

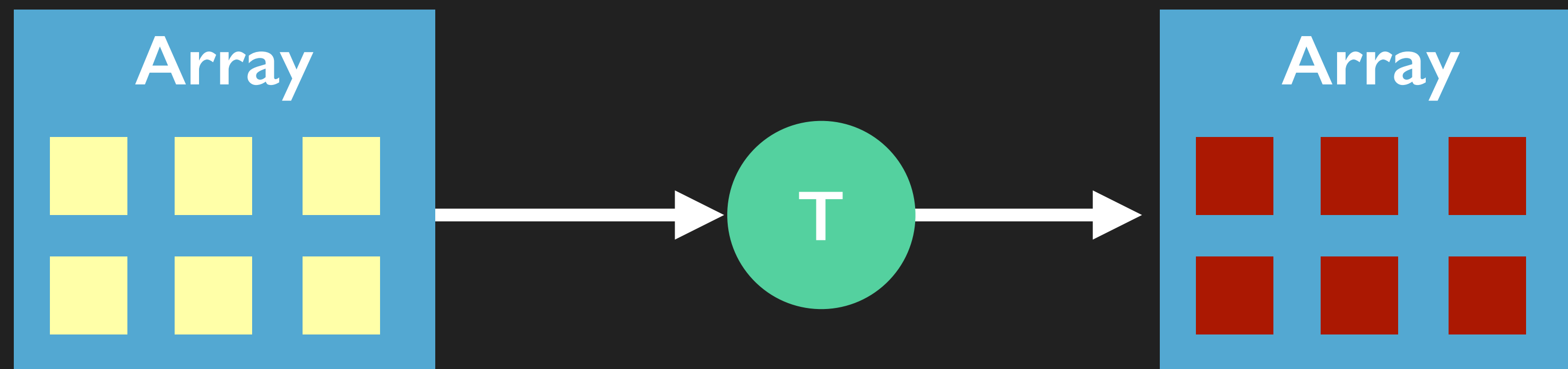


MAKE  
SCHOOL

# FILTER & MAP IN SWIFT

# WHAT ARE FILTER & MAP?

Functions that allow you to manipulate collections by applying a transform function



# FILTER

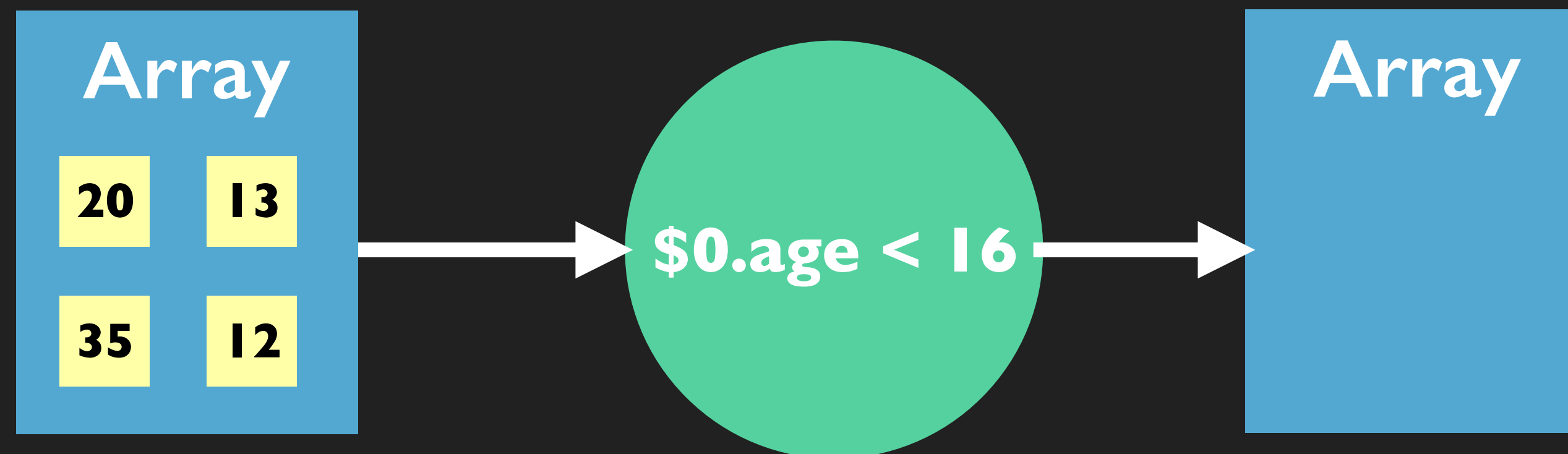
Allows you to remove elements from a collection based on a requirement

```
struct User {  
  var age: Int  
}
```

```
let users = [User(age: 20), User(age: 13),  
User(age: 35), User(age: 12)]  
let youngUsers = users.filter { $0.age < 16 }
```

# FILTER

```
let youngUsers = users.filter { $0.age < 16 }
```



# MAP

Allows you to transform an array by replacing each element with a new element

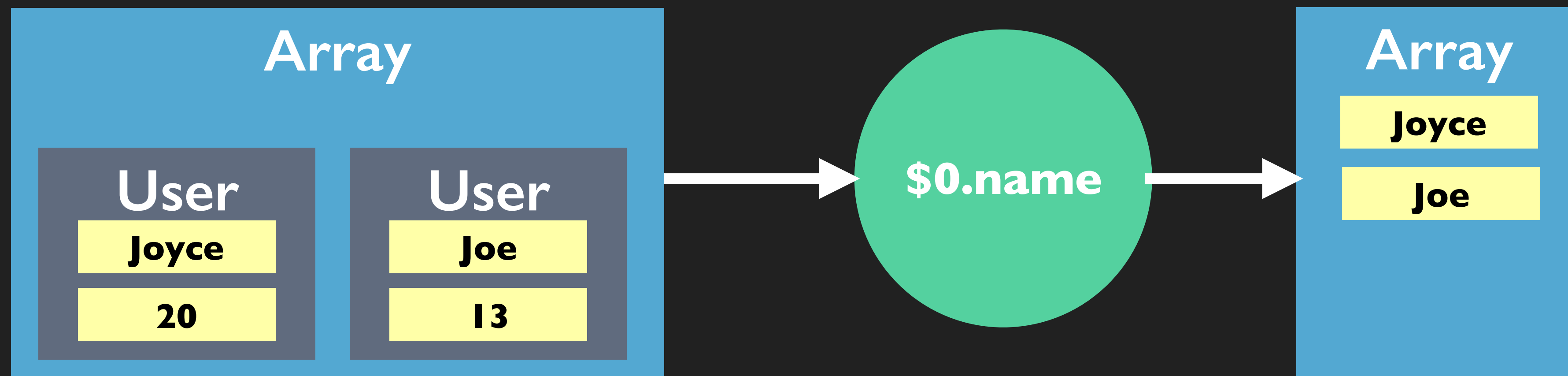
```
struct User {  
    var age: Int  
    var name: String  
}
```

```
let users = [User(age: 20, name: "Joyce"),  
User(age: 13, name: "Joe")]
```

```
let usernames = users.map { $0.name }
```

# MAP

```
let usernames = users.map { $0.name }
```



# MAP

```
let doubleNumbers = numbers.map { 2 * $0 }
```





# COMBINING MAP AND FILTER

```
let users = [User(age: 20, name:"Joyce"),  
User(age: 13, name:"Joe")]
```

```
let filteredUsernames =  
  users.filter { $0.age < 16 }.map { $0.name }
```

