# Coding challenge :: Function :: I

Write a function to calculate the balance of a list of transactions based on the category and date range like so:

```
/**
 * @param {array} transactions - The transactions list.
 * @param {string} category - The name of the category
 * @param {date} start - The start date of the date range. Inclusive.
 * @param {date} end - The end date of the date range. Exclusive.
 * @returns {number} - The balance number
 */
function getBalanceByCategoryInPeriod (
 transactions = [],
 category,
 start,
 end
) { }
...
```

#### Input

Remember, a transaction has a shape like this:

```
id: 3,
sourceAccount: 'saving_account',
targetAccount: 'starbucks',
amount: -10,
category: 'eating_out',
time: '2018-03-02T10:34:30.000Z'
}
```

#### Output

The correct balance of applicable transactions. If there's no applicable transactions, return  $\emptyset$  .

### Example

Input transactions:

```
const sampleTransactions = [
   id: 123,
   sourceAccount: 'my_account',
   targetAccount: 'supermarket',
   amount: -14,
   category: 'groceries',
   time: '2018-03-04'
 },
 {
   id: 125,
   sourceAccount: 'my_account',
   targetAccount: 'coffee_shop',
   amount: -30,
   category: 'eating_out',
   time: '2018-03-12'
 },
   id: 124,
   sourceAccount: 'my_account',
   targetAccount: 'supermarket',
   amount: -3,
   category: 'groceries',
   time: '2018-03-15'
 },
 {
   id: 126,
   sourceAccount: 'my_account',
   targetAccount: 'cinema',
   amount: -12,
   category: 'movies',
```

```
time: '2018-05-15'
},
]
```

## Expected Output :

```
getBalanceByCategoryInPeriod(
   sampleTransactions,
   "groceries",
   new Date("2018-03-01"),
   new Date("2018-03-31")
);
// -18
```