MORE ARRAY TASKS

(Individual or pair work. ***Just do as many of these as you can***...)

1. Write a program that shows a random aphorism as below when the HTML page is loaded.

First, copy the files from first Array Warm-up task and save them as **09.arrays_more_tasks_1.html** and **09.arrays_more_tasks_1.js**. Then, modify the code to meet the requirements of this program. Finally, test your program by refreshing the page several times.

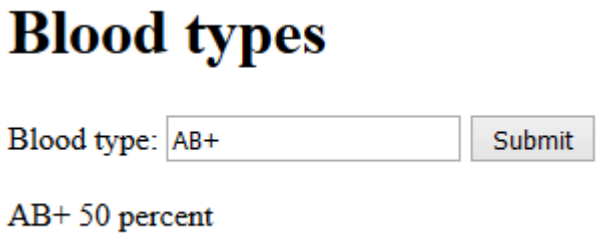
Hints:

1. In your JavaScript code, create an array that you initialize with five aphorisms. Any aphorisms will do (you can also make them up yourself).
2. See a previous exercise on how to generate random numbers. You will use a randomised number as the array index in this task.

2. Write a program that allows the user to enter a blood type. When the user clicks the "**Submit**" button, the program shows the percentage of the blood type found in the following array:

```
var bloodTypes = ["A+", "O-", "AB+", "O+", "AB+", "AB+", "O-", "AB+", "O-", "AB+"];
```

In the example below, the user has entered "AB+" as the blood type and the program has printed "AB+ 50 percent" as the answer.



INSTRUCTION

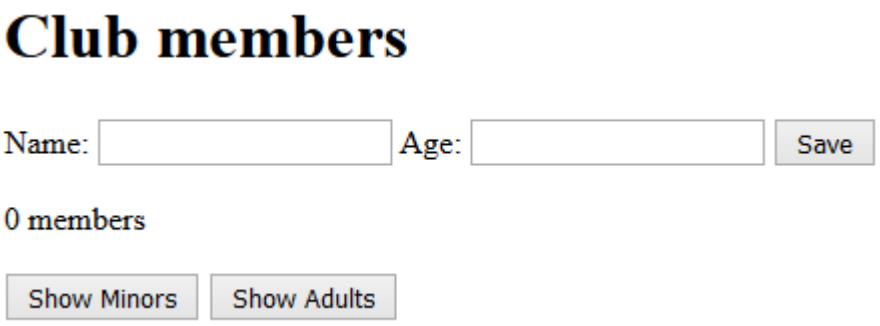
First, copy the files from first Array Warm-up task and save them as **09.arrays_more_tasks_2.html** and **09.arrays_more_tasks_2.js**. Then, modify the code for this program.

- ✓ **NB!** Download this PDF file. Then copy/paste the *array definition* from the downloaded PDF file to your JavaScript code. Do not copy/paste the code directly from the browser window.
- ✓ In this program, you need an ***if** statement* inside of the body of a ***for** loop*.
- ✓ In your code, remember to use the ***length*** property of the array.

3 a) Club Members

Write a program that allows the user to enter names and ages of club members.

First, copy the files from the example *09.array_example_2* in the "Array Warm-up Tasks" and save them as **09.arrays_more_tasks_3.html** and **09.arrays_more_tasks_3.js**. Then, modify the code for this program.



Note: The program shows the ***current number of club members*** as above.

When the user clicks on the button "**Show minors**", the program shows a list of those club members who are minors. Example:

Jack, 15 years
Susan, 17 years
Matt, 15 years

When the user clicks on the button "**Show adults**", the program shows a list of those club members who are adults. Example:

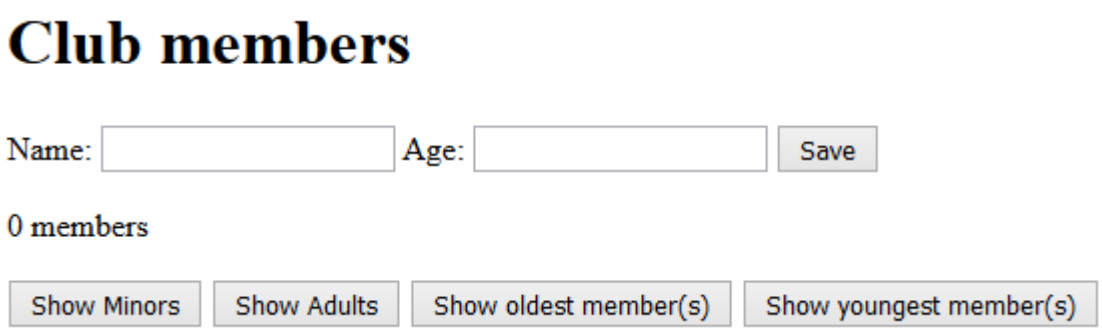
Cecilia, 25 years
Frank, 22 years

Hints:

1. See the code in the previous "Array Warm-up Tasks" to get an idea how to ***use two arrays in this task***.
2. When you create the output text, you can insert line breaks by including HTML break tags in the output text.

```
var outputText = "This is<br />shown on<br />three lines";
document.getElementById("divOutput").innerHTML = outputText;
```

3 b) Add more buttons to your 'Club members' page as below.



When the user clicks on the button "**Show oldest member(s)**", the program shows the oldest club member (or several club members if they are of the same age). Example:

Cecilia, 25 years

When the user clicks on the button "**Show youngest member(s)**", the program shows the youngest club member (or several club members if they are of the same age). Example:

Jack, 15 years
Matt, 15 years

Hints: First, determine the highest age. Then list all club members who are of the highest age. **NB!** This time, *sorting an array is no option*, because you are using two "synchronised" arrays.

MORE ADVANCED OPTIONAL TASKS

4. Finnish lottery numbers

Write a program that generates 7 unique lottery numbers (no duplicate numbers allowed) and shows them in ascending order. Each lottery number is a random integer between 1 and 39.

Lottery Numbers

4 7 12 15 22 28 30

Save the code files as **09.arrays_more_tasks_4.html** and **09.arrays_more_tasks_4.js**

5. Blood type distribution

Make a new version of the Blood Type program. This time, just show the blood type distribution in the array. **NB!** Suppose that we do ***not*** know beforehand what kind of blood type codes there can be in the array. In the output, the lines are shown in ascending order by blood type.

Blood Type Distribution

10 %: A+
50 %: AB+
20 %: O+
20 %: O-

Save the code files as **09.arrays_more_tasks_5.html** and **09.arrays_more_tasks_5.js**