

HW2

دوره مکتب ۳۴ (فرانت)

مصطفی جمالی

(۱) تبدیل درجه سلیسیوس به فارنهایت:

```
let T = prompt("input a Celsius degree temperature:" , "");  
alert(`The Farenheit temperature is: ${T*(9/5)+32}`);
```

```
> let T = prompt("input a Celsius degree temperature:" , "");  
    console.log(`The Farenheit temperature is: ${T*(9/5)+32}`);
```

(۲) تبدیل اینچ به متر:

```
let a = prompt("input a inches number:" , "");  
alert(`The meteric number is: ${((2.54*a)/100)}`);
```

```
> let a = prompt("input a inches number:" , "");  
    alert(`The meteric number is: ${((2.54*a)/100)}`);
```

(۳) تبدیل میلی ثانیه به ثانیه، دقیقه، ساعت، روز، ماه و ...:

```
function convertMS( milliseconds ) {  
    var year, month, day, hour, minute, seconds , millisecond;  
  
    millisecond = Math.floor(millisecond / 1000);  
    seconds = seconds % 1000;  
    seconds = Math.floor(milliseconds / 1000);  
    millisecond = milliseconds % 1000;  
    minute = Math.floor(seconds / 60);  
    seconds = seconds % 60;  
    hour = Math.floor(minute / 60);
```

```

minute = minute % 60;
day = Math.floor(hour / 24);
hour = hour % 24;
month = Math.floor(day / 30);
day = day % 30;
year = Math.floor(month / 12);
month = month % 12;
return (
    year+" year "+month+" month "+day+" day "+hour+" hour "+minute+" minute "+seconds+"
seconds "+millisecond+" millisecond"
);
}
console.log(convertMS());

```

```

> function convertMS( milliseconds ) {
    var year, month, day, hour, minute, seconds , millisecond;

    millisecond = Math.floor(millisecond / 1000);
    seconds = seconds % 1000;
    seconds = Math.floor(milliseconds / 1000);
    millisecond = milliseconds % 1000;
    minute = Math.floor(seconds / 60);
    seconds = seconds % 60;
    hour = Math.floor(minute / 60);
    minute = minute % 60;
    day = Math.floor(hour / 24);
    hour = hour % 24;
    month = Math.floor(day / 30);
    day = day % 30;
    year = Math.floor(month / 12);
    month = month % 12;
    return (
        year+" year "+month+" month "+day+" day "+hour+" hour "+minute+" minute "+seconds+" seconds "+millisecond+"
millisecond"
    );
}
console.log(convertMS());

```

(٤) محاسبه شاخص BMI:

```
let weight = prompt("input weight (in kg):" , "");
```

```
let height = prompt("input height(in m):" , "");
```

```
let BMI = weight/(height*height)
```

```
alert(`The BMI is: ${BMI.toFixed(1)}`);
```

```
> let weight = prompt("input weight (in kg):" , "");  
    let height = prompt("input height(in m):" , "");  
    let BMI = weight/(height*height)  
    alert(`The BMI is: ${BMI.toFixed(1)}`);
```

(۵) سورت (مرتب) کردن ۱۵ عدد گرفته شده از ورودی:

```
let Array=[];
```

```
for (let i=0 ; i<15 ; i++){
```

```
var num= prompt("input a number","");
```

```
Array.push(num);
```

```
}
```

```
alert(Array.sort());
```

```
> let Array=[];  
    for (let i=0 ; i<15 ; i++){  
        var num= prompt("input a number","");  
        Array.push(num);  
    }  
  
    alert(Array.sort());
```

(۶) ساخت الماسی از ستاره‌ها:

```
function diamond(arg) {
```

```
    if(arg === 1) {return "*"}
```

```
    var str = ""
```

```
    for(var i = 1 ; i <= arg+1; i++) {
```

```

    str += Array(i).join('*') + '\n'

}

for(var j = arg ; j > 1; j--) {

    str += Array(j).join('*') + '\n'

}

return str

}

alert(diamond(7))

> function diamond(arg) {
    if(arg === 1) {return "*" }
    var str = ""
    for(var i = 1 ; i <= arg+1; i++) {
        str += Array(i).join('*') + '\n'
    }
    for(var j = arg ; j > 1; j--) {
        str += Array(j).join('*') + '\n'
    }
    return str
}
alert(diamond(7))

```

۷) جمع مقادیر یک آرایه:

```

let arr = [1, 2, 3, 4, 5];

let result = arr.reduce((sum, current) => sum + current);

alert( result );

```

```

> let arr = [1, 2, 3, 4, 5];
    let result = arr.reduce((sum, current) => sum + current);
    alert( result );

```

۸) کدگذاری سزار:

```
function caesarEncrypt (string) {
    let res = '';
    for (let index = 0; index < string.length; index++) {
        res += String.fromCharCode(string[index].codePointAt(0) + 3);
    }
    return res;
}

console.log(caesarEncrypt("Hello"))
```

۹) کشف (decode) کد مربوط به کدگذاری سزار:

```
function caesarDecrypt (string) {
    let res = '';
    for (let index = 0; index < string.length; index++) {
        res += String.fromCharCode(string[index].codePointAt(0) - 3);
    }

    return res;
}

console.log(caesarDecrypt("Khoor"))
```

۱۰) تبدیل عدد به حروف:

```
function numberToText (number,order=0) {
    const yekan = ["", "یک", "دو", "سه", "چهار", "پنج", "شش", "هفت", "هشت", "نه"];
    const dahgan = ["", "ده", "بیست", "سی", "چهل", "پنجاه", "شصت", "هفتاد", "هشتاد", "نود"];
    const sadgan = ["", "صد", "دویست", "سیصد", "چهارصد", "پانصد", "ششصد", "هفتصد", "هشتصد", "نoveصد"];
    const teens = ["ده", "یازده", "دوازده", "سیزده", "چهارده", "پانزده", "شانزده", "هفده", "هجده", "دهده"];
    const orderText = ["", "هزار", "میلیون", "میلیارد", "میلیارد هزار", "میلیارد هزار", "میلیارد هزار"];
    let res = "";
    let resultArray ;
    if(number>1000){
        res = numberToText(Math.floor(number / 1000), order + 1);
    }
    let stringNumber = "00" + String(number);
    stringNumber = stringNumber.substr(stringNumber.length - 3);
```

```
    if (stringNumber[1] === "1") {
        resultArray = [sadgan[stringNumber[0]] , teens[stringNumber[2]]]
    } else {
        resultArray = [sadgan[stringNumber[0]] , dahgan[stringNumber[1]] , yekan[stringNumber[2]]]
    }
    return (res && res + " و") + resultArray.filter(item=>{
        return item
    }).join(" و") + " " +orderText[order]
}

console.log(numberToText(2355451101))
```