

## Exercise – array iteration, 6p

Students.js includes an array of 10 students. Each student is an object having multiple of properties.

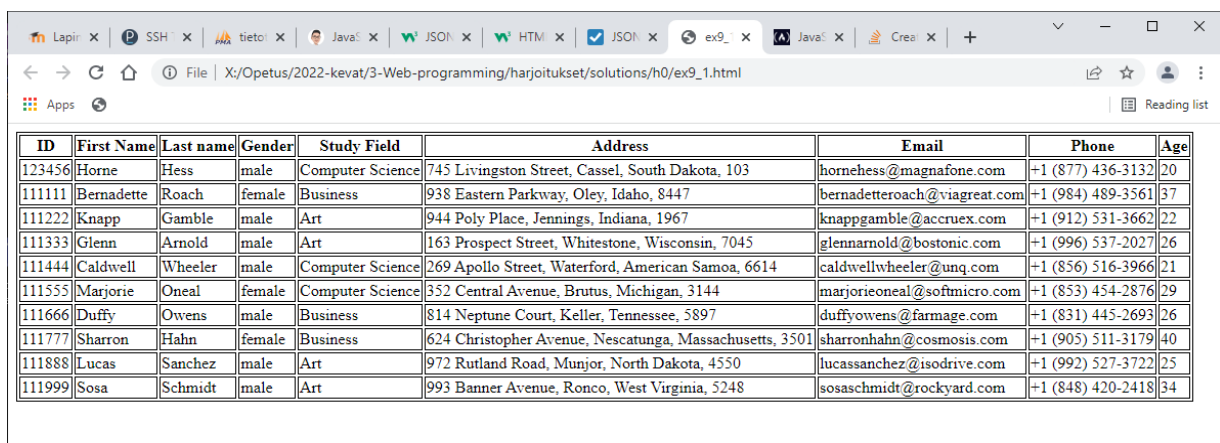
You should first download students.js file from moodle and then make your own hml file in which you include students.js

```
<html>
  <head>
    <script src="students_json.js"></script>
  </head>

  <body>

    <script>
      console.log(students)
    </script>
  </body>
</html>
```

1. Show student information on HTML table (but NOT courses\_done). 1p



The screenshot shows a web browser window with multiple tabs. The active tab displays a table of student information. The table has 9 columns: ID, First Name, Last name, Gender, Study Field, Address, Email, Phone, and Age. There are 10 rows of student data.

ID	First Name	Last name	Gender	Study Field	Address	Email	Phone	Age
123456	Horne	Hess	male	Computer Science	745 Livingston Street, Cassel, South Dakota, 103	hornehess@magnafone.com	+1 (877) 436-3132	20
111111	Bernadette	Roach	female	Business	938 Eastern Parkway, Oley, Idaho, 8447	bernadetteroach@viagreat.com	+1 (984) 489-3561	37
111222	Knapp	Gamble	male	Art	944 Poly Place, Jennings, Indiana, 1967	knappgamble@accruex.com	+1 (912) 531-3662	22
111333	Glenn	Arnold	male	Art	163 Prospect Street, Whitestone, Wisconsin, 7045	glennarnold@bostonic.com	+1 (996) 537-2027	26
111444	Caldwell	Wheeler	male	Computer Science	269 Apollo Street, Waterford, American Samoa, 6614	caldwellwheeler@unq.com	+1 (856) 516-3966	21
111555	Marjorie	Oneal	female	Computer Science	352 Central Avenue, Brutus, Michigan, 3144	marjorieoneal@softmicro.com	+1 (853) 454-2876	29
111666	Duffy	Owens	male	Business	814 Neptune Court, Keller, Tennessee, 5897	duffyowens@farmage.com	+1 (831) 445-2693	26
111777	Sharron	Hahn	female	Business	624 Christopher Avenue, Nescatunga, Massachusetts, 3501	sharronhahn@cosmosis.com	+1 (905) 511-3179	40
111888	Lucas	Sanchez	male	Art	972 Rutland Road, Munjor, North Dakota, 4550	lucassanchez@isodrive.com	+1 (992) 527-3722	25
111999	Sosa	Schmidt	male	Art	993 Banner Avenue, Ronco, West Virginia, 5248	sosaschmidt@rockyard.com	+1 (848) 420-2418	34

## 2. Create radio buttons "All", "Men", "Women" and filter the data accordingly. 1p

Choose filtering option  
All ☐ Men ☐ Women ☒

ID	First Name	Last name	Gender	Study Field	Address	Email	Phone	Age
111111	Bernadette	Roach	female	Business	938 Eastern Parkway, Oley, Idaho, 8447	bernadetteroach@viagreat.com	+1 (984) 489-3561	37
111555	Marjorie	Oneal	female	Computer Science	352 Central Avenue, Brutus, Michigan, 3144	marjorieoneal@softmicro.com	+1 (853) 454-2876	29
111777	Sharron	Hahn	female	Business	624 Christopher Avenue, Nescatunga, Massachusetts, 3501	sharronhahn@cosmosis.com	+1 (905) 511-3179	40

Hint how to make the radio buttons:

```
All <input type="radio" id="all" value="all" name="sex" checked>
Men <input type="radio" id="men" value="men" name="sex">
Women <input type="radio" id="women" value="women" name="sex">
```

Hint for making the event listeners in JavaScript code:

```
document.getElementsByName("sex").forEach(radio => radio.addEventListener('change', filterStudents))
```

How to find out which was selected from the radio buttons:

```
function sexSelected () {
    let rButtons = document.getElementsByName("sex")
    for(i=0; i < rButtons.length; i++) {
        //console.log("checked = " + rButtons[i].checked)
        if (rButtons[i].checked == true) {
            return rButtons[i].value
        }
    }
    return "all"
}
```

3. Create a select menu which includes the following options:

- All
- Computer Science
- Business
- Art

You have to filter the data according to selections and also take into account the filtering in previous exercise. 1p

The screenshot shows a web browser window with a URL: `X:/Opetus/2022-kevat/3-Web-programming/harjoitukset/solutions/h0/ex9_1.html`. The page has a title "Choose filtering option (sex)". Below the title, there are radio buttons for "All", "Men", "Women", and "All" (the second "All" is likely a typo for "None" or "All" in the original image). Below the radio buttons, there is a dropdown menu labeled "Choose study Programme" with "Computer Science" selected. Below the dropdown menu, there is a table with 9 columns: ID, First Name, Last name, Gender, Study Field, Address, Email, Phone, and Age. The table contains two rows of data.

ID	First Name	Last name	Gender	Study Field	Address	Email	Phone	Age
123456	Horne	Hess	male	Computer Science	745 Livingston Street, Cassel, South Dakota, 103	hornehess@magnafone.com	+1 (877) 436-3132	20
111444	Caldwell	Wheeler	male	Computer Science	269 Apollo Street, Waterford, American Samoa, 6614	caldwellwheeler@unq.com	+1 (856) 516-3966	21

Hint for making the selection

```
<select id="study_programme">
  <option value="all">All</option>
  <option value="Computer Science">Computer Science</option>
  <option value="Business">Business</option>
  <option value="Art">Art</option>
</select>
```

How to make event listener

```
document.getElementById("study_programme").addEventListener('change', filterStudents)
```

4. Add radio buttons for choosing how sort the students list. “Alfabetical” orders the students according to students last name. 1p

- Alfabetical
- Age

Choose filtering option (sex)

All ☒ Men ☐ Women ☐

Choose study Programme Computer Science

Choose sort order

Alfabetical ☐ Age ☒

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123456	Horne	Hess	male	Computer Science	745 Livingston Street, Cassel, South Dakota, 103	hornehess@magnafone.com	+1 (877) 436-3132	20
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5. Add one more column which is telling how many credits the student has all together. You have to count it from student’s courses\_done array. Reduce iteration method would be good choice for this. 2p

Choose filtering option (sex)

All ☒ Men ☐ Women ☐

Choose study Programme All

Choose sort order

Alfabetical ☒ Age ☐

ID	First Name	Last name	Gender	Study Field	Address	Email	Phone	Age	Credits
111333	Glenn	Arnold	male	Art	163 Prospect Street, Whitestone, Wisconsin, 7045	glennarnold@bostonic.com	+1 (996) 537-2027	26	37
111222	Knapp	Gamble	male	Art	944 Poly Place, Jennings, Indiana, 1967	knappgamble@accruex.com	+1 (912) 531-3662	22	39
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