Explore

COLD CLOSURES COVE

ADDING A PASSENGER TRACKER

Closure functions can even modify bound variables in the background

```javascript
function buildCoveTicketMaker( transport ) {

        return function ( name ) {
            alert("Here is your transportation ticket via the " + transport + ".\n" +
                "Welcome to the Cold Closures Cove, " + name + "!");
        }
}
```

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```javascript
function buildCoveTicketMaker( transport ) {
        var passengerNumber = 0;
        return function ( name ) {

            alert("Here is your transportation ticket via the " + transport + ".\n" +
                    "Welcome to the Cold Closures Cove, " + name + "!" +
                                                            );
        }
}
```

We'll start every ticket maker's tracker at 0 passengers.

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```javascript
function buildCoveTicketMaker( transport ) {
        var passengerNumber = 0;
        return function ( name ) {
            passengerNumber++;

        alert("Here is your transportation ticket via the " + transport + ".\n" +
                "Welcome to the Cold Closures Cove, " + name + "!" +
                                                    );
        }
}
```

When a particular ticket maker is called, we know a new passenger should be added, so we'll increase the tracker.

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```javascript
function buildCoveTicketMaker( transport ) {
        var passengerNumber = 0;
        return function ( name ) {
            passengerNumber++;
            alert("Here is your transportation ticket via the " + transport + ".\n" +
                    "Welcome to the Cold Closures Cove, " + name + "!" +
                    "You are passenger #" + passengerNumber + ".");
        }
}
```

Each time a ticket is "printed," this passengerNumber will contain the precise amount of times this kind of ticket has been given.

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```javascript
function buildCoveTicketMaker( transport ) {
        var passengerNumber = 0;
        return function ( name ) {
            passengerNumber++;
            alert("Here is your transportation ticket via the " + transport + ".\n" +
                    "Welcome to the Cold Closures Cove, " + name + "!" +
                    "You are passenger #" + passengerNumber + ".");
        }
}
```

```javascript
var getSubmarineTicket = buildCoveTicketMaker("Submarine");
getSubmarineTicket;
```

```javascript
function (name) {
    passengerNumber++;
    alert("Here is your transportation ticket via the " + transport + ".\n" +
            "Welcome to the Cold Closures Cove, " + name + "!\n" +
            "You are passenger #" + passengerNumber + ".");
}
```

Notice that no initial value for passengerNumber is evident in our new function. It's value starts at 0 and is adjusted with each call to getSubmarineTicket.

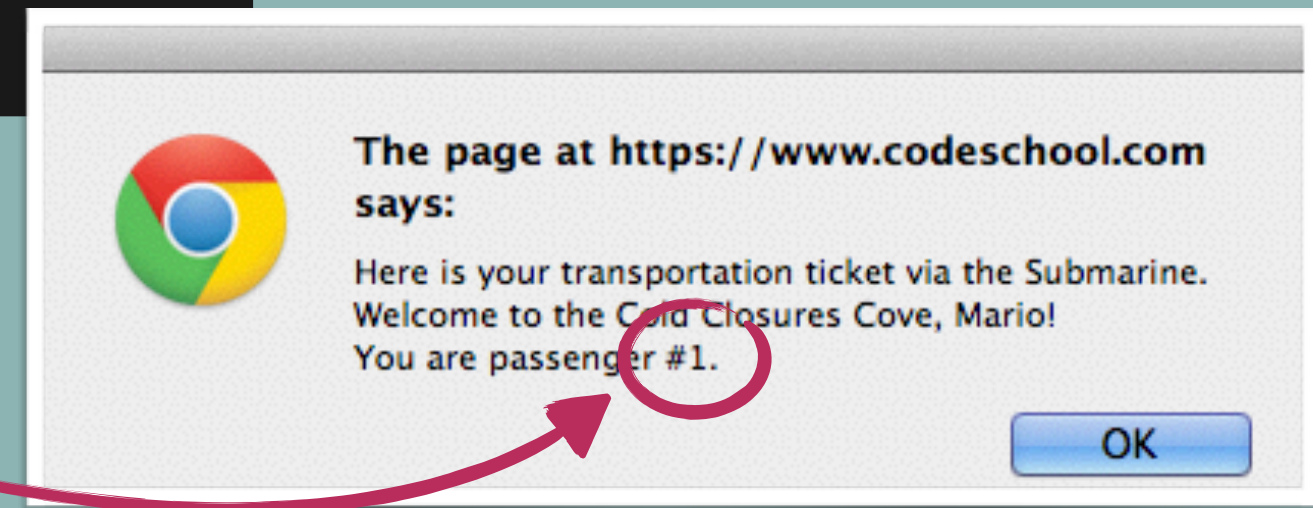# ADDING A PASSENGER TRACKER

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```javascript
function buildCoveTicketMaker( transport ) {
        var passengerNumber = 0;
        return function ( name ) {
            passengerNumber++;
            alert("Here is your transportation ticket via the " + transport + ".\n" +
                    "Welcome to the Cold Closures Cove, " + name + "!" +
                    "You are passenger #" + passengerNumber + ".");
        }
 }
```

```javascript
var getSubmarineTicket = buildCoveTicketMaker("Submarine");
getSubmarineTicket("Mario");
```

On our first call to the new getSubmarineTicket,
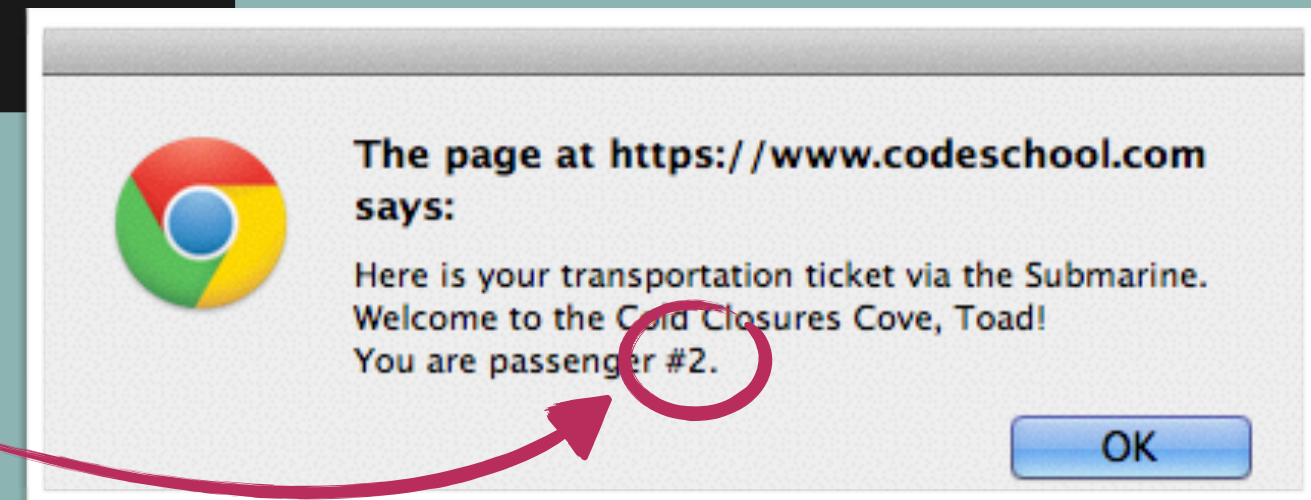
passengerNumber is incremented to 1.

The page at https://www.codeschool.com says:

Here is your transportation ticket via the Submarine.
Welcome to the Cold Closures Cove, Mario!
You are passenger #1.

OK

ADDING A PASSENGER TRACKER

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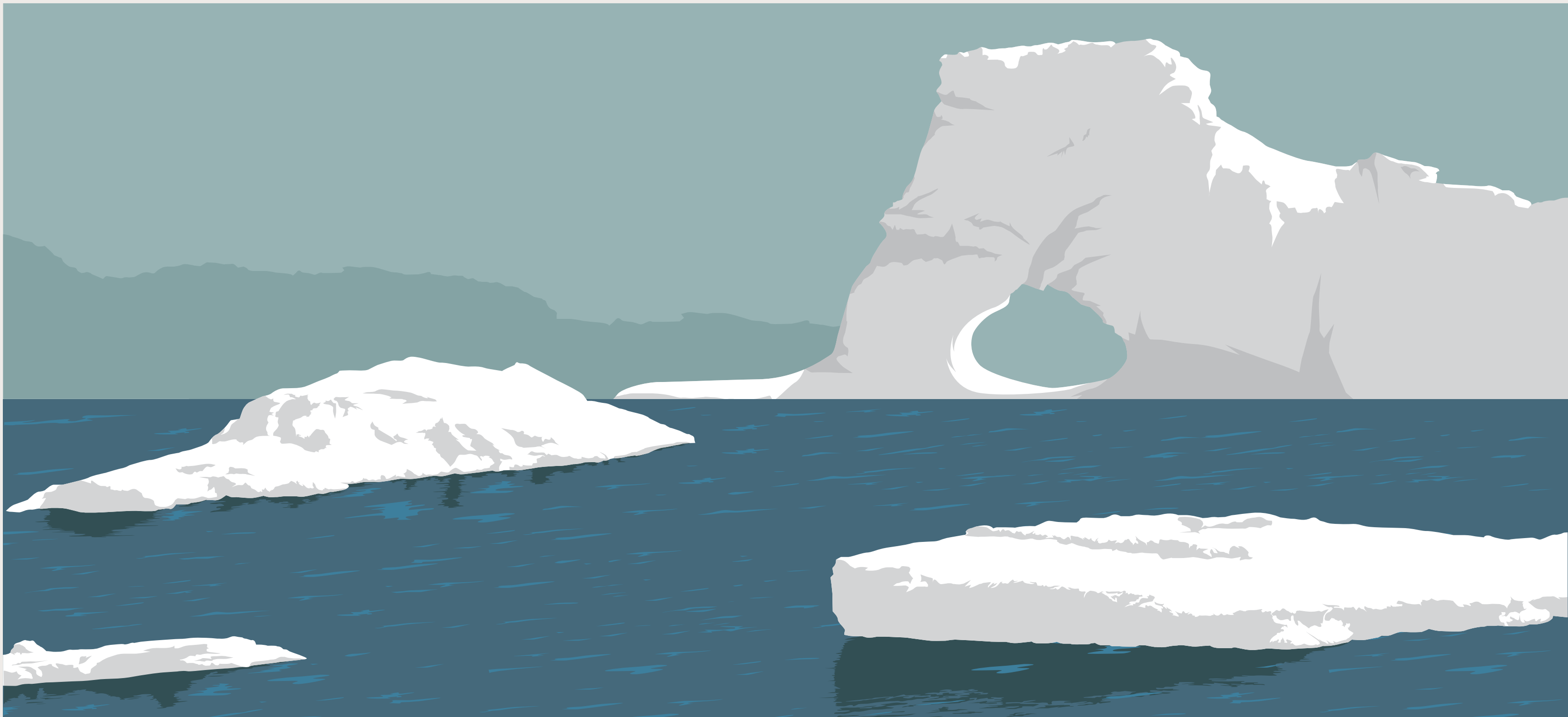
```javascript
function buildCoveTicketMaker( transport ) {
        var passengerNumber = 0;
        return function ( name ) {
            passengerNumber++;
            alert("Here is your transportation ticket via the " + transport + ".\n" +
                    "Welcome to the Cold Closures Cove, " + name + "!" +
                    "You are passenger #" + passengerNumber + ".");
        }
 }
```

```javascript
var getSubmarineTicket = buildCoveTicketMaker("Submarine");
getSubmarineTicket("Toad");
```

Another call to getSubmarineTicket has passengerNumber incremented to 2! Wow, even though the function's local scope disappeared after Mario's ticket, it KEPT the progress of passengerNumber!

The page at https://www.codeschool.com says:

Here is your transportation ticket via the Submarine.
Welcome to the Cold Closures Cove, Toad!
You are passenger #2.

OK

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