TP JAVASCRIPT 1

Exercice 1 :

```
const str1 = 'Bonjour';
const str2 = 'Hello';

console.log(str1.concat(' ', str2));

console.log(str2.concat(', ', str1));
```

```
Bonjour Hello
Hello, Bonjour
>
```

Exercice 2 :

```
var number = 42;
var string = "Fox";
var boolean = true;

console.log(typeof number);
console.log(typeof string);
console.log(typeof boolean);
console.log(typeof undeclaredVariable);
```

```
number
string
boolean
undefined
```

Exercice 3 :

```
var longueur = 10;
var largeur = 5;

var aire = (longueur*largeur);
var perimetre = (longueur+largeur) * 2;

console.log("Aire du rectangle : " + aire);
console.log("Perimètre du rectangle : " + perimetre);
```

```
Aire du rectangle : 50
Perimètre du rectangle : 30
```

Exercice 4 :

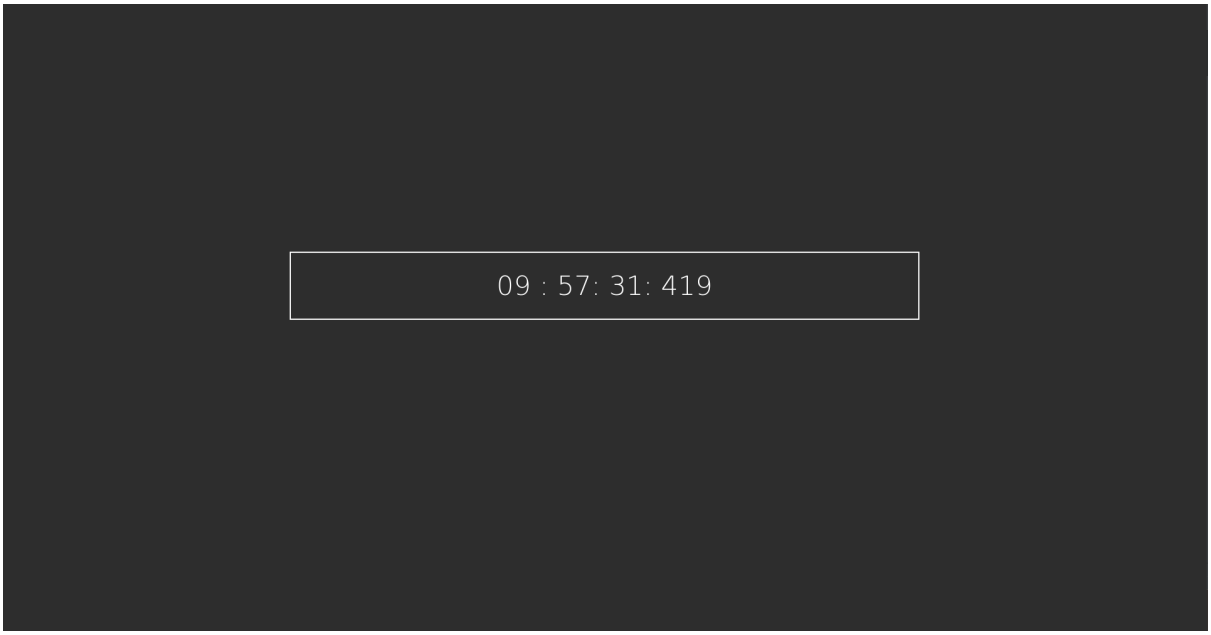
```
function factorialize(num) {
    if (num < 0)
        return -1;
    else if (num == 0)
        return 1;
    else {
        return (num * factorialize( num: num - 1));
    }
}
console.log(factorialize( num: 15));
```

```
1307674368000
```

Exercice 5 :

```
Number.prototype.pad = function(n) {
    for (var r = this.toString(); r.length < n; r = 0 + r);
    return r;
};

function updateClock() {
    var now = new Date();
    var milli = now.getMilliseconds(),
        sec = now.getSeconds(),
        min = now.getMinutes(),
        hou = now.getHours();
    var tags = ["h", "m", "s", "mi"],
        corr = [hou.pad( n: 2), min.pad( n: 2), sec.pad( n: 2), milli];
    for (var i = 0; i < tags.length; i++)
        document.getElementById(tags[i]).firstChild.nodeValue = corr[i];
}

function initClock() {
    updateClock();
    window.setInterval( handler: "updateClock()",  timeout: 1);
}
```

```html
<!DOCTYPE html>
<html lang="fr">
<head>
    <meta charset="UTF-8">
    <title>JS 1 - Exo 5</title>
    <link href="styles.css" rel="stylesheet">
</head>
<body onload="initClock()">
<div id="timedate">
    <a id="h">12</a> :
    <a id="m">00</a>:
    <a id="s">00</a>:
    <a id="mi">000</a>
</div>

<script src="exo5.js" type="text/javascript"></script>
</body>
</html>
```



Exercice 6 :

```js
let square = document.getElementById( elementId: 'squareID');

window.addEventListener( type: 'load',  listener: () =>{
    square.style.position = 'absolute';
    square.style.right = 0;
});

var myVar = setInterval(moove,  timeout: 2);

function moove() {
    if (square.style.right == (1920-250)+'px'){
        return;
    }
    square.style.right = parseInt(square.style.right) + 1 + 'px';
}
```

Exercice 7 :

```html
<!DOCTYPE html>
<html lang="fr">
<head>
    <meta charset="UTF-8">
    <title>JS 1 - Exo 7</title>
    <link href="styles.css" rel="stylesheet">
</head>
<body>
<div id="name"><h1>Chronometer</h1></div>
    <div id="clock">00.00</div>
    <br>
    <button id="start">Start / Stop</button>
    <button id="reset">Reset</button>
    <button id="record">Save Time</button>
    <br>
    <div><h3>Past Times :</h3></div>
        <div id="temps"></div>

<script src="exo7.js" type="text/javascript"></script>
</body>
</html>
```

```
var interval;
var started=false;
var time=0.00;
var clock=document.getElementById( elementId: "clock");
var count = 0;

document.getElementById( elementId: "start").addEventListener( type: "click", listener: function(){
    if(started==false){
        startTimer();
    }  else{
        stopTimer();
    }

});

document.getElementById( elementId: "reset").addEventListener( type: "click", listener: function(){
    resetTimer();
});

document.getElementById( elementId: "record").addEventListener( type: "click", listener: function(){
    recordTime();
});


function refreshClock(temps){
    clock.innerHTML=temps;
}
```

```
function startTimer(){
    interval=setInterval( handler: function(){
        time=time+0.01;
        var tempss = parseFloat(time).toFixed( fractionDigits: 2 );
        refreshClock(tempss);
    }, timeout: 10);
    started=true;

}

function stopTimer(){
    clearInterval(interval);
    started=false;
}

function resetTimer(){
    time=0.00;
    refreshClock(time);
    var temps=document.getElementById( elementId: "clock");
    temps.innerHTML="00.00";
}

function recordTime(){
    count++;
    if (count >= 4) {
        document.getElementById( elementId: 'temps').removeChild(document.getElementById( elementId: 'temps').getElementsByTagName( qualifiedName: 'p')[0]);
    }

    var timeSaved = parseFloat(time).toFixed( fractionDigits: 2);
    var temps = document.getElementById( elementId: "temps");
    temps.innerHTML = temps.innerHTML + "<p>" + timeSaved + "</p>";
}
```

Exercice 8 & 9 :
Pour la 9, j'ai fait un exemple avec la 8 directement. Cela revient à la même chose pour les autres.

```
function calcule() {
    var startTime = performance.now()
    var num = document.getElementById( elementId: "num").value;
    var res = factorialize(num);

    var element =  document.getElementById( elementId: 'res');
    if (typeof(element) != 'undefined' && element != null)
    {
        element.remove();
    }

    var divR = document.getElementById( elementId: 'result');
    var newR = document.createElement( tagName: "p");
    newR.id = 'res';
    divR.append(newR);
    newR.innerHTML += res;

    var endTime = performance.now()

    var element =  document.getElementById( elementId: 'ti');
    if (typeof(element) != 'undefined' && element != null)
    {
        element.remove();
    }

    var ti = endTime - startTime;
    var divR = document.getElementById( elementId: 'time');
    var newR = document.createElement( tagName: "p");
    newR.id = 'ti';
    divR.append(newR);
    newR.innerHTML += ti*1000 + " millisecondes";
}
function factorialize(num) {
    if (num < 0)
        return -1;
    else if (num == 0)
        return 1;
    else {
        return (num * factorialize( num: num - 1));
    }
}
```

```html
<!DOCTYPE html>
<html lang="fr">
<head>
    <meta charset="UTF-8">
    <title>JS 1 - Exo 8</title>
    <link href="styles.css" rel="stylesheet">
</head>
<body>
<input type="number" required="" id="num">
<br>
<button onclick="calcule()">Calculer</button>
<div id="result">
<p>Résultat :</p>
</div>
<div id="time">
    <p>Temps d'exécution : </p>
</div>
<script src="exo8.js" type="text/javascript"></script>
</body>
</html>
```

Exercice 10 :

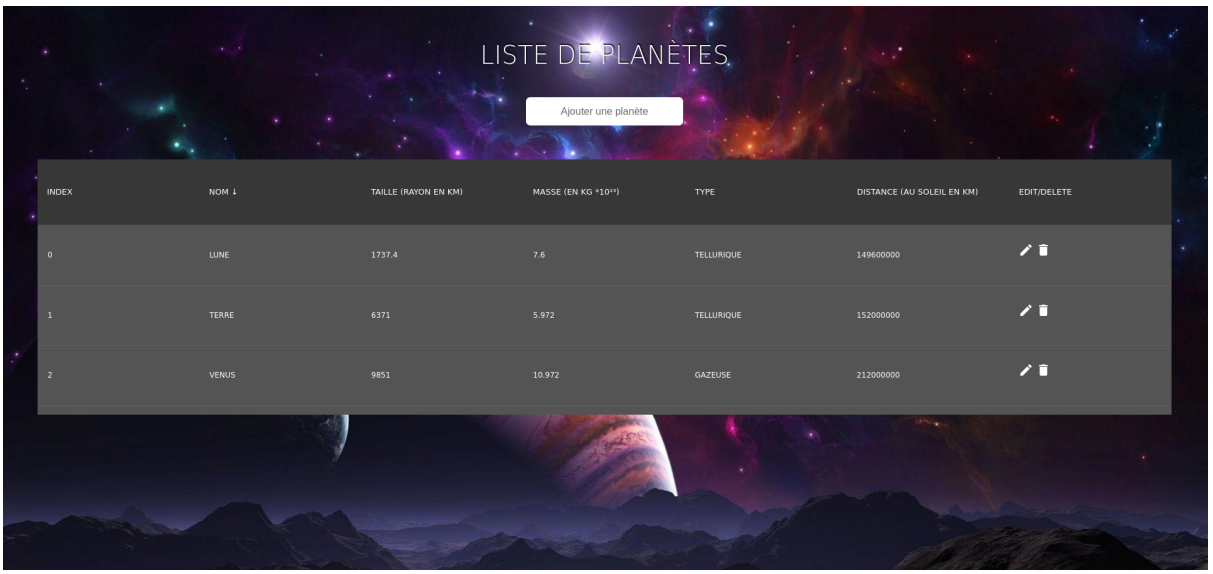
```html
<!DOCTYPE html>
<html lang="fr">
<head>
    <meta charset="UTF-8">
    <title>JS 1 - Exo 10</title>
    <link href="styles.css" rel="stylesheet">
    <link href="https://fonts.googleapis.com/icon?family=Material+Icons"
          rel="stylesheet">
</head>
<body class="bg">
<section>
    <!--for demo wrap-->
    <h1>Liste de planètes</h1>
    <button onclick="add()" style="margin-bottom: 3%;">Ajouter une planète</button>
    <div class="tbl-header">
        <table cellpadding="0" cellspacing="0" border="0">
            <thead>
            <tr>
                <th>Index</th>
                <th id="nom" class="cursor" onclick="triN(this)">Nom ↓</th>
                <th id="taille" class="cursor" onclick="triTa(this)">Taille (rayon en km)</th>
                <th id="masse" class="cursor" onclick="triM(this)">Masse (en kg *10²³)</th>
                <th id="type" class="cursor" onclick="triTy(this)">Type</th>
                <th id="distance" class="cursor" onclick="triD(this)">Distance (au soleil en km)</th>
                <th>Edit/Delete</th>
            </tr>
            </thead>
        </table>
    </div>
    <div class="tbl-content">
        <table cellpadding="0" cellspacing="0" border="0">
            <tbody id="tbody">
            </tbody>
        </table>
    </div>
</section>

<script src="exo10.js" type="text/javascript"></script>
</body>
</html>
```

```
var planet = [
    ["Terre", 6371, 5.972, "Tellurique", 152000000],
    ["Venus", 9851, 10.972, "Gazeuse", 212000000],
    ["Lune", 1737.4, 7.6, "Tellurique", 149600000]
];
function removeAll() {
    var tbodyP = document.getElementById( elementId: 'tbody');
    tbodyP.innerHTML ="";
}

function affichage() {
    for (var x = 0; x < planet.length; x++) {
        var tbodyP = document.getElementById( elementId: 'tbody');
        var newTr = document.createElement( tagName: 'tr');
        tbodyP.append(newTr);
        var td = document.createElement( tagName: 'td');
        newTr.append(td);
        td.innerHTML += x;
        for (var i = 0; i < planet[x].length; i++) {
            var td = document.createElement( tagName: 'td');
            newTr.append(td);
            td.innerHTML += planet[x][i];
        }
        var td = document.createElement( tagName: 'td');
        newTr.append(td);
        td.innerHTML += "<i class=\"material-icons edit\" onclick=\"edit(this)\">&#xe254;</i>\n" + "<i class=\"material-icons delete\" onclick=\"del(this)\">&#xe872;<
    }
}

planet.sort(compareFirstColumnDown);

affichage();

function compareFirstColumnDown(a, b) {
    if (a[0] === b[0]) {
        return 0;
    }
    else {
        return (a[0] < b[0]) ? -1 : 1;
    }
}
edit()
```

```
function compareFirstColumnUp(a, b) {...}
function compareSecondColumnDown(a, b) {...}
function compareSecondColumnUp(a, b) {...}
function compareThirdColumnDown(a, b) {...}
function compareThirdColumnUp(a, b) {...}
function compareFourthColumnDown(a, b) {...}
function compareFourthColumnUp(a, b) {...}
function compareFifthColumnDown(a, b) {...}
function compareFifthColumnUp(a, b) {...}

function triN(why) {
    if (why.innerHTML == "Nom ↓") {
        why.innerHTML = "Nom ↑";
        planet.sort(compareFirstColumnUp);
        removeAll();
        affichage();
    } else {
        why.innerHTML = "Nom ↓";
        document.getElementById( elementId: 'taille').innerHTML = "Taille (rayon en km)";
        document.getElementById( elementId: 'masse').innerHTML = "Masse (en kg *10^23)";
        document.getElementById( elementId: 'type').innerHTML = "Type";
        document.getElementById( elementId: 'distance').innerHTML = "Distance (au soleil en km)";
        planet.sort(compareFirstColumnDown);
        removeAll();
        affichage();
    }
}
function triTa(why) {...}
function triM(why) {...}
function triTy(why) {...}
function triD(why) {...}
```

```
function del(buttonDel) {
    var parentI = buttonDel.parentElement;
    var parentTd = parentI.parentElement;

    var index = parseInt(parentTd.children[0].innerHTML);

    planet.splice(index, deleteCount: 1);

    var nom = document.getElementById( elementId: 'nom');
    nom.innerHTML = "Nom ↓";
    document.getElementById( elementId: 'taille').innerHTML = "Taille (rayon en km)";
    document.getElementById( elementId: 'masse').innerHTML = "Masse (en kg *10²³)";
    document.getElementById( elementId: 'type').innerHTML = "Type";
    document.getElementById( elementId: 'distance').innerHTML = "Distance (au soleil en km)";
    planet.sort(compareFirstColumnDown);
    removeAll();
    affichage();
}
function edit(buttonEdit) {
    var parentI = buttonEdit.parentElement;
    var parentTd = parentI.parentElement;

    var index = parseInt(parentTd.children[0].innerHTML);

    let txt1 = prompt( message: "Nom :", _default: "");
    planet[index][0] = txt1;
    let txt2 = prompt( message: "Taille (rayon en km) :", _default: "");
    planet[index][1] = txt2;
    let txt3 = prompt( message: "Masse (en kg) :", _default: "");
    planet[index][2] = txt3;
    let txt4 = prompt( message: "Type :", _default: "");
    planet[index][3] = txt4;
    let txt5 = prompt( message: "Distance (au soleil en km) :", _default: "");
    planet[index][4] = txt5;

    var nom = document.getElementById( elementId: 'nom');
    nom.innerHTML = "Nom ↓";
    document.getElementById( elementId: 'taille').innerHTML = "Taille (rayon en km)";
    document.getElementById( elementId: 'masse').innerHTML = "Masse (en kg *10²³)";
    document.getElementById( elementId: 'type').innerHTML = "Type";
    document.getElementById( elementId: 'distance').innerHTML = "Distance (au soleil en km)";
    planet.sort(compareFirstColumnDown);
    removeAll();
    affichage();
}
```

```
function add() {
    var addP = [];

    let txt1 = prompt( message: "Nom :",  _default: "");
    addP.push(txt1);
    let txt2 = prompt( message: "Taille (rayon en km) :",  _default: "");
    addP.push(txt2);
    let txt3 = prompt( message: "Masse (en kg) :",  _default: "");
    addP.push(txt3);
    let txt4 = prompt( message: "Type :",  _default: "");
    addP.push(txt4);
    let txt5 = prompt( message: "Distance (au soleil en km) :",  _default: "");
    addP.push(txt5);

    planet.push(addP);

    var nom = document.getElementById( elementId: 'nom');
    nom.innerHTML = "Nom ↓";
    document.getElementById( elementId: 'taille').innerHTML = "Taille (rayon en km)";
    document.getElementById( elementId: 'masse').innerHTML = "Masse (en kg *10²³)";
    document.getElementById( elementId: 'type').innerHTML = "Type";
    document.getElementById( elementId: 'distance').innerHTML = "Distance (au soleil en km)";
    planet.sort(compareFirstColumnDown);
    removeAll();
    affichage();
}
```



Le fichier contenant les exercices étant mis à votre disposition, je vous laisse essayer de vous même car sinon cela ferait trop de screenshots.

Exercice 11 :

```html
<!DOCTYPE html>
<html lang="fr">
<head>
    <meta charset="UTF-8">
    <title>JS 1 - Exo 10</title>
    <link href="styles2.css" rel="stylesheet">
    <link href="https://fonts.googleapis.com/icon?family=Material+Icons"
        rel="stylesheet">
</head>
<body>
<div class="slideshow-container">
    <div class="mySlides fade">
        <img src="http://upliftingbooks.com.au/wp-content/uploads/2014/02/Planet-Earth-1080x350.jpg" style="width:100%">
    </div>
    <div class="mySlides fade">
        <img src="https://cherry.img.pmdstatic.net/fit/https.3A.2F.2Fimg.2Emaxisciences.2Ecom.2Fs3.2Ffrgsd.2Fastronomie.2Fdefault_2021-06-03_0d498441-f755-4a23-8b6b-4a90aa6b707c.2Ejpeg/480x270/quality/80/venus.jpg" style="width:100%">
    </div>
    <div class="mySlides fade">
        <img src="https://starwalk.space/gallery/images/saturn-planet-guide/1920x1080.jpg" style="width:100%">
    </div>
    <a class="prev" onclick="plusSlides(-1)">❮</a>
    <a class="next" onclick="plusSlides(1)">❯</a>
</div>
<br>
<div style="text-align:center">
    <span class="dot" onclick="currentSlide(1)"></span>
    <span class="dot" onclick="currentSlide(2)"></span>
    <span class="dot" onclick="currentSlide(3)"></span>
</div>
<script src="exo11.js" type="text/javascript"></script>
</body>
</html>
```

```javascript
let slideIndex = 1;
showSlides(slideIndex);

function plusSlides(n) {
    showSlides( n: slideIndex += n);
}

function currentSlide(n) {
    showSlides( n: slideIndex = n);
}

function showSlides(n) {
    let i;
    let slides = document.getElementsByClassName( classNames: "mySlides");
    let dots = document.getElementsByClassName( classNames: "dot");
    if (n > slides.length) {slideIndex = 1}
    if (n < 1) {slideIndex = slides.length}
    for (i = 0; i < slides.length; i++) {
        slides[i].style.display = "none";
    }
    for (i = 0; i < dots.length; i++) {
        dots[i].className = dots[i].className.replace( searchValue: " active", replaceValue: "");
    }
    slides[slideIndex-1].style.display = "block";
    dots[slideIndex-1].className += " active";
}
```