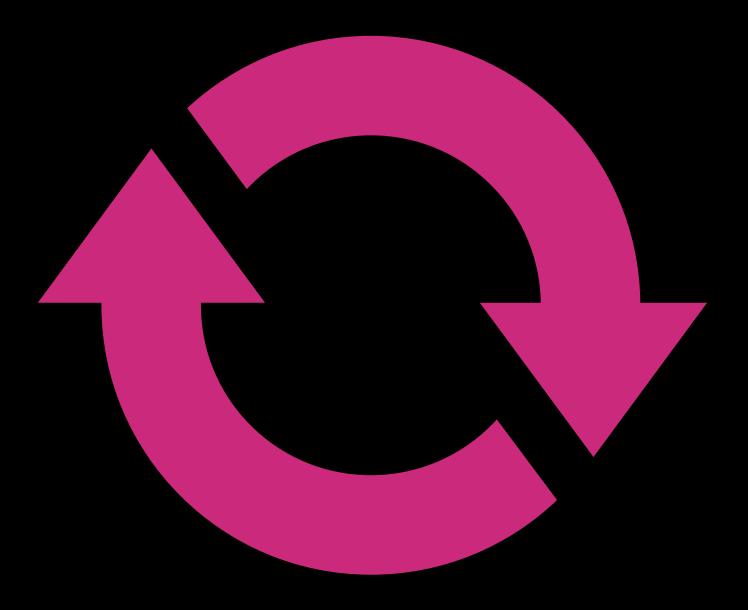


Execute a block of code multiple times

Evaluate a boolean expression to define a limit

Repeat commands and automate tasks

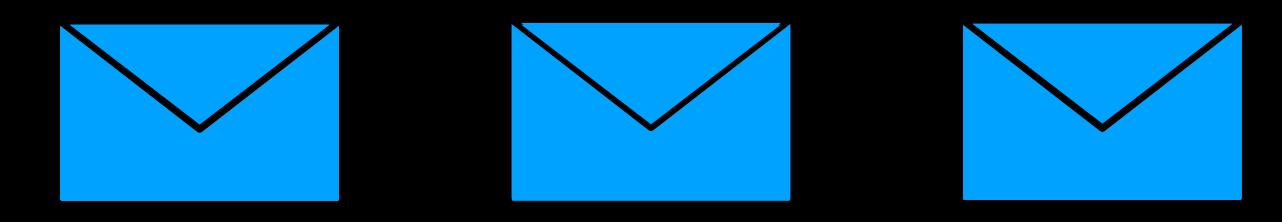


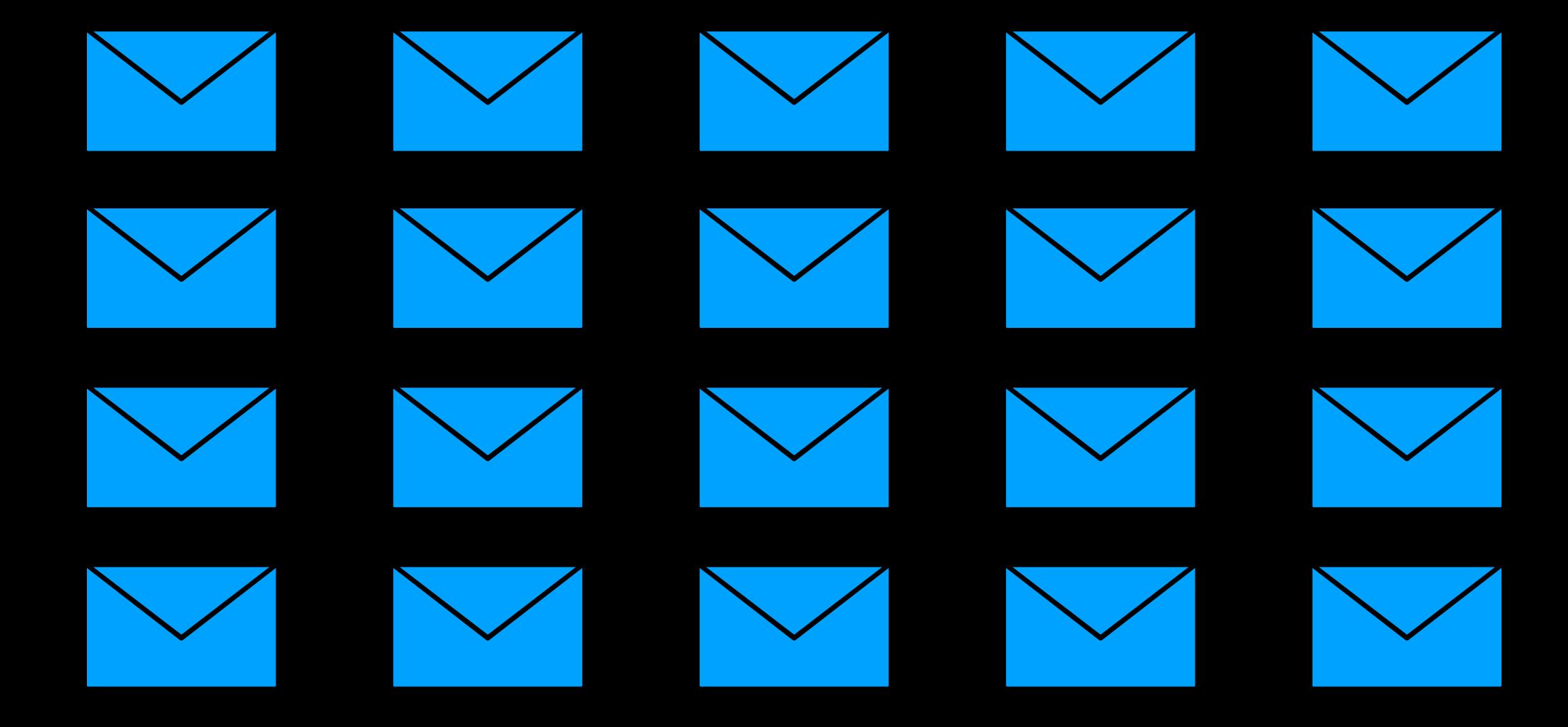
for

Exécuter un bloc de code plusieurs fois Évaluer une expression booléenne pour définir une limite Répétez les commandes et automatisez les tâches

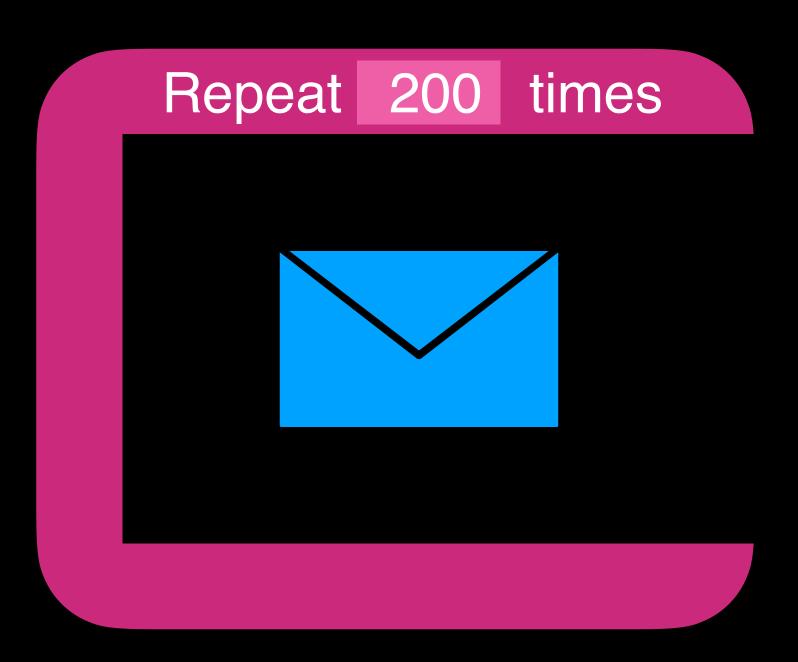


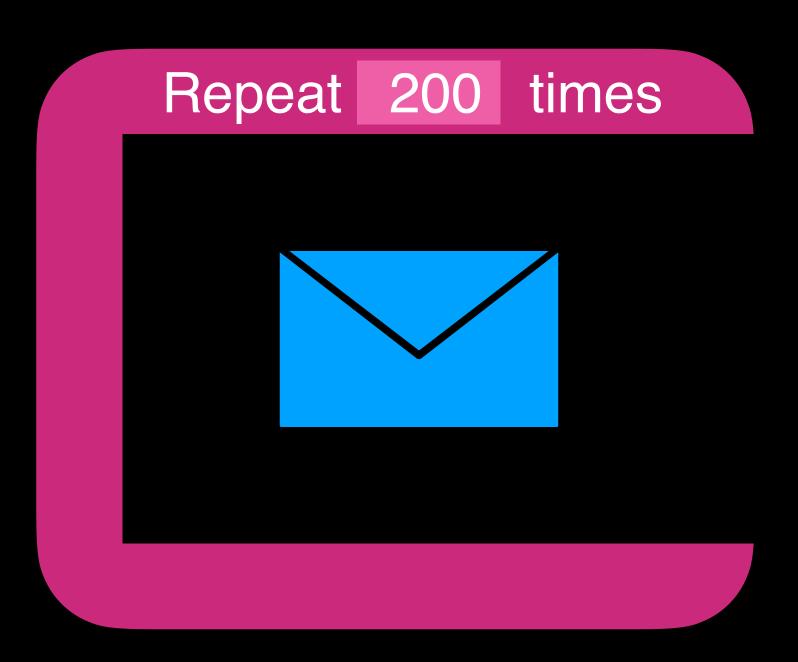
LOOPS

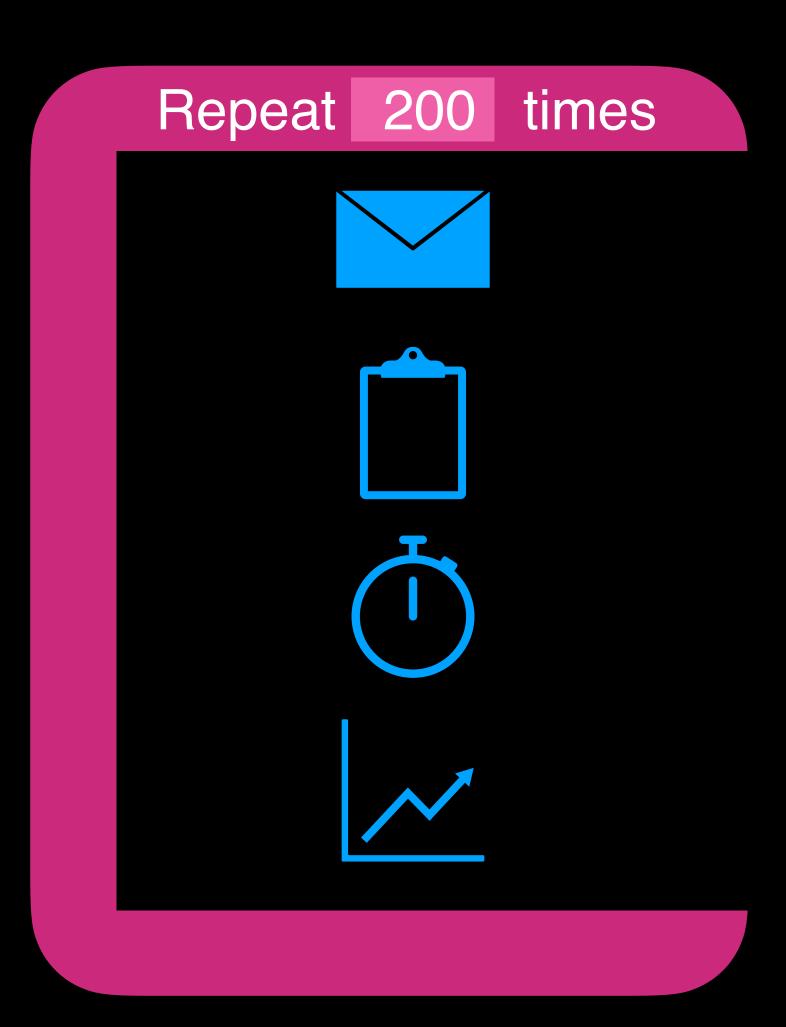












Repeat 200 times

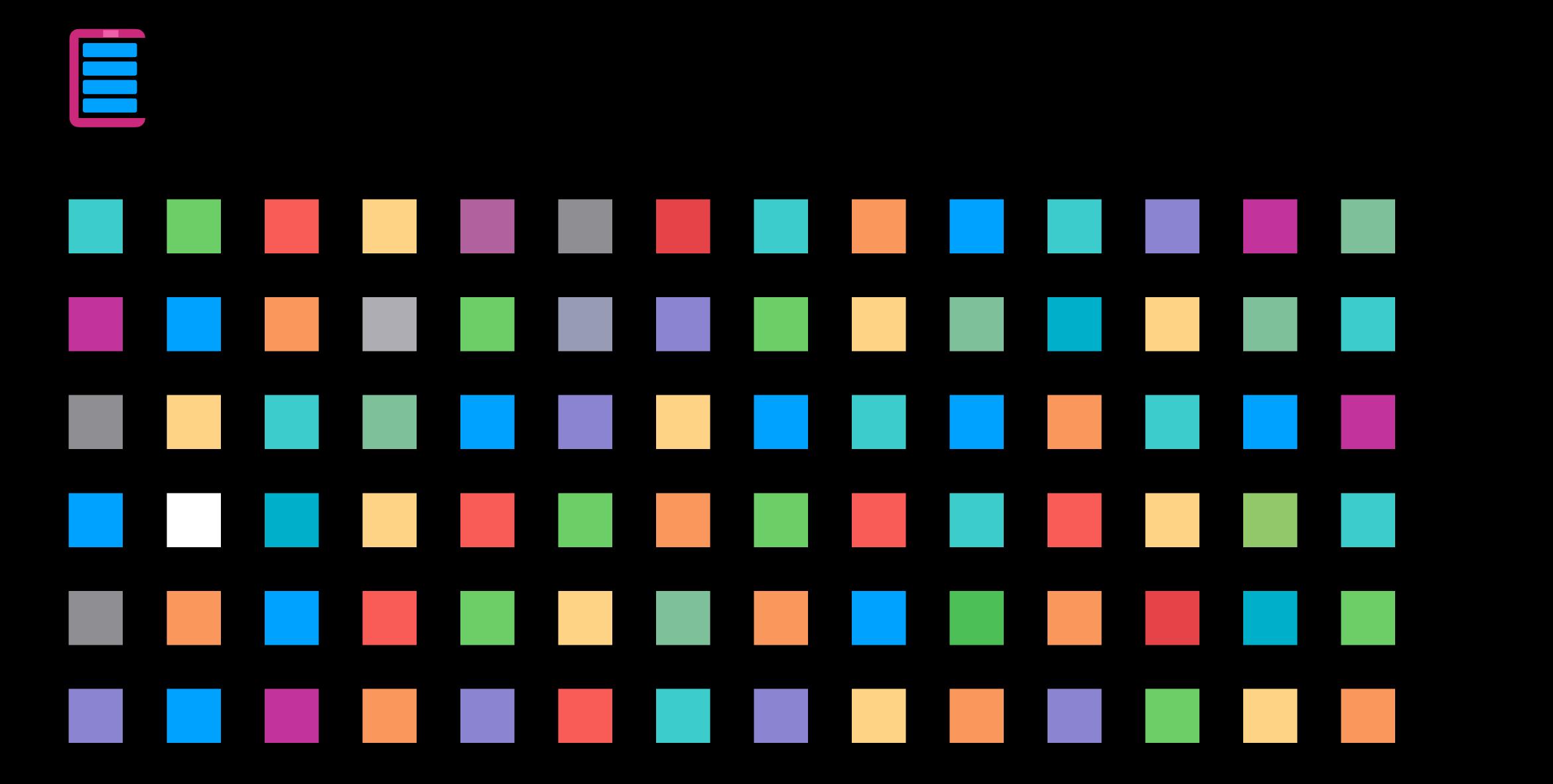
create Square

Position X

Position Y

random color





for

```
// Creating a loop based on a condition
for i in 0...2 {
    // Block of code to be repeated
    print("Bonjour tout le monde")
}
```

```
// Creating a loop based on a condition
for i in 0...2 {
    // Block of code to be repeated
    print("Bonjour tout le monde")
}
```

```
// Creating a loop based on a condition
for i in 0...2 {
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```

```
// Creating a loop based on a condition
for i in 0...2 {
    // Block of code to be repeated
    print("Bonjour tout le monde")
}
```

Bonjour tout le monde

```
// Creating a loop based on a condition
for i in 0...2 {
    // Block of code to be repeated
    print("Bonjour tout le monde")
}
```

Bonjour tout le monde Bonjour tout le monde

```
// Creating a loop based on a condition
for i in 0...2 {
    // Block of code to be repeated
    print("Bonjour tout le monde")
}
```

```
// Creating a loop based on a condition
for i in 0...2 {
    // Block of code to be repeated
    print("Bonjour tout le monde")
// Creating a loop based on a condition
for i in 0...2 {
    // Using the variable i
    print("i = \setminus (i)")
```

```
// Creating a loop based on a condition
for i in 0...2 {
    // Block of code to be repeated
    print("Bonjour tout le monde")
// Creating a loop based on a condition
for i in 0...2 {
    // Using the variable i
    print("i = \setminus (i)")
```

```
// Creating a loop based on a condition
for i in 0...2 {
    // Block of code to be repeated
    print("Bonjour tout le monde")
// Creating a loop based on a condition
for i in 0...2 {
    // Using the variable i
    print("i = \setminus (i)")
```

$$i = 0$$

```
// Creating a loop based on a condition
for i in 0...2 {
    // Block of code to be repeated
    print("Bonjour tout le monde")
// Creating a loop based on a condition
for i in 0...2 {
    // Using the variable i
    print("i = \setminus (i)")
```

```
// Creating a loop based on a condition
for i in 0...2 {
    // Block of code to be repeated
    print("Bonjour tout le monde")
// Creating a loop based on a condition
for i in 0...2 {
    // Using the variable i
    print("i = \setminus (i)")
```

```
// Creating a loop based on a condition
for i in 0...2 {
    // Block of code to be repeated
    print("Bonjour tout le monde")
let userNames = ["Danilo", "Gilles", "Mark"]
// Creating a loop based on a condition
for i in 0...2 {
    // Using the variable i
    print("Hello \(userNames[i])")
```

Hello Danilo Hello Gilles Hello Mark

```
// Creating a loop based on a condition
for i in 0...2 {
    // Block of code to be repeated
    print("Bonjour tout le monde")
let userNames = ["Danilo", "Gilles", "Mark"]
// Creating a loop based on a condition
for item in userNames {
    // Using the variable i
    print("Hello \(item)")
```

Hello Danilo Hello Gilles Hello Mark

```
// We can define an interval excluding the limit
for j in 0..<2 {
    print("j = \((j)\)")
}</pre>
```

```
// We can define an interval excluding the limit
for j in 0..<2 {
    print("j = \(j)")
}</pre>
```

```
// We can define an interval excluding the limit
for j in 0..<2 {
    print("j = \((j)\)")
}</pre>
```

```
// We can define an interval excluding the limit
for j in 0..<2 {
    print("j = \((j))")
    j = 1
}</pre>
```

```
// We can define an interval excluding the limit
for j in 0..<2 {
    print("j = \((j))")
    j = 1
}

// Iterator accessible only inside the loop
j</pre>
```

```
let vehicles = ["unicycle" : 1, "bicycle" : 2, "tricycle" : 3, "quad bike" : 4]
for (vehicleName, wheelCount) in vehicles {
   print("A \(vehicleName) has \(wheelCount) wheels")
}
```

```
let vehicles = ["unicycle" : 1, "bicycle" : 2, "tricycle" : 3, "quad bike" : 4]
for (vehicleName, wheelCount) in vehicles {
   print("A \(vehicleName) has \(wheelCount) wheels")
}
```

A unicycle has 1 wheels
A bicycle has 2 wheels
A tricycle has 3 wheels
A quad bike has 4 wheels

```
let vehicles = ["unicycle" : 1, "bicycle" : 2, "tricycle" : 3, "quad bike" : 4]
for (vehicleName, wheelCount) in vehicles {
   print("A \(vehicleName) has \(wheelCount) wheels")
}
```

```
A unicycle has 1 wheels
A bicycle has 2 wheels
A quad bike has 4 wheels
A unicycle has 1 wheels
A tricycle has 3 wheels
A tricycle has 3 wheels
A quad bike has 4 wheels
```

```
for (index, letter) in "ABCDEFG".enumerated() {
  print("\(index): \(letter)")
}
```

for loops

```
for (index, letter) in "ABCDEFG".enumerated()
  print("\(index): \(letter)")
}
```

```
0: A1: B2: C3: D4: E5: F6: G
```

Hands on

```
aaplStock = [
"code" : "AAPL",

"value" : "150,34",

"variation" : "0,45%",

"volume" : "US$ 4B"

]
```

```
→ $ 95% ___
```

```
let userStocks = [
   aaplStock,
      brlX,
   ibovespa,
      fibr3,
     hbor3,
     itsa4,
     sapr4
```

```
aaplStock = [
   "code" : "AAPL",

"value" : "150,34",

"variation" : "0,45%",

"volume" : "US$ 4B"

]
```



```
let userStocks = [
   aaplStock,
      brlX,
   ibovespa,
      fibr3,
     hbor3,
     itsa4,
     sapr4
```

```
aaplStock = [
"code" : "AAPL",

"value" : "150,34",

"variation" : "0,45%",

"volume" : "US$ 4B"

]
```



```
et userStocks = [
   aaplStock,
      brlX,
   ibovespa,
      fibr3,
     hbor3,
     itsa4,
     sapr4
```

```
aaplStock = [
"code" : "AAPL",

"value" : "150,34",

"variation" : "0,45%",

"volume" : "US$ 4B"

]
```



```
et userStocks = [
   aaplStock,
      brlX,
   ibovespa,
      fibr3,
     hbor3,
     itsa4,
     sapr4
```

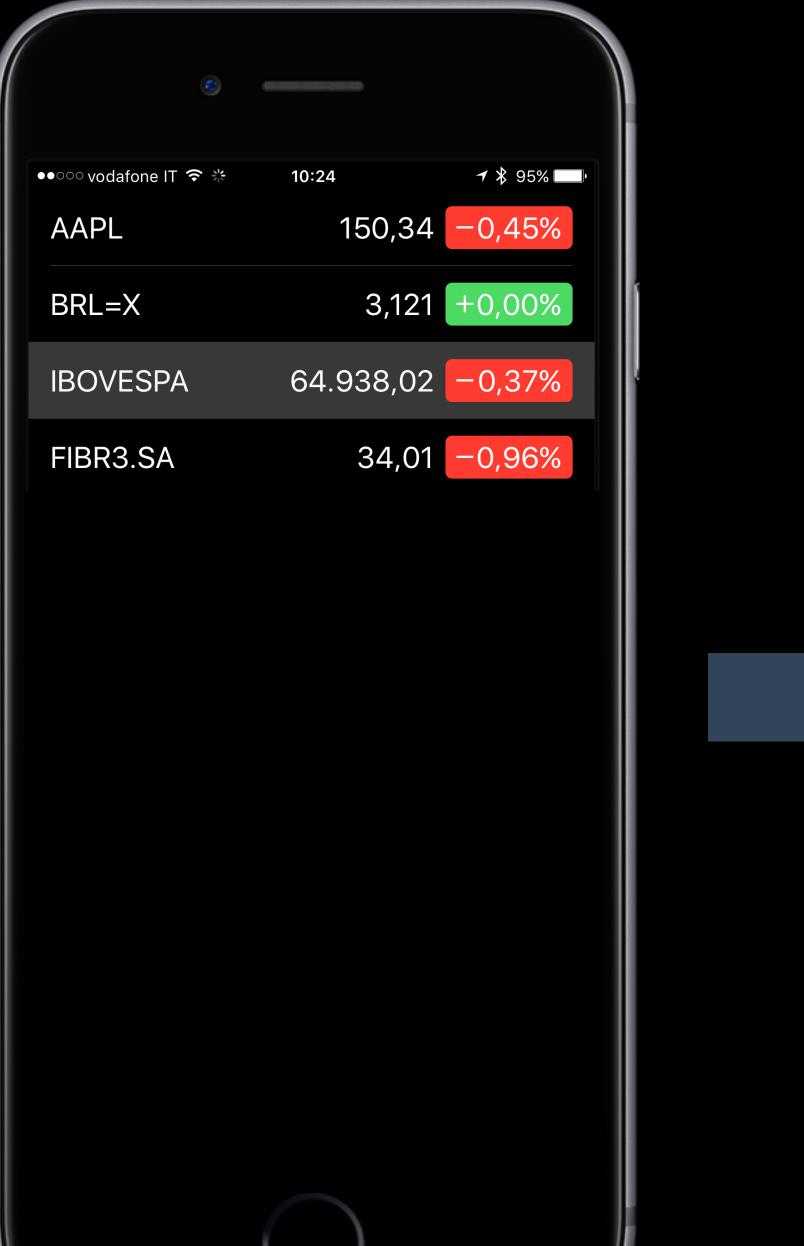
```
aaplStock = [
"code" : "AAPL",

"value" : "150,34",

"variation" : "0,45%",

"volume" : "US$ 4B"

]
```



```
let userStocks = [
   aaplStock,
      brlX,
   ibovespa,
      fibr3,
     hbor3,
     itsa4,
     sapr4
```

```
aaplStock = [
"code" : "AAPL",

"value" : "150,34",

"variation" : "0,45%",

"volume" : "US$ 4B"

]
```



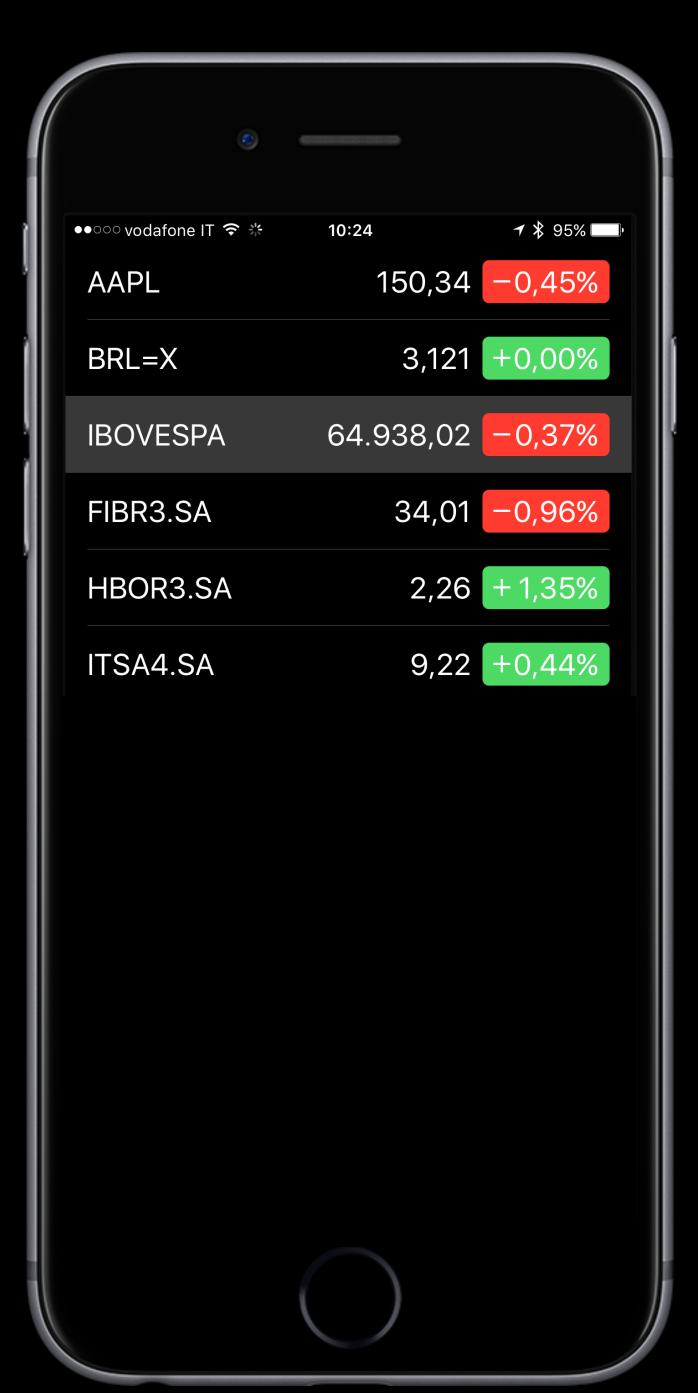
```
let userStocks = [
   aaplStock,
      brlX,
   ibovespa,
      fibr3,
     hbor3,
     itsa4,
     sapr4
```

```
aaplStock = [
"code" : "AAPL",

"value" : "150,34",

"variation" : "0,45%",

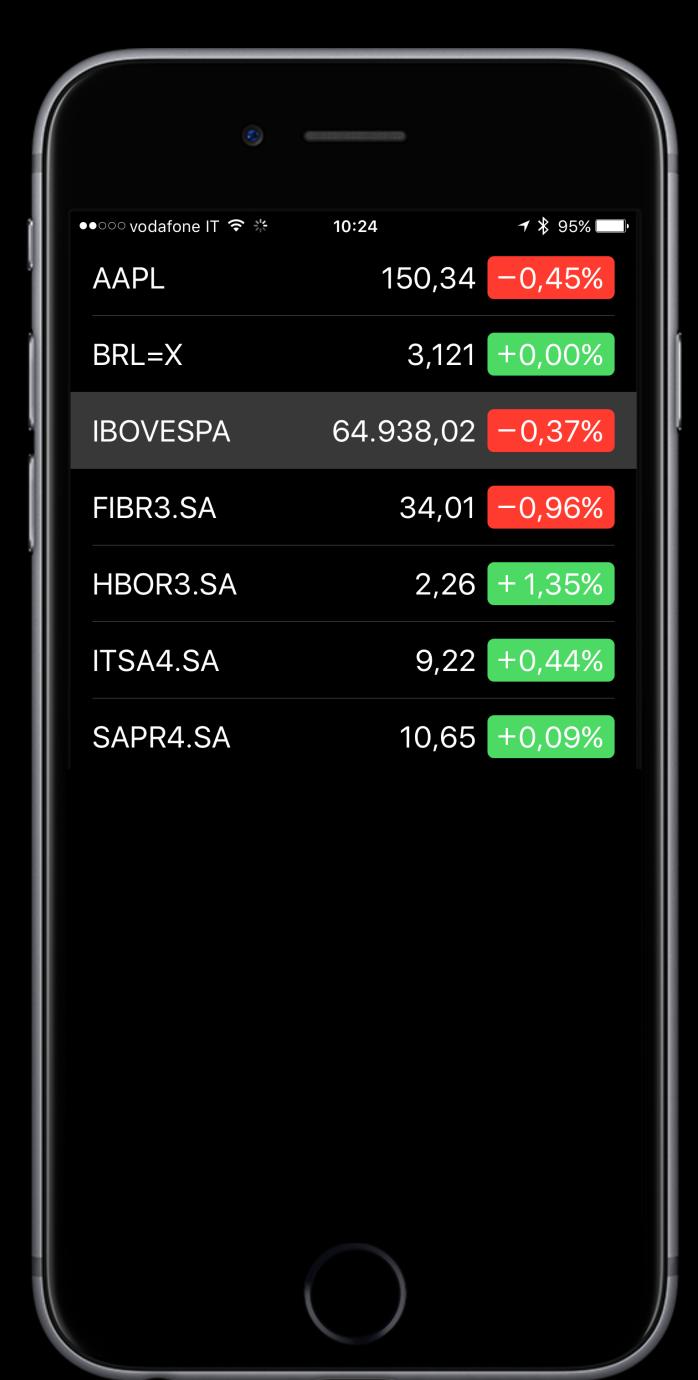
"volume" : "US$ 4B"
```



```
let userStocks = [
   aaplStock,
      brlX,
   ibovespa,
      fibr3,
     hbor3,
     itsa4,
     sapr4
```

```
aaplStock = [
  "code" : "AAPL",
  "value" : "150,34",

"variation" : "0,45%",
  "volume" : "US$ 4B"
```



```
let userStocks = [
   aaplStock,
      brlX,
   ibovespa,
      fibr3,
     hbor3,
     itsa4,
     sapr4
```

```
aaplStock = [
```

"code": "AAPL",

"value": "150,34",

"variation": "0,45%",

"volume": "US\$ 4B"



```
et userStocks = [
   aaplStock,
      brlX,
   ibovespa,
      fibr3,
     hbor3,
     itsa4,
     sapr4
```