

## Module 23.5-Basic JavaScript Bonus Module

### 23\_5-1 Understand for loop in a forward and reverse way

```
// for(let i=1;i<6;i++)
// {
//     console.log(i);
// }

function consoleNumber(i)
{
    if(i>5)
    {
        return;
    }
    console.log(i);
    consoleNumber(i+1);
}

consoleNumber(1);
```

### 23\_5-2 Understand recursion using sum of numbers

```
// let sum=0;
// for(let i=5;i>=1;i--)
// {
//     sum=sum+i;
// }

// console.log(sum);

function sum(i)
{
    console.log(i);
    if(i==1)
    {
        return 1;
    }
    return i+sum(--i);
}

console.log(sum(5));
```

```
// i+sum(--i);
// 5+sum(4)
// 5+4+sum(3)
// 5+4+3+sum(2)
// 5+4+3+2+1
```

### 23\_5-3 Explore Factorial Recursion using a for loop concept

```
// // 4!=4*3*2*1
// let factorial=1;

// for(let i=4;i>=1;i--)
// {
//     factorial=factorial*i;
// }
// console.log(factorial);
```

```
function factorial(i)
{
    if(i==1)
    {
        return 1;
    }
    return i*factorial(--i);
}
```

```
console.log(factorial(4));
```

```
// i*factorial(--i)
// 4*factorial(3)
// 4*3*factorial(2)
// 4*3*2*factorial(1)
// 4*3*2*1
```

### 23\_5-4 (advanced) Find the matching product by searching products

```
const product = [
    { name: "iphone 14", price: 40000 },
    { name: "iphone 15", price: 50000 },
```

```

    { name: "iphone 16", price: 60000 },
    { name: "iphone 17", price: 70000 },
    { name: "iphone 18", price: 80000 },
    { name: "iphone 16", price: 60000 },
  ];

function searchProduct(products, searchText)
{
  const result=[];
  for(const product of products)
  {
    if(product.name.includes(searchText))
    {
      result.push(product);
      console.log(product);
      console.log(product.name);
    }
    // console.log(product);
    // console.log(product.name);
  }
  return result;
}

console.log(searchProduct(product,"iphone 16"));

```

## 23\_5-5 Explore break and continue for selecting some products

```

const product = [
  { name: "iphone 14", price: 40000 },
  { name: "iphone 15", price: 50000 },
  { name: "iphone 16", price: 60000 },
  { name: "iphone 17", price: 70000 },
  { name: "iphone 18", price: 80000 },
  { name: "iphone 16", price: 40000 },
];

for(const products of product)
{
  if(products.price>50000)
  {
    break;
  }
  console.log(products);
}

```

```
for (const products of product)
{
  if (products.price < 50000)
  {
    continue;
  }
  console.log(products);
}
```