Challenge 1: For each

The callback function gets called one time for each item in the array. The callback function gets called with the individual array item and the index for that item.

const todos = ['Order cat food', 'Clean kitchen', 'Buy food', 'Do work','Exercise']

Challenge 2: For loop

Print the names of the top three players on the team. This would print a message for Breanna, Kathi, and Hunter. It would not print a message for Andrew, since he is not in the top three.

const players = ['Breanna', 'Kathi', 'Hunter', 'Andrew']

Challenge 3: filter

Return a list of the todos that still need to be completed

const todos = [{

text: 'Order cat food',

completed: false

}, {

text: 'Clean kitchen',

completed: true

}, {

text: 'Do work',

completed: false

}]

Challenge 4: sort

Use the ‘sort’ to rearrange the todos. Keep the incomplete todos at the top of the list and move the completed ones to the bottom.

const todos = [{

text: 'Buy food',

completed: true

}, {

text: 'Do work',

completed: false

}, {

text: 'Exercise',

completed: true

}]

Challenges 5:

const companies = [

  {name: "Company One", category: "Finance", start: 1981, end: 2003},

  {name: "Company Two", category: "Retail", start: 1992, end: 2008},

  {name: "Company Three", category: "Auto", start: 1999, end: 2007},

  {name: "Company Four", category: "Retail", start: 1989, end: 2010},

  {name: "Company Five", category: "Technology", start: 2009, end: 2014},

  {name: "Company Six", category: "Finance", start: 1987, end: 2010},

  {name: "Company Seven", category: "Auto", start: 1986, end: 1996},

  {name: "Company Eight", category: "Technology", start: 2011, end: 2016},

  {name: "Company Nine", category: "Retail", start: 1981, end: 1989}

];

const ages = [33, 12, 20, 16, 5, 54, 21, 44, 61, 13, 15, 45, 25, 64, 32];

Instructions

===For loop

Get the number of companies

===forEach

1. Get the number of companies

2. Get the companies name

3. Get the companies category

=== filter

1. Get all the ages 21 and over

2. Get the retail companies

3. Get all the companies from the 80s (between 1980 and 1990)

4. Get the companies that lasted 10 years or more

=== map

1. Create an array of company names

2. Create an array of categories and start date

3. Create an array of company name and end date

=== sort

1. Sort the companies by the start date

2. Sort ages (lower to highest)

Challenges 6:

Wesbos

    const inventors = [

      { first: 'Albert', last: 'Einstein', year: 1879, passed: 1955 },

      { first: 'Isaac', last: 'Newton', year: 1643, passed: 1727 },

      { first: 'Galileo', last: 'Galilei', year: 1564, passed: 1642 },

      { first: 'Marie', last: 'Curie', year: 1867, passed: 1934 },

      { first: 'Johannes', last: 'Kepler', year: 1571, passed: 1630 },

      { first: 'Nicolaus', last: 'Copernicus', year: 1473, passed: 1543 },

      { first: 'Max', last: 'Planck', year: 1858, passed: 1947 },

      { first: 'Katherine', last: 'Blodgett', year: 1898, passed: 1979 },

      { first: 'Ada', last: 'Lovelace', year: 1815, passed: 1852 },

      { first: 'Sarah E.', last: 'Goode', year: 1855, passed: 1905 },

      { first: 'Lise', last: 'Meitner', year: 1878, passed: 1968 },

      { first: 'Hanna', last: 'Hammarström', year: 1829, passed: 1909 }

    ];

const people = ['Beck, Glenn', 'Becker, Carl', 'Beckett, Samuel', 'Beddoes, Mick', 'Beecher, Henry', 'Beethoven, Ludwig', 'Begin, Menachem', 'Belloc, Hilaire', 'Bellow, Saul', 'Benchley, Robert', 'Benenson, Peter', 'Ben-Gurion, David', 'Benjamin, Walter', 'Benn, Tony', 'Bennington, Chester', 'Benson, Leana', 'Bent, Silas', 'Bentsen, Lloyd', 'Berger, Ric', 'Bergman, Ingmar', 'Berio, Luciano', 'Berle, Milton', 'Berlin, Irving', 'Berne, Eric', 'Bernhard, Sandra', 'Berra, Yogi', 'Berry, Halle', 'Berry, Wendell', 'Bethea, Erin', 'Bevan, Aneurin', 'Bevel, Ken', 'Biden, Joseph', 'Bierce, Ambrose', 'Biko, Steve', 'Billings, Josh', 'Biondo, Frank', 'Birrell, Augustine', 'Black Elk', 'Blair, Robert', 'Blair, Tony', 'Blake, William'];

Instructions

 // Array.prototype.filter()

 Filter the list of inventors for those who were born in the 1500's

// Array.prototype.map()

Give us an array of the inventor first and last names

 // Array.prototype.sort()

Sort the inventors by birthdate, oldest to youngest

Sort the inventors by years lived

Solution 1:

const todos = ['Order cat food', 'Clean kitchen', 'Buy food', 'Do work', 'Exercise']

// This will print a numbered list for each todo item

todos.forEach(function (todo, index) {

const num = index + 1

console.log(`${num}. ${todo}`)

})

Solution 2:

const players = ['Breanna', 'Kathi', 'Hunter', 'Andrew']

**for** (let count = 0; count < 3 && count < players.length; count++) {

const num = count + 1

const player = players[count]

console.log(`${num}. ${player}`)

}

Solution 3:

const todos = [{

text: 'Order cat food',

completed: false

}, {

text: 'Clean kitchen',

completed: true

}, {

text: 'Do work',

completed: false

}]

const getThingsToDo = function (todos) {

**return** todos.filter(function (todo) {

**return** !todo.completed

})

}

// Will print an array of all todos that still need to be completed

console.log(getThingsToDo(todos))

Solution 4:

const todos = [{

text: 'Buy food',

completed: true

}, {

text: 'Do work',

completed: false

}, {

text: 'Exercise',

completed: true

}]

const sortTodos = function (todos) {

todos.sort(function (a, b) {

**if** (!a.completed && b.completed) {

**return** -1

} **else if** (!b.completed && a.completed) {

**return** 1

} **else** {

**return** 0

}

})

}

sortTodos(todos)

console.log(todos)

Solution 5:

Solution 6: