

Loops

Loops

Execute a block of code multiple times

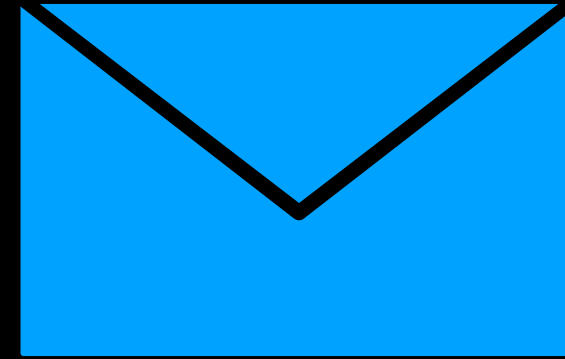
Evaluate a boolean expression to define a limit

Repeat commands and automate tasks

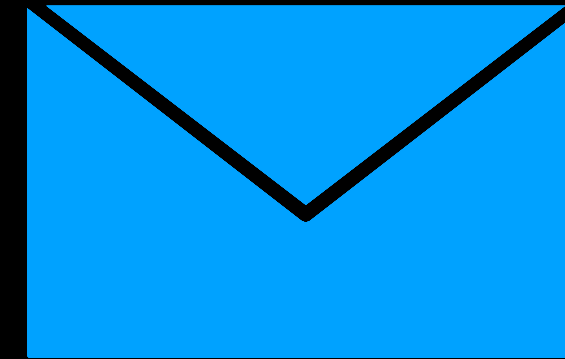
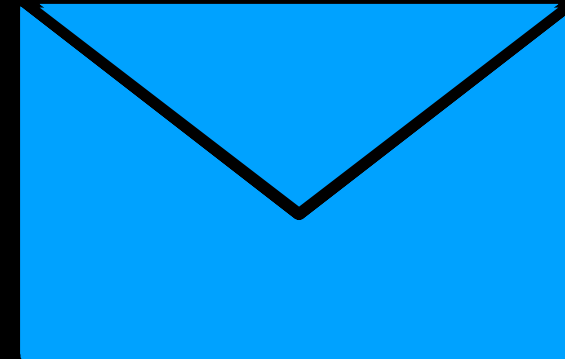
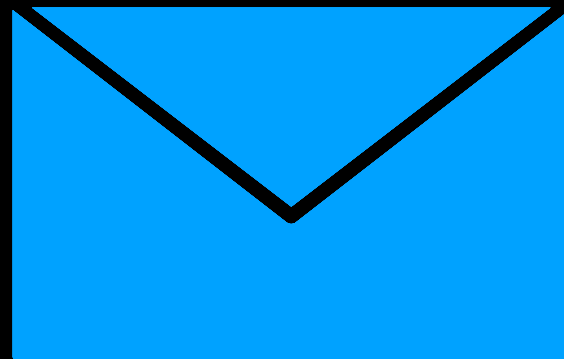
for, while and repeat while



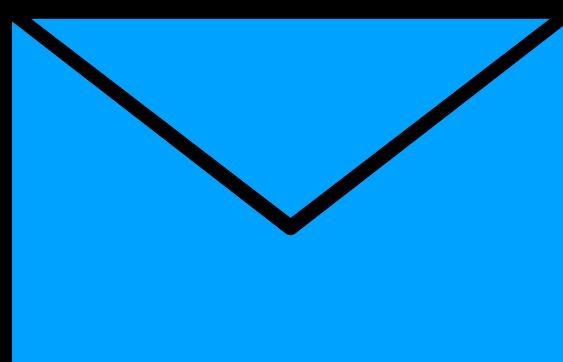
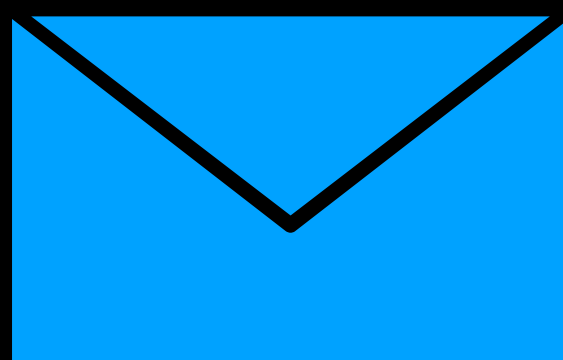
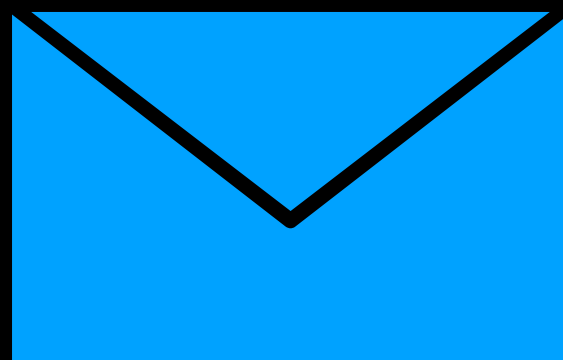
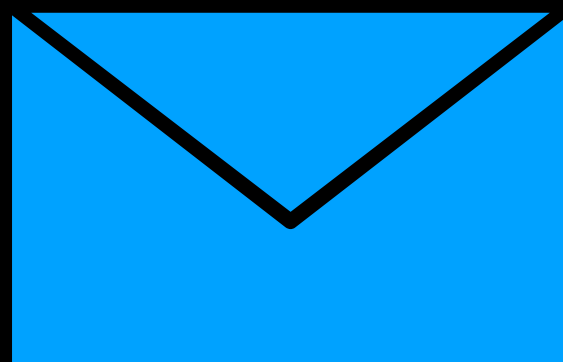
Loops



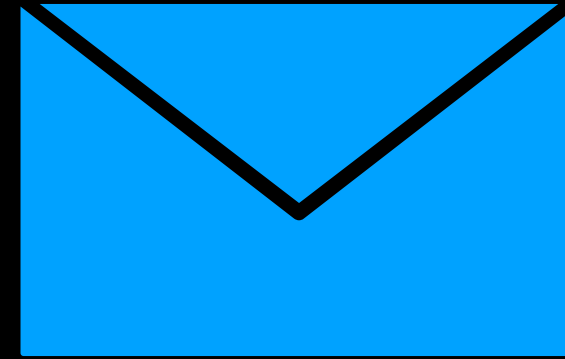
Loops



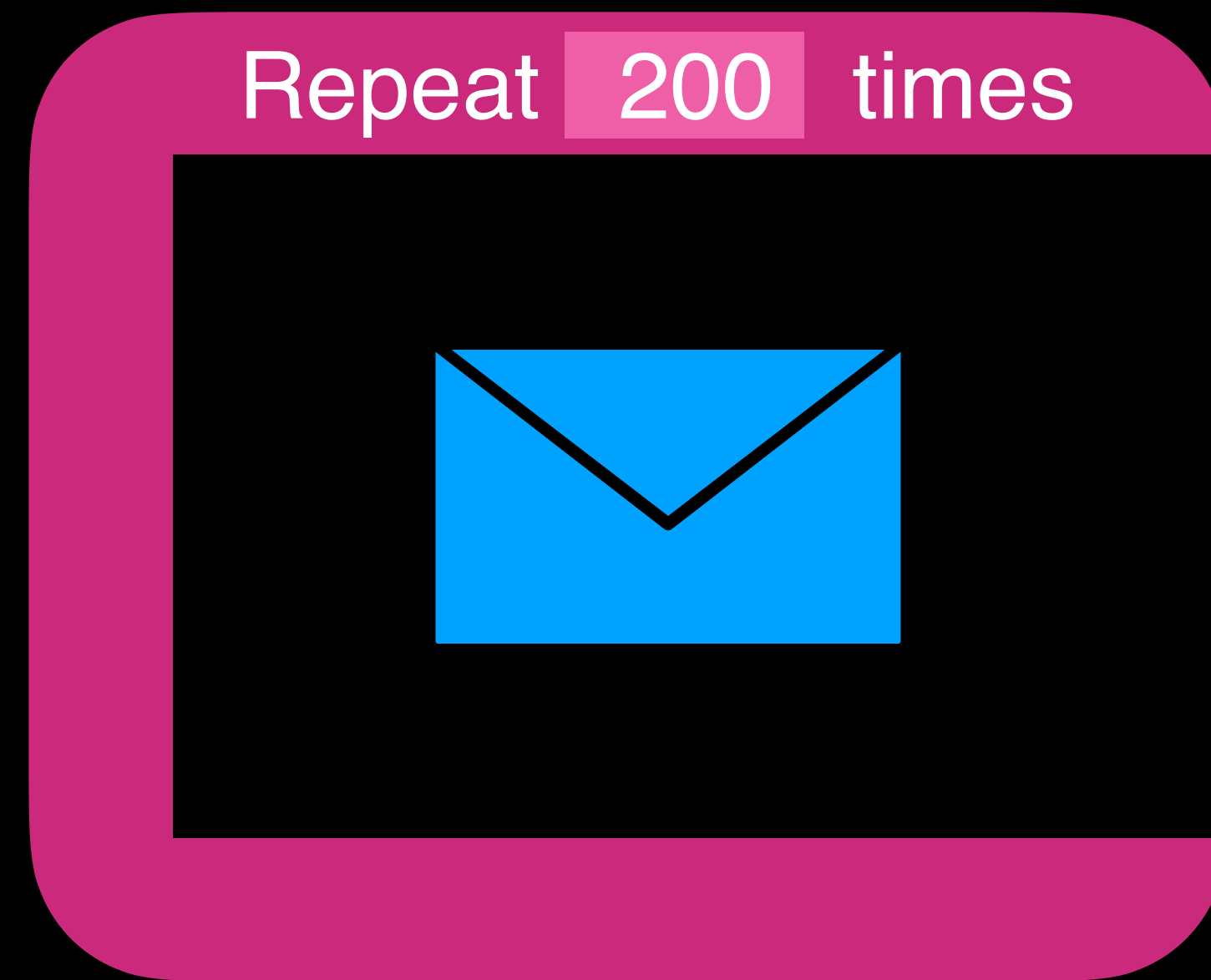
Loops



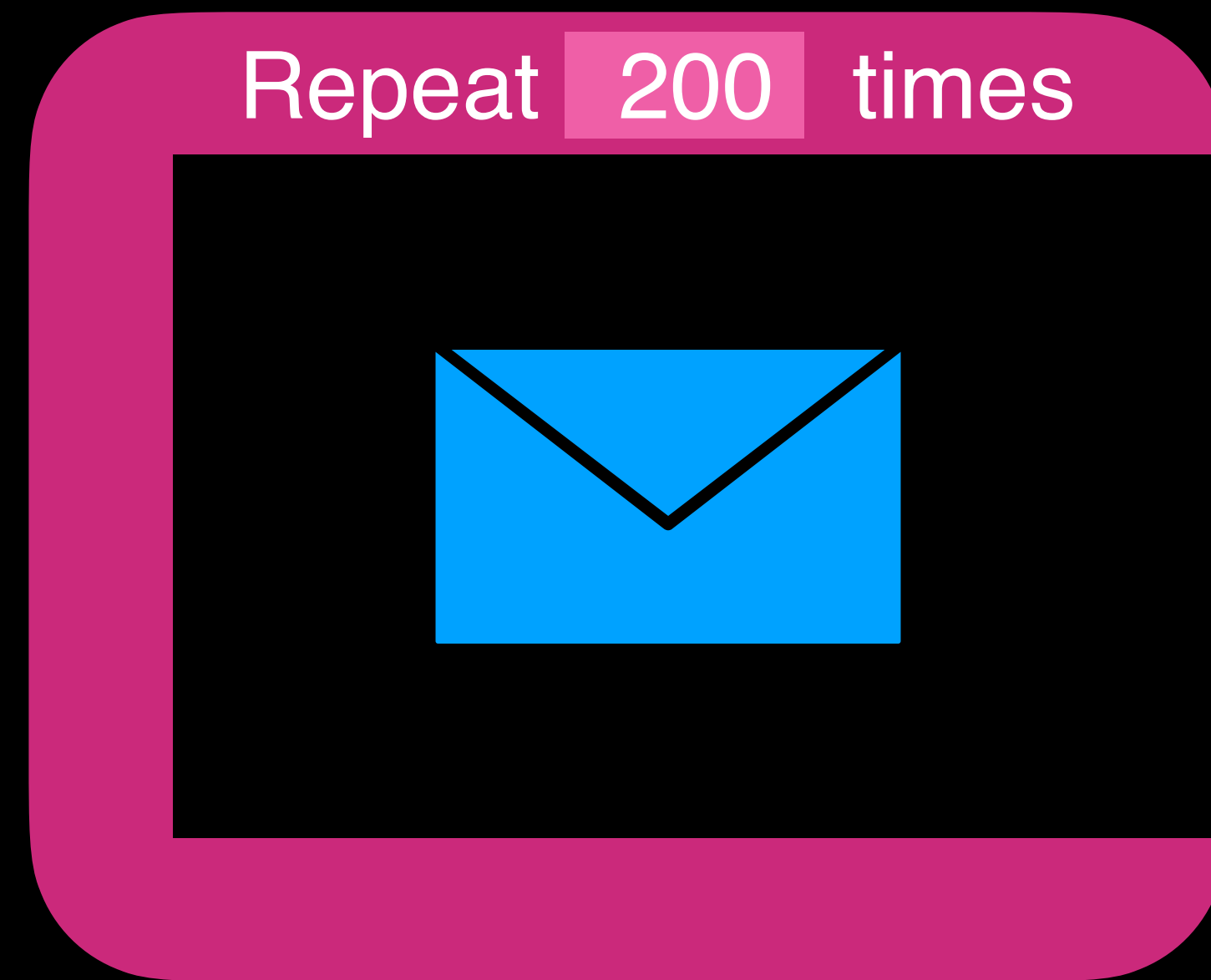
Loops



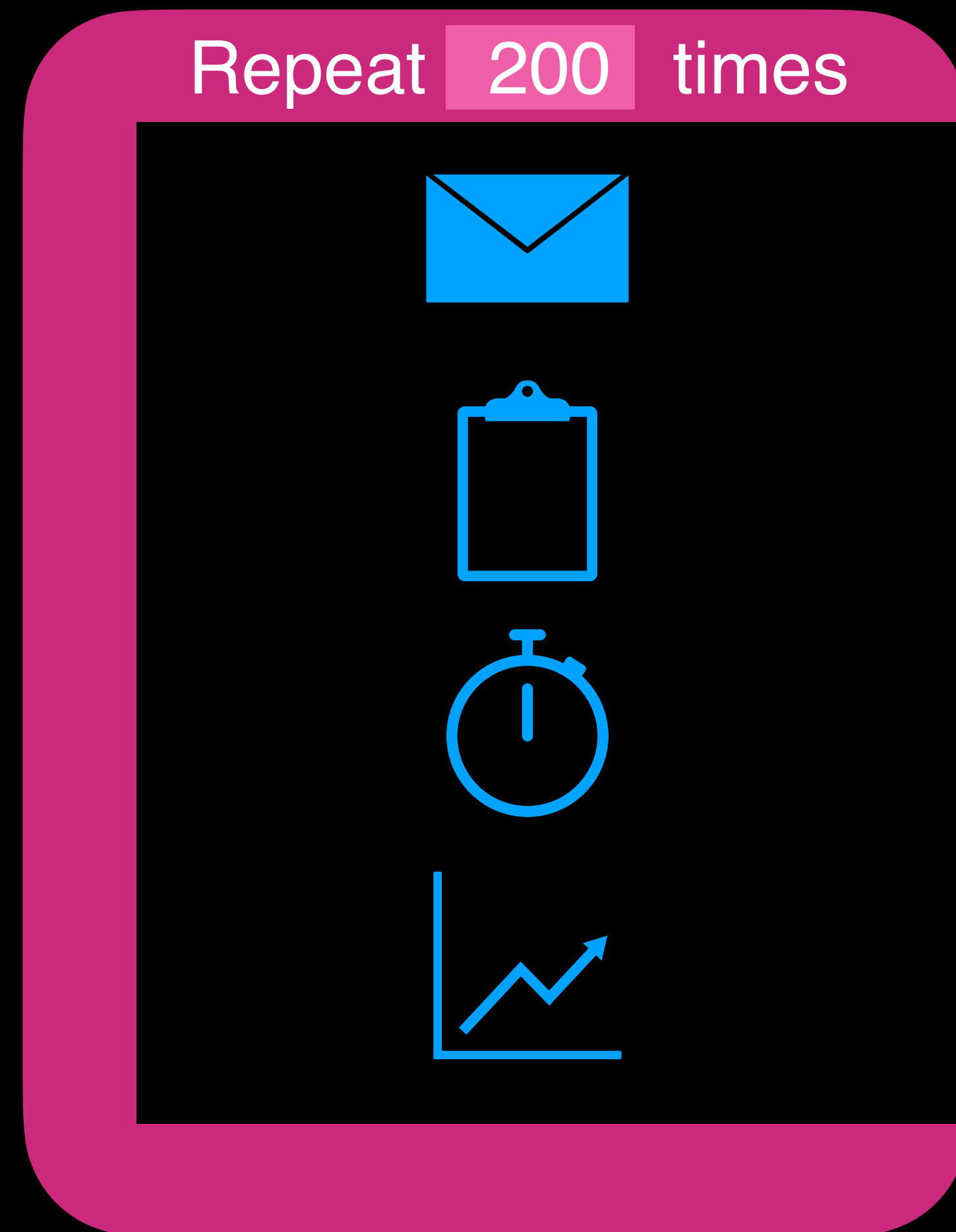
Loops



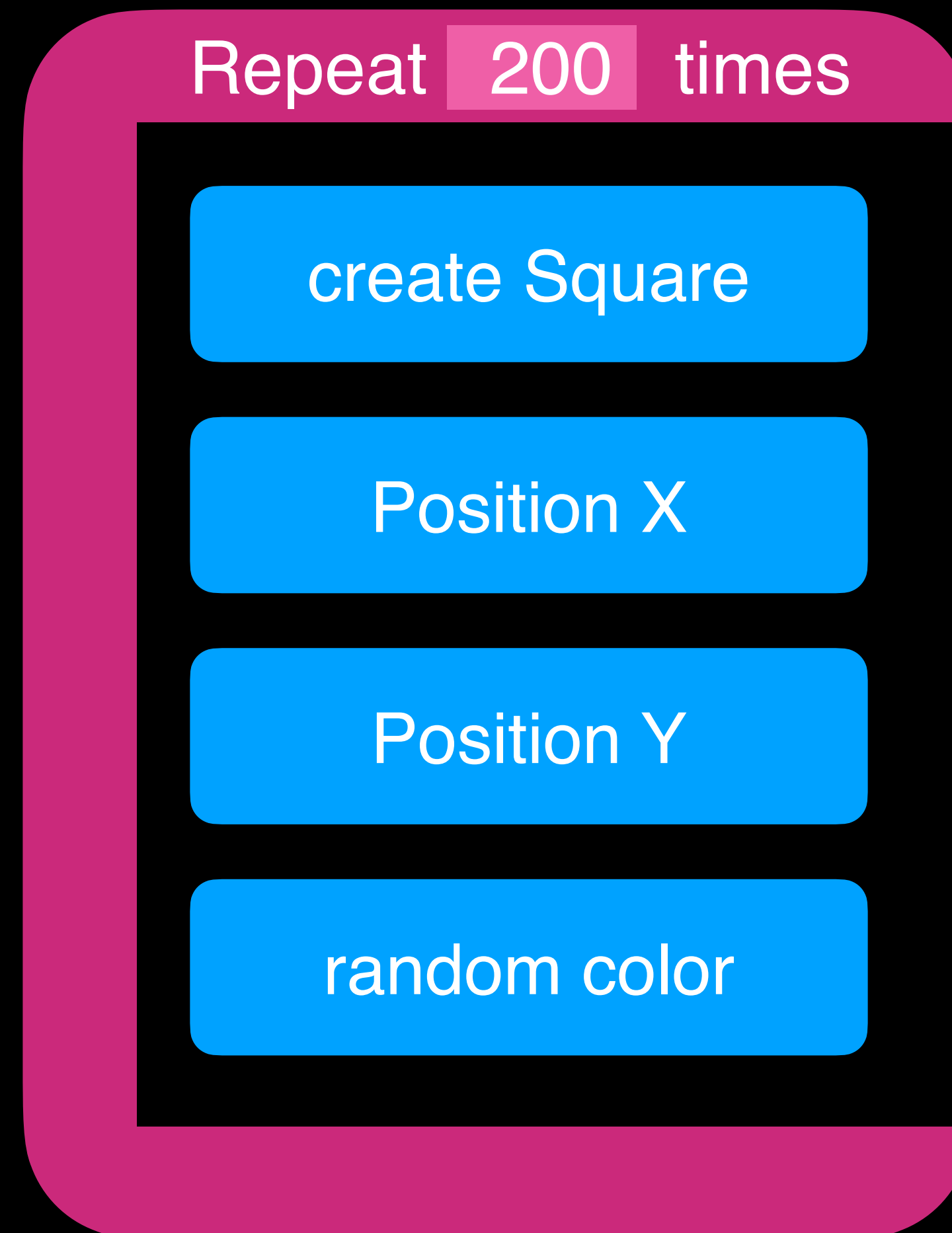
Loops

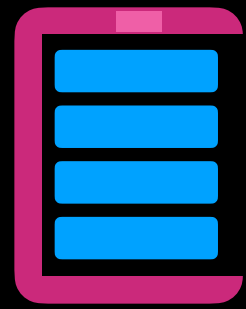


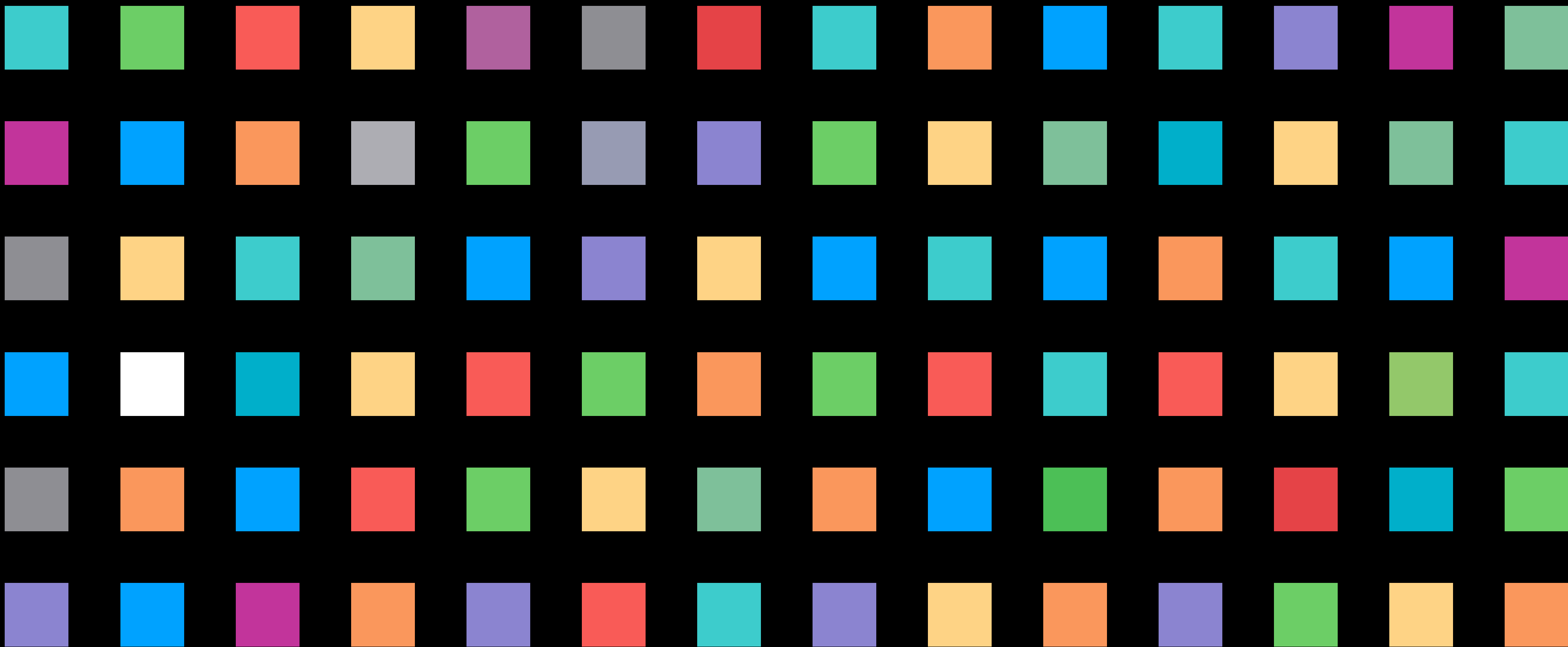
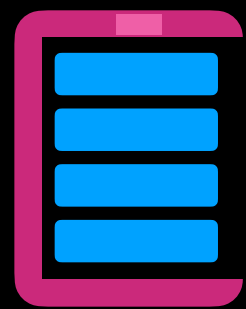
Loops



Loops







for


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



```
// Creating a loop based on a condition
```

```
for i in 0...2 {
```

```
    // Block of code to be repeated
```

```
    print("Olá Mundo")
```

```
}
```

Olá Mundo

Olá Mundo

Olá Mundo

```
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("Olá Mundo")
```

```
}
```

Olá Mundo

Olá Mundo

Olá Mundo

```
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

Hands on

while

```
// Variable to be used as initial value
```

```
var count: Int = 0
```

```
while count < 5 {
```

```
    print("count = \ (count)")
```

```
    // Increment the conditional
```

```
    count += 1
```

```
}
```

```
// Variable to be used as initial value
```

```
var count: Int = 0
```

```
while count < 5 {
```

```
    print("count = \count")
```

```
    // Increment the conditional
```

```
    count += 1
```

```
}
```

```
// Variable to be used as initial value
```

```
var count: Int = 0
```

```
while count < 5 {
```

```
    print("count = \ (count)")
```

```
    // Increment the conditional
```

```
    count += 1
```

```
}
```

```
// Variable to be used as initial value  
var count: Int = 0
```

```
while count < 5 {  
    print("count = \count")  
    // Increment the conditional  
    count += 1  
}
```

count = 0

```
// Variable to be used as initial value
```

```
var count: Int = 0
```

```
while count < 5 {
```

```
    print("count = \count")
```

```
    // Increment the conditional
```

```
    count += 1
```

```
}
```

```
count = 0
```

```
// Variable to be used as initial value  
var count: Int = 0
```

```
while count < 5 {  
    print("count = \count")  
    // Increment the conditional  
    count += 1  
}
```

```
count = 0  
count = 1
```



```
// Variable to be used as initial value  
var count: Int = 0
```

```
while count < 5 {  
    print("count = \$(count)")  
    // Increment the conditional  
    count += 1  
}
```

```
count = 0  
count = 1
```

```
// Variable to be used as initial value  
var count: Int = 0
```

```
while count < 5 {  
    print("count = \ (count)")  
    // Increment the conditional  
    count += 1  
}
```

```
count = 0  
count = 1  
count = 2
```

```
// Variable to be used as initial value  
var count: Int = 0
```

```
while count < 5 {  
    print("count = \$(count)")  
    // Increment the conditional  
    count += 1  
}
```

```
count = 0  
count = 1  
count = 2  
count = 3
```

```
// Variable to be used as initial value  
var count: Int = 0
```

```
while count < 5 {  
    print("count = \(count)")  
    // Increment the conditional  
    count += 1  
}
```

```
count = 0  
count = 1  
count = 2  
count = 3  
count = 4
```

```
// Variable to be used as initial value
```

```
var count: Int = 0
```

```
while count < 5 {
```

```
    print("count = \ (count)")
```

```
    // Increment the conditional
```

```
    count += 1
```

```
}
```

```
// Variable to be used as initial value
```

```
var count: Int = 0
```

```
while count < 5 {
```

```
    print("count = \ (count)")
```

```
    // Increment the conditional
```

```
    //count += 1
```

```
}
```

```
// Variable to be used as initial value
```

```
var count: Int = 0
```

```
while count < 5 {
```

```
    print("count = \(count)")
```

```
    // Increment the conditional
```

```
    //count += 1
```

```
}
```

PROBLEM: infinite loop

```
// Variable to be used as initial value
```

```
var count: Int = 0
```

```
while count < 5 {
```

```
    print("count = \(count)")
```

```
    // Increment the conditional
```

```
    //count += 1
```

```
}
```

PROBLEM: infinite loop

```
count = 0
```

```
count = 1
```

```
count = 2
```

```
count = 3
```

```
count = 4
```

```
count = 5
```

```
count = 6
```

```
count = 7
```

```
count = 8
```

```
count = 9
```

```
count = 10
```

```
count = 11
```

```
count = 12
```

```
count = 13
```

```
...
```


Hands on

repeat while

```
// Variable to be used as initial value
```

```
var count: Int = 0
```

```
while count < 5 {
```

```
    print("count = \ (count)")
```

```
    // Increment the conditional
```

```
    count += 1
```

```
}
```

```
// Variable to be used as initial value
```

```
var count: Int = 0
```

```
repeat {
```

```
    print("count = \$(count)")
```

```
    // Increment the conditional
```

```
    count += 1
```

```
} while count < 5
```

```
// Variable to be used as initial value
```

```
var count: Int = 0
```

```
repeat {
```

```
    print("count = \count")
```

```
    // Increment the conditional
```

```
    count += 1
```

```
} while count < 5
```

```
// Variable to be used as initial value  
var count: Int = 0
```

```
repeat {  
    print("count = \ (count)")  
    // Increment the conditional  
    count += 1  
} while count < 5
```

```
count = 0  
count = 1  
count = 2  
count = 3  
count = 4
```

```
// Variable to be used as initial value
```

```
var count: Int = 0
```

```
repeat {
```

```
    print("count = \(count)")
```

```
    // Increment the conditional
```

```
    count += 1
```

```
} while count < 5
```

```
count = 0
```

```
count = 1
```

```
count = 2
```

```
count = 3
```

```
count = 4
```

repeat executes 1 time before checking condition

Hands on


```
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"  
]
```

AAPL	150,34	-0,45%
BRL=X	3,121	+0,00%
IBOVESPA	64.938,02	-0,37%

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

```
aaplStock = [  
  "code" : "AAPL",  
  "value" : "150,34",  
  "variation" : "0,45%",  
  "volume" : "US$ 4B"  
]
```

AAPL	150,34	-0,45%
BRL=X	3,121	+0,00%
IBOVESPA	64.938,02	-0,37%
FIBR3.SA	34,01	-0,96%

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

```
aaplStock = [  
  "code" : "AAPL",  
  "value" : "150,34",  
  "variation" : "0,45%",  
  "volume" : "US$ 4B"  
]
```

AAPL	150,34	-0,45%
BRL=X	3,121	+0,00%
IBOVESPA	64.938,02	-0,37%
FIBR3.SA	34,01	-0,96%
HBOR3.SA	2,26	+1,35%

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



```
aaplStock = [  
  "code" : "AAPL",  
  "value" : "150,34",  
  "variation" : "0,45%",  
  "volume" : "US$ 4B"  
]
```



AAPL	150,34	-0,45%
BRL=X	3,121	+0,00%
IBOVESPA	64.938,02	-0,37%
FIBR3.SA	34,01	-0,96%
HBOR3.SA	2,26	+1,35%
ITSA4.SA	9,22	+0,44%

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

```
aaplStock = [  
  "code" : "AAPL",  
  "value" : "150,34",  
  "variation" : "0,45%",  
  "volume" : "US$ 4B"  
]
```

AAPL	150,34	-0,45%
BRL=X	3,121	+0,00%
IBOVESPA	64.938,02	-0,37%
FIBR3.SA	34,01	-0,96%
HBOR3.SA	2,26	+1,35%
ITSA4.SA	9,22	+0,44%
SAPR4.SA	10,65	+0,09%

```
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  
]
```

