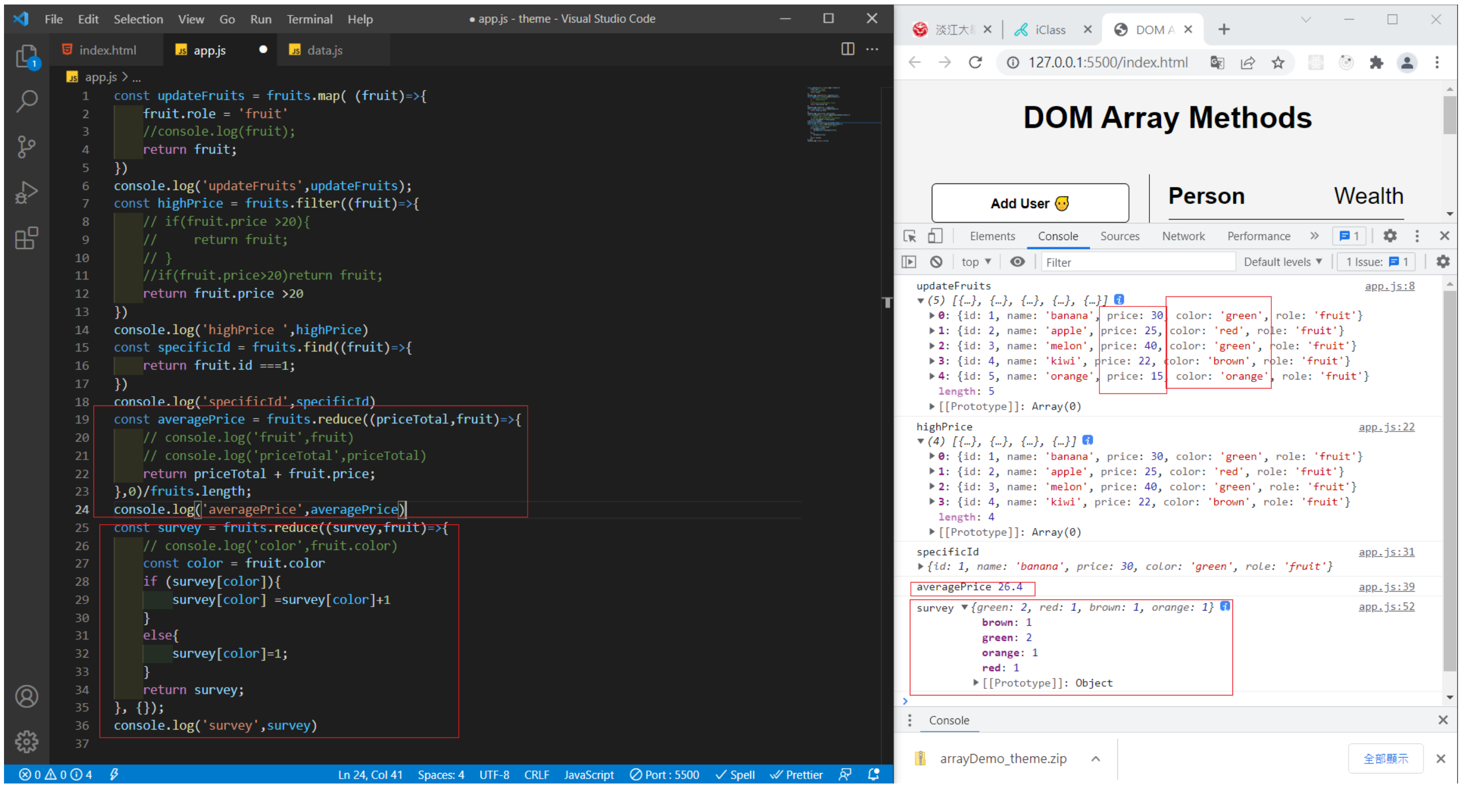
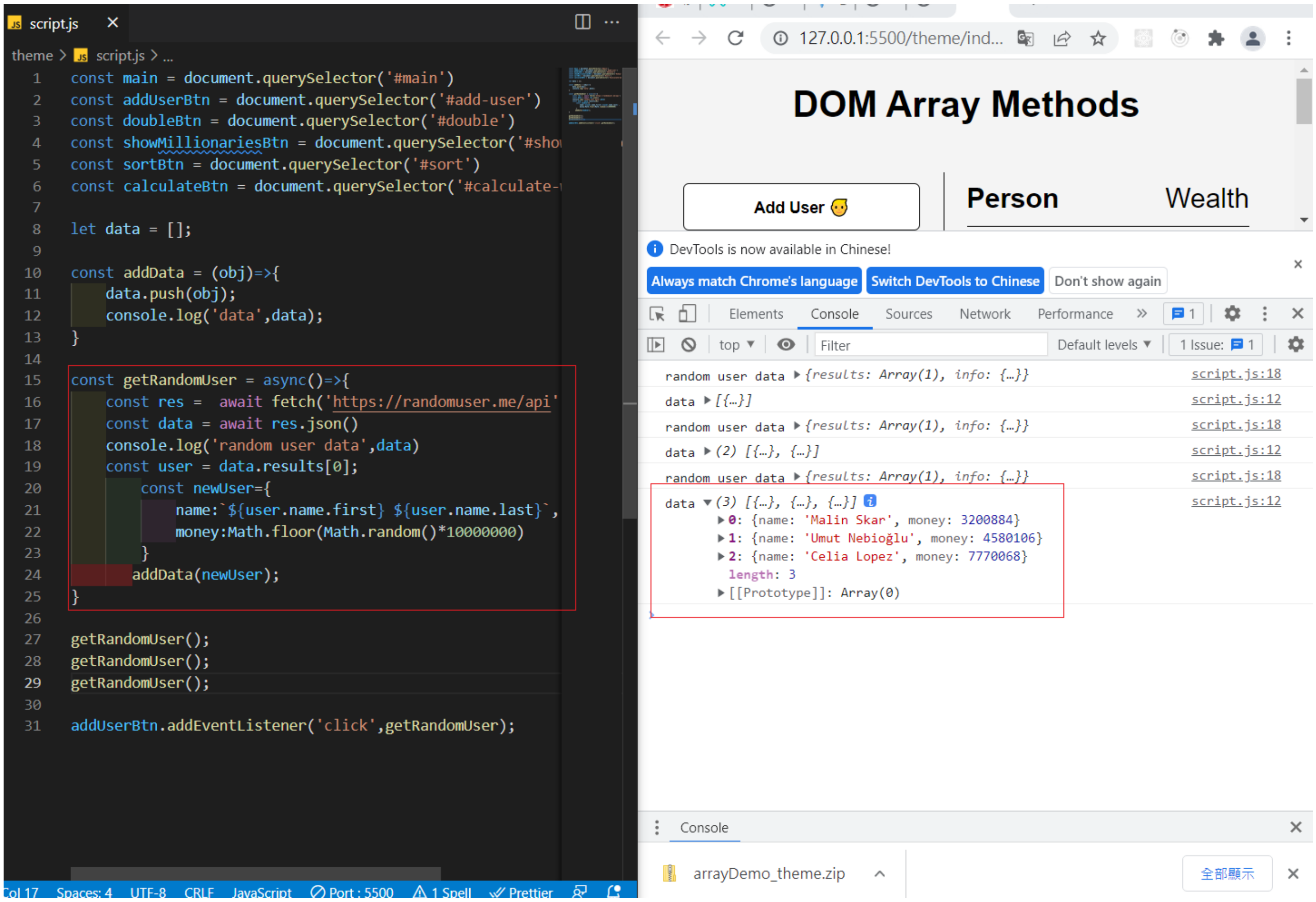
P1: fruits array demo using map,filter,find,reduce


File Edit Selection View Go Run Terminal Help
● app.js - theme - Visual Studio Code
index.html
app.js
data.js
app.js > ...
Ln 24, Col 41 Spaces: 4 UTF-8 CRLF JavaScript Port : 5500 Spell Prettier
127.0.0.1:5500/index.html
DOM Array Methods
Add User
Person
Wealth
Elements Console Sources Network Performance
top
Filter
Default levels
1 Issue: 1
Console
arrayDemo_theme.zip
全部顯示

```
const updateFruits = fruits.map( (fruit)=>{
    fruit.role = 'fruit'
    //console.log(fruit);
    return fruit;
})
console.log('updateFruits',updateFruits);
const highPrice = fruits.filter((fruit)=>{
    // if(fruit.price >20){
    //     return fruit;
    // }
    //if(fruit.price>20)return fruit;
    return fruit.price >20
})
console.log('highPrice ',highPrice)
const specificId = fruits.find((fruit)=>{
    return fruit.id ===1;
})
console.log('specificId',specificId)
const averagePrice = fruits.reduce((priceTotal,fruit)=>{
    // console.log('fruit',fruit)
    // console.log('priceTotal',priceTotal)
    return priceTotal + fruit.price;
},0)/fruits.length;
console.log('averagePrice',averagePrice)
const survey = fruits.reduce((survey,fruit)=>{
    // console.log('color',fruit.color)
    const color = fruit.color
    if (survey[color]){
        survey[color] =survey[color]+1
    }
    else{
        survey[color]=1;
    }
    return survey;
}, {});
console.log('survey',survey)
```

```
updateFruits                                                         app.js:8
▼(5) [{…}, {…}, {…}, {…}, {…}]
  ▶0: {id: 1, name: 'banana', price: 30, color: 'green', role: 'fruit'}
  ▶1: {id: 2, name: 'apple', price: 25, color: 'red', role: 'fruit'}
  ▶2: {id: 3, name: 'melon', price: 40, color: 'green', role: 'fruit'}
  ▶3: {id: 4, name: 'kiwi', price: 22, color: 'brown', role: 'fruit'}
  ▶4: {id: 5, name: 'orange', price: 15, color: 'orange', role: 'fruit'}
   length: 5
  ▶[[Prototype]]: Array(0)
highPrice                                                            app.js:22
▼(4) [{…}, {…}, {…}, {…}]
  ▶0: {id: 1, name: 'banana', price: 30, color: 'green', role: 'fruit'}
  ▶1: {id: 2, name: 'apple', price: 25, color: 'red', role: 'fruit'}
  ▶2: {id: 3, name: 'melon', price: 40, color: 'green', role: 'fruit'}
  ▶3: {id: 4, name: 'kiwi', price: 22, color: 'brown', role: 'fruit'}
   length: 4
  ▶[[Prototype]]: Array(0)
specificId                                                           app.js:31
▶{id: 1, name: 'banana', price: 30, color: 'green', role: 'fruit'}
averagePrice 26.4                                                    app.js:39
survey ▼{green: 2, red: 1, brown: 1, orange: 1}                      app.js:52
          brown: 1
          green: 2
          orange: 1
          red: 1
        ▶[[Prototype]]: Object
```

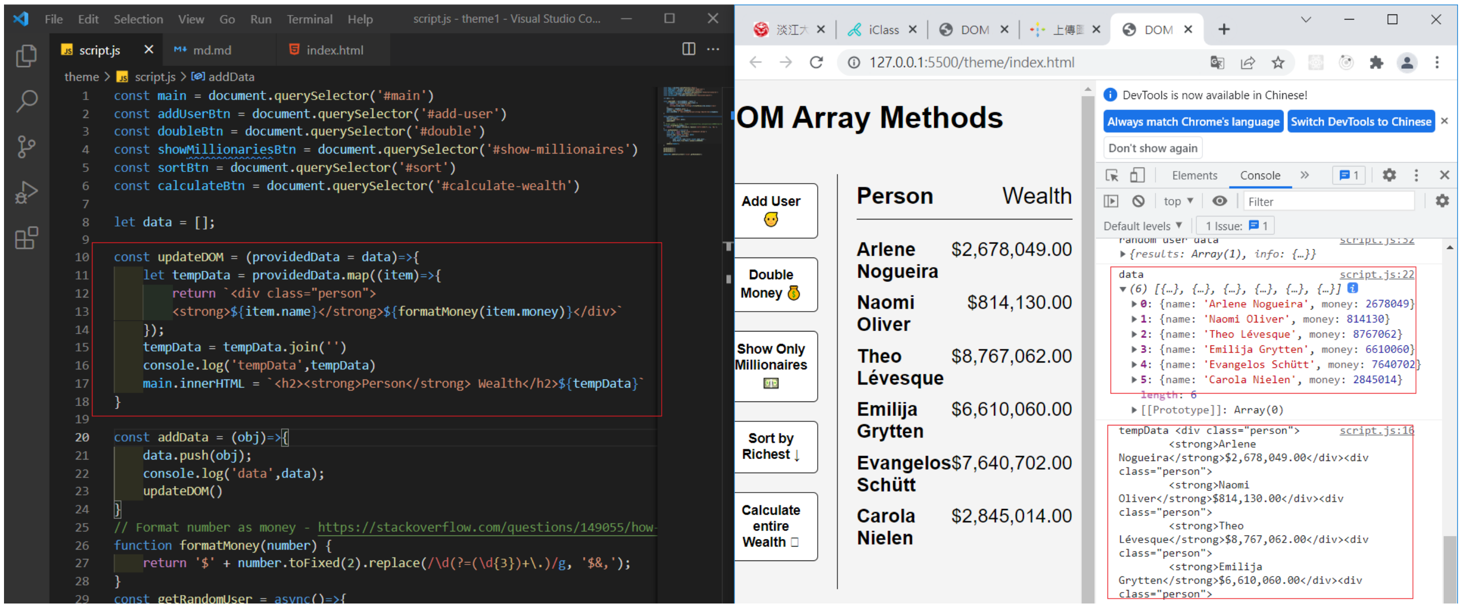
P2: get random User three times



```
const main = document.querySelector('#main')
const addUserBtn = document.querySelector('#add-user')
const doubleBtn = document.querySelector('#double')
const showMillionariesBtn = document.querySelector('#sho
const sortBtn = document.querySelector('#sort')
const calculateBtn = document.querySelector('#calculate-

let data = [];

const addData = (obj)=>{
    data.push(obj);
    console.log('data',data);
}

const getRandomUser = async()=>{
    const res =  await fetch('https://randomuser.me/api'
    const data = await res.json()
    console.log('random user data',data)
    const user = data.results[0];
        const newUser={
            name:`${user.name.first} ${user.name.last}`,
            money:Math.floor(Math.random()*10000000)
        }
       addData(newUser);
}

getRandomUser();
getRandomUser();
getRandomUser();

addUserBtn.addEventListener('click',getRandomUser);
```

```
random user data ▶{results: Array(1), info: {…}}          script.js:18
data ▶[{…}]                                               script.js:12
random user data ▶{results: Array(1), info: {…}}          script.js:18
data ▶(2) [{…}, {…}]                                      script.js:12
random user data ▶{results: Array(1), info: {…}}          script.js:18
data ▼(3) [{…}, {…}, {…}]                                 script.js:12
      ▶0: {name: 'Malin Skar', money: 3200884}
      ▶1: {name: 'Umut Nebioğlu', money: 4580106}
      ▶2: {name: 'Celia Lopez', money: 7770068}
       length: 3
      ▶[[Prototype]]: Array(0)
```

P3: add 6 users to the DOM

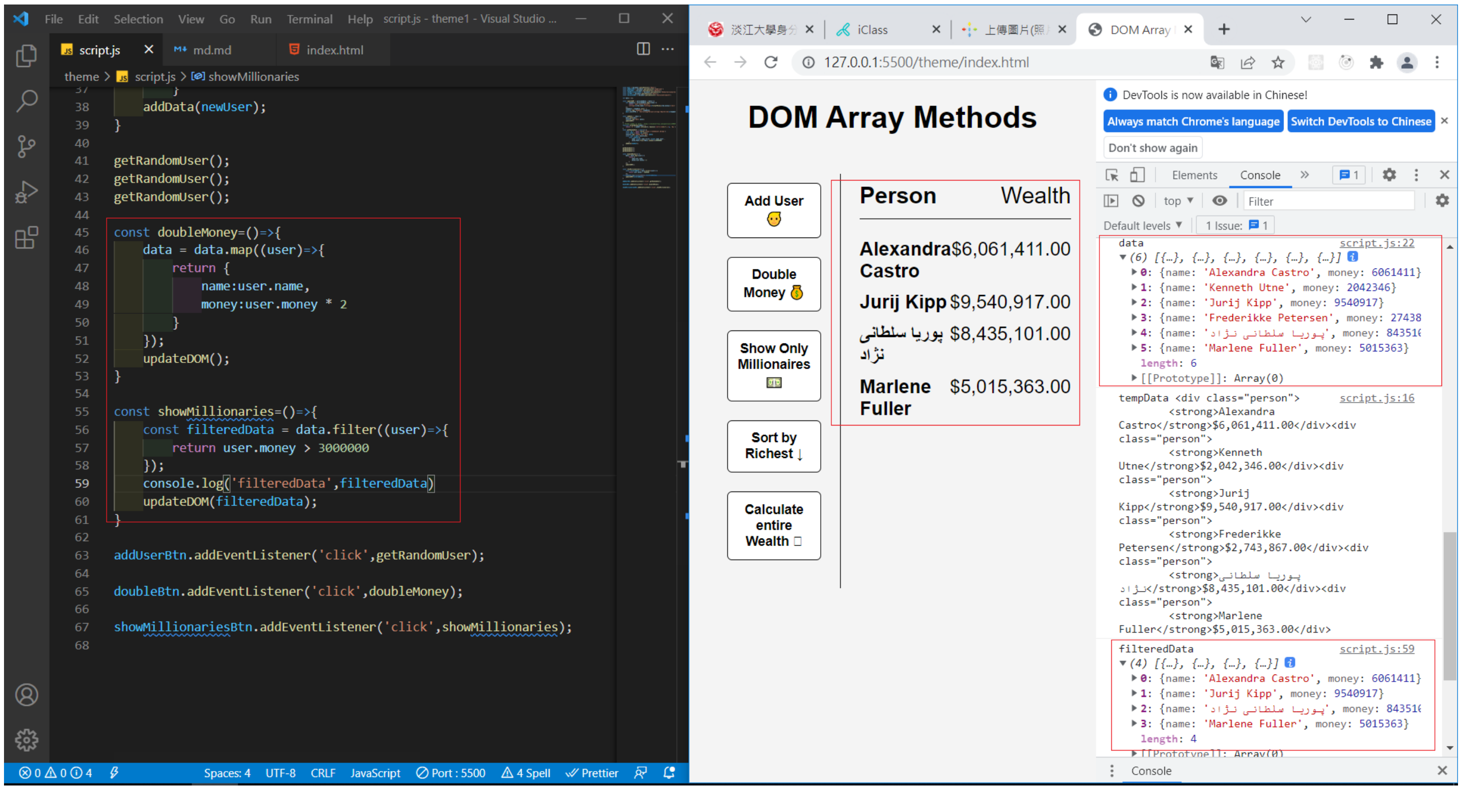


```
const main = document.querySelector('#main')
const addUserBtn = document.querySelector('#add-user')
const doubleBtn = document.querySelector('#double')
const showMillionariesBtn = document.querySelector('#show-millionaires')
const sortBtn = document.querySelector('#sort')
const calculateBtn = document.querySelector('#calculate-wealth')

let data = [];

const updateDOM = (providedData = data)=>{
    let tempData = providedData.map((item)=>{
        return `<div class="person">
        <strong>${item.name}</strong>${formatMoney(item.money)}</div>`
    });
    tempData = tempData.join('')
    console.log('tempData',tempData)
    main.innerHTML = `<h2><strong>Person</strong> Wealth</h2>${tempData}`
}

const addData = (obj)=>{
    data.push(obj);
    console.log('data',data);
    updateDOM()
}
// Format number as money - https://stackoverflow.com/questions/149055/how-
function formatMoney(number) {
    return '$' + number.toFixed(2).replace(/\d(?=(\d{3})+\.)/g, '$&,');
}
const getRandomUser = async()=>{
```

Person	Wealth
Arlene Nogueira	$2,678,049.00
Naomi Oliver	$814,130.00
Theo Lévesque	$8,767,062.00
Emilija Grytten	$6,610,060.00
Evangelos Schütt	$7,640,702.00
Carola Nielen	$2,845,014.00

```
 ▶{results: Array(1), info: {…}}
data                                                 script.js:22
 ▼(6) [{…}, {…}, {…}, {…}, {…}, {…}]
   ▶0: {name: 'Arlene Nogueira', money: 2678049}
   ▶1: {name: 'Naomi Oliver', money: 814130}
   ▶2: {name: 'Theo Lévesque', money: 8767062}
   ▶3: {name: 'Emilija Grytten', money: 6610060}
   ▶4: {name: 'Evangelos Schütt', money: 7640702}
   ▶5: {name: 'Carola Nielen', money: 2845014}
    length: 6
   ▶[[Prototype]]: Array(0)
tempData <div class="person">                        script.js:16
        <strong>Arlene
Nogueira</strong>$2,678,049.00</div><div
class="person">
        <strong>Naomi
Oliver</strong>$814,130.00</div><div
class="person">
        <strong>Theo
Lévesque</strong>$8,767,062.00</div><div
class="person">
        <strong>Emilija
Grytten</strong>$6,610,060.00</div><div
class="person">
```

P4: add 6 users first, then filter condition set to > 30000000



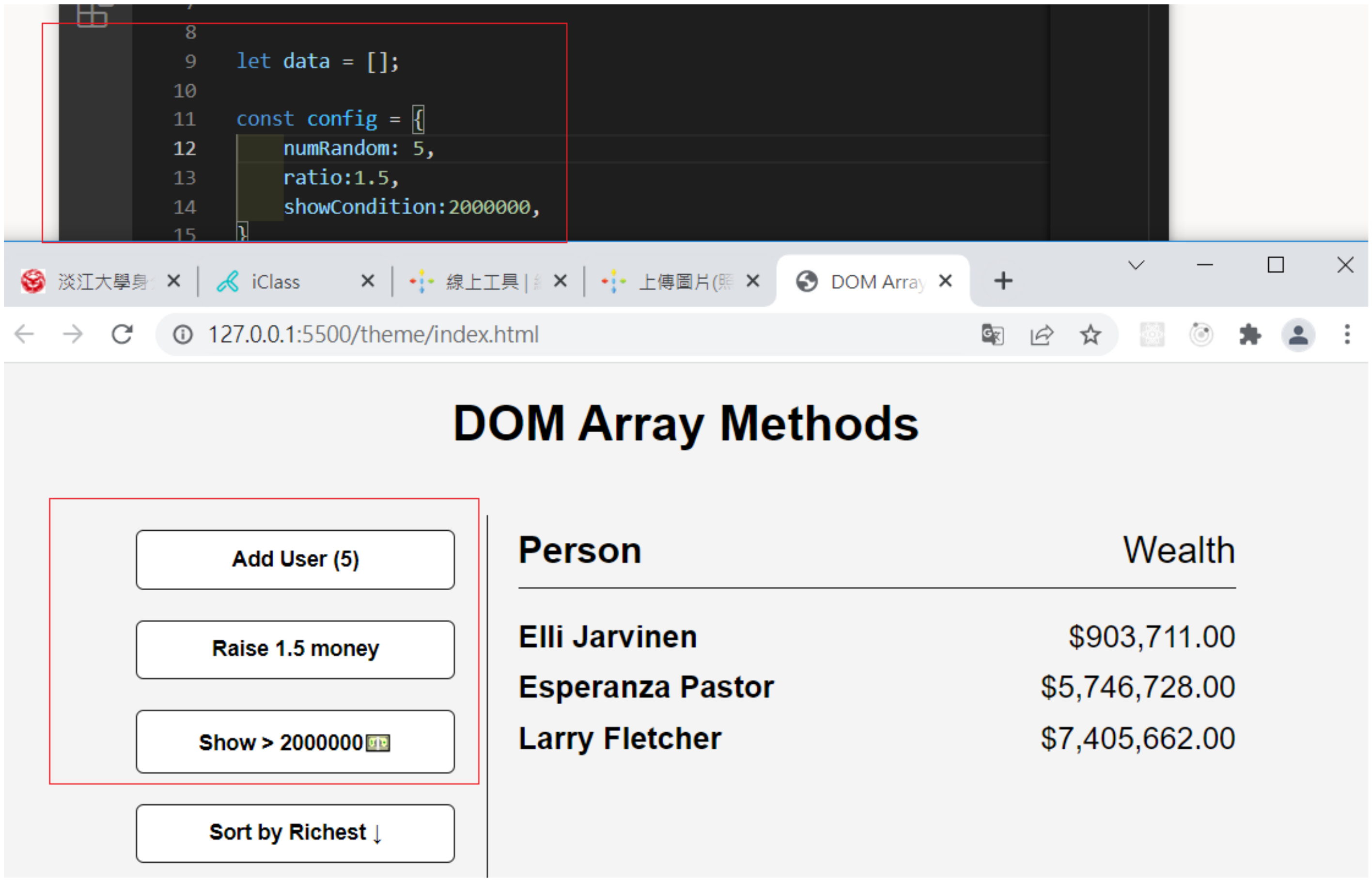
```
    }
    addData(newUser);
}

getRandomUser();
getRandomUser();
getRandomUser();

const doubleMoney=()=>{
    data = data.map((user)=>{
        return {
            name:user.name,
            money:user.money * 2
        }
    });
    updateDOM();
}

const showMillionaries=()=>{
    const filteredData = data.filter((user)=>{
        return user.money > 3000000
    });
    console.log('filteredData',filteredData)
    updateDOM(filteredData);
}

addUserBtn.addEventListener('click',getRandomUser);

doubleBtn.addEventListener('click',doubleMoney);

showMillionariesBtn.addEventListener('click',showMillionaries);
```

DOM Array Methods

Person	Wealth
Alexandra Castro	$6,061,411.00
Jurij Kipp	$9,540,917.00
پوریا سلطانی نژاد	$8,435,101.00
Marlene Fuller	$5,015,363.00

```
data                                                   script.js:22
▼(6) [{…}, {…}, {…}, {…}, {…}, {…}]
  ▶0: {name: 'Alexandra Castro', money: 6061411}
  ▶1: {name: 'Kenneth Utne', money: 2042346}
  ▶2: {name: 'Jurij Kipp', money: 9540917}
  ▶3: {name: 'Frederikke Petersen', money: 27438
  ▶4: {name: 'پوریا سلطانی نژاد', money: 843510
  ▶5: {name: 'Marlene Fuller', money: 5015363}
   length: 6
  ▶[[Prototype]]: Array(0)
tempData <div class="person">                          script.js:16
        <strong>Alexandra
Castro</strong>$6,061,411.00</div><div
class="person">
        <strong>Kenneth
Utne</strong>$2,042,346.00</div><div
class="person">
        <strong>Jurij
Kipp</strong>$9,540,917.00</div><div
class="person">
        <strong>Frederikke
Petersen</strong>$2,743,867.00</div><div
class="person">
        <strong>پوریا سلطانی
نژاد</strong>$8,435,101.00</div><div
class="person">
        <strong>Marlene
Fuller</strong>$5,015,363.00</div>
filteredData                                           script.js:59
▼(4) [{…}, {…}, {…}, {…}]
  ▶0: {name: 'Alexandra Castro', money: 6061411}
  ▶1: {name: 'Jurij Kipp', money: 9540917}
  ▶2: {name: 'پوریا سلطانی نژاد', money: 843510
  ▶3: {name: 'Marlene Fuller', money: 5015363}
   length: 4
  ▶[[Prototype]]: Array(0)
```

P5: use config for three buttons



```
let data = [];

const config = {
    numRandom: 5,
    ratio:1.5,
    showCondition:2000000,
}
```

DOM Array Methods

Person	Wealth
Elli Jarvinen	$903,711.00
Esperanza Pastor	$5,746,728.00
Larry Fletcher	$7,405,662.00

```javascript
const config = {
  numRandom: 5,
  ratio: 1.5,
  showCondition: 2000000,
};
```