Closures Exercises

Canvas: exercises-closures.zip

You can also see a description of the same exercises below

1.

Create a function makeCounter(initial), with the following functionality:

- reset()
- increment()
- decrement()
- getValue()

1.

Example use:

```
var counter = makeCounter(10);
counter.increment();
counter.getValue();  // => 11
counter.decrement();
counter.decrement();
counter.getValue();  // => 9
counter.reset();
counter.getValue();  // => 10
```

2.

Create a function makeCounter(initial), with the following functionality:

- reset(toValue)
- increment()
- decrement()
- getValue()

2.

Example use:

```
var counter = makeCounter(10);
counter.increment();
counter.getValue();  // => 11
counter.decrement();
counter.decrement();
counter.getValue();  // => 9
counter.reset(20);
counter.getValue();  // => 20
```

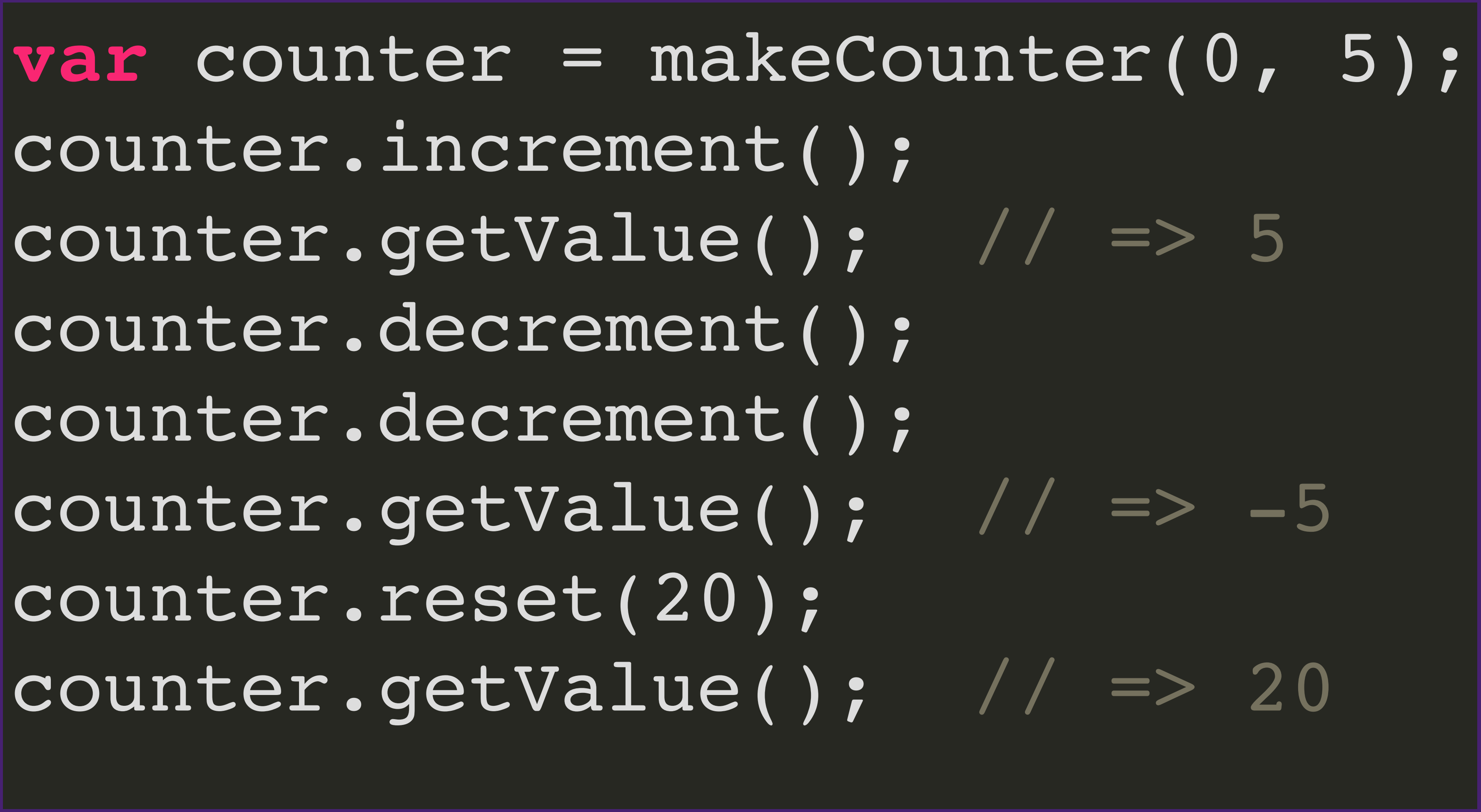
3.

Create a function makeCounter(initial, step), with the following functionality:

- reset(toValue)
- increment()
- decrement()
- getValue()

3.

Example use:



```
var counter = makeCounter(0, 5);
counter.increment();
counter.getValue();  // => 5
counter.decrement();
counter.decrement();
counter.getValue();  // => -5
counter.reset(20);
counter.getValue();  // => 20
```

4.

Create a function createAccount(), with the following functionality:

- deposit(funds)
- withdraw(funds)
- getBalance()

4.

Example use:

```
var account = createAccount();

account.deposit(100);
account.getBalance();   // => 100
account.withdraw(50);   // => 50
account.withdraw(100);  // => "Insufficient funds!"
account.getBalance();   // => 50
```

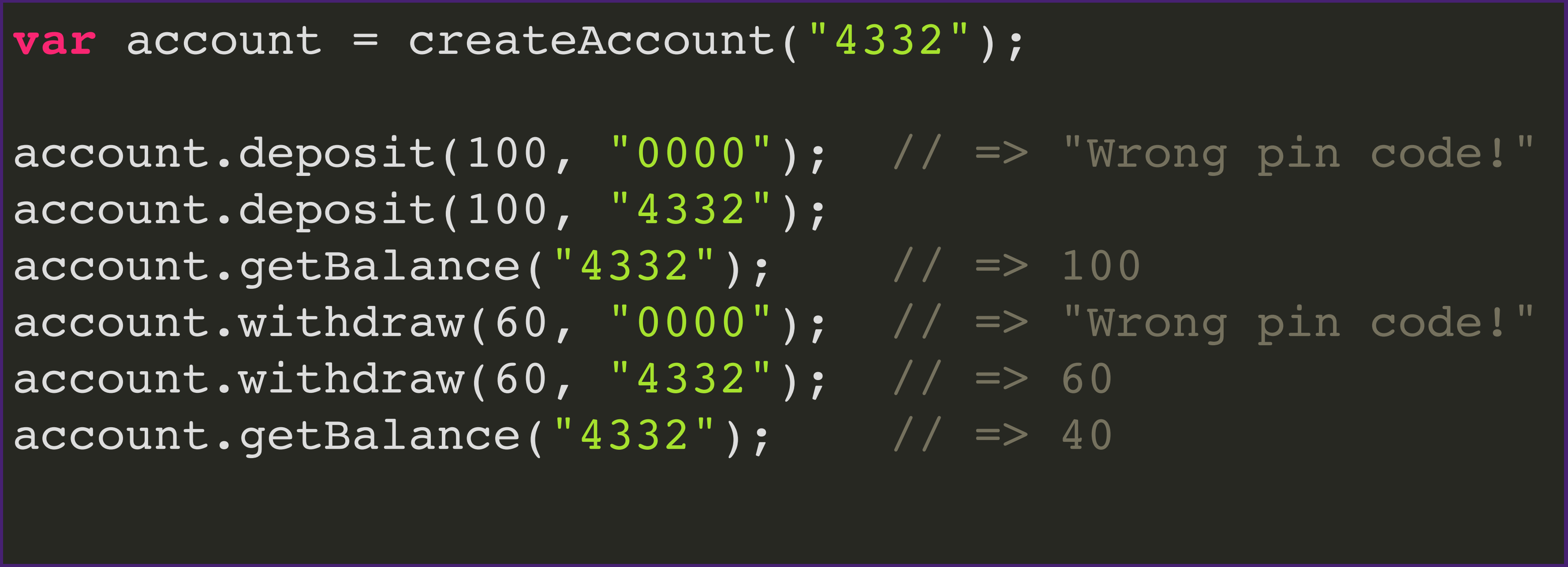
5.

Create a function createAccount(pin), with the following functionality:

- deposit(funds, pin)
- withdraw(funds, pin)
- getBalance(pin)

5.

Example use:



```
var account = createAccount("4332");

account.deposit(100, "0000");  // => "Wrong pin code!"
account.deposit(100, "4332");
account.getBalance("4332");    // => 100
account.withdraw(60, "0000");  // => "Wrong pin code!"
account.withdraw(60, "4332");  // => 60
account.getBalance("4332");    // => 40
```

6. (bonus)

Create a function createAccounts(pin), with the following functionality:

- addAccount(name, pin)
- getAccounts(pin)
- getBalances(pin)
- getBalance(account, pin)
- deposit(account, funds, pin)
- withdraw(account, funds, pin)

6. (bonus)

Example use:

```
var accounts = createAccounts("4332");

accounts.addAccount("savings", "4332");
accounts.addAccount("checking", "4332");
accounts.getAccounts("4332") // => ["savings", "checkings"]
accounts.deposit("savings", 100, "4332");
accounts.withdraw("savings", 20, "4332"); // => 20
accounts.getBalances("4332"); // => { savings: 80, checking: 0 }
accounts.getBalance("savings", "4332") // => 80
```