

## Module 22-More JS Coding Problems

### 22-1 Introduction and increase problem solving ability

```
// largest element
function largetElement(number)
{
    let max=number[0];
    for(var i=1;i<number.length;i++)
    {
        if(max<number[i])
        {
            max=number[i];
        }
    }
    return max;
}

console.log(largetElement([12,14,565,672,256]));

// smallest element
function smallElement(number)
{
    let min = number[0];
    for (var i = 1; i < number.length; i++) {
        if (min > number[i]) {
            min = number[i];
        }
    }
    return min;
}
console.log(smallElement([12, 14, 565, 672, 256,5]));
```

### 22-2 Remove duplicate items from an array

```
var num=[12,14,12,14,15,16,17,16,17,18,19,18,20,20];

function duplicat(number)
{
    var unique=[];
    for(element of number)
    {
```

```

        if(unique.indexOf(element)==-1)
        {
            unique.push(element);
        }
    }
    return unique;
}
console.log(duplicat(num));

```

### 22-3 Explore string nature and reverse a string

```

var name="My name is Md.Hamid Hosen";

function reverseString(text)
{
    let reverse="";
    for( letter of text)
    {
        reverse=letter+reverse;
    }
    return reverse;
}
console.log(reverseString(name));

```

### 22-4 Handle unexpected function input parameter error

```

var num1=10,num2=20,num3=30;

function add(num1,num2)
{
    return (num1+num2);
}
console.log(add(num1,num2));

function sub(num1, num2)
{
    return num1 - num2;
}
console.log(sub(num1, num2));

```

### 22-5 Use add and multiplication to calculate wood requirements

```

/*
chairWood=3cft/chair
tableWood=10cft/table
bedWood=50cft/bed
*/
function woodCalculetor(chairQuantity,tableQuantity,bedQuantity)
{
    const perChairWood=3;
    const perTableWood=10;
    const perBedWood=50;

    const chairWoodQuantity=chairQuantity*perChairWood;
    const tableWoodQuantity=tableQuantity*perTableWood;
    const bedWoodQuantity=bedQuantity*perBedWood;

    const total = chairWoodQuantity + tableWoodQuantity +
bedWoodQuantity;

    return total;
}

console.log(woodCalculetor(2,4,5));
console.log(woodCalculetor(20,8,9));

```

22-6 Write foo, bar, foobar if divisible by 3 or 5 or both

```

for(let i=0;i<=50;i++)
{
    if(i%3==0 && i%5==0)
    {
        console.log("Foobar");
    }
    else if(i%3==0)
    {
        console.log("Foo");
    }
    else if(i%5==0)
    {
        console.log("Bar");
    }
    else
    {
        console.log(i);
    }
}

```

```
}
```

## 22-7 Find the cheapest phone from an array of phone objects

```
const phone=[
  {name:"sumsung s5",price:3400,camra:10,storage:32},
  {name:"walton m32",price:4000,camra:90,storage:20},
  {name:"walton m32",price:5000,camra:30,storage:30},
  {name:"oppo m32",price:6000,camra:40,storage:40},
  {name:"nokia m32",price:3000,camra:50,storage:50},
  {name:"htc m32",price:8000,camra:60,storage:60},
];

let cheapest=phone[0];
for(let phones of phone)
{
  // compare price only
  if(phones.price<cheapest.price)
  {
    cheapest=phones;
  }
}
console.log(cheapest);
```

## 22-8 Calculate the total cost of the products in a shopping cart

```
const phone = [
  { name: "sumsung s5", price: 3400, camra: 10, storage: 32, quantaty:
1 },
  { name: "walton m32", price: 4000, camra: 90, storage: 20, quantaty:
2 },
  { name: "walton m32", price: 5000, camra: 30, storage: 30, quantaty:
1 },
  { name: "oppo m32", price: 6000, camra: 40, storage: 40, quantaty: 3
},
  { name: "nokia m32", price: 3000, camra: 50, storage: 50, quantaty:
2 },
  { name: "htc m32", price: 8000, camra: 60, storage: 60, quantaty:
1 },
];

let totalPrice=0;
for(let prices of phone)
```

```
{
    totalPrice=totalPrice+prices.price*prices.quantaty;
}
console.log(totalPrice);
```

## 22-9 Traveling in a Jungle and counting wild animals

```
function animalCount(miles)
{
    const animalFirstDensity=10;
    const animalSecondDensity=50;
    const animalThirdDensity=100;

    if(miles<=10)
    {
        const count = miles * animalFirstDensity;
        return count;
    }
    else if(miles<=20)
    {
        const first10 = 10 * animalFirstDensity;
        const restMiles=miles-10;
        const second10=restMiles*animalSecondDensity;
        const totalanimals=first10+second10;

        return totalanimals;
    }else
    {
        const first10 = 10 * animalFirstDensity;
        const second10 = 10 * animalSecondDensity;
        const restMiles = miles - 20;
        const restDenseAnimals=restMiles*animalThirdDensity;
        const totalAnimals=first10+second10+restDenseAnimals;

        return totalAnimals;
    }
}

console.log(animalCount(35));
```

## 22-10 Module Summary and important of problem solving