Module 18-Fundamental Concepts Array and Conditionals

18-1 Module Introduction and Variable recap

18-2 Declare Array, array length and array index

```
var friendsAge = [11, 12, 13, 14, 15, 16, 17, 18, 19, 20];

var friendsName = ["Md.Hamid Hosen", "Fahim", "Nayeem", "Mijan", "Moinul"];

var oddNumbers = [1, 3, 5, 7, 9];

var vowels = ['a', 'e', 'i', 'o', 'u'];

console.log(friendsAge);
console.log(friendsAge.length);

console.log(friendsName);
console.log(friendsName.length);

console.log(oddNumbers);
console.log(oddNumbers.length);

console.log(vowels);
console.log(vowels.length);
```

18-3 Array index, get and set by index, indexOf

Array Index start=0

```
var friendsAge = [11, 12, 13, 14, 15, 16, 17, 18, 19, 20];

var friendsName = ["Md.Hamid Hosen", "Fahim", "Nayeem", "Mijan", "Moinul"];

// Index
console.log(friendsAge.indexOf(12));
console.log(friendsAge.indexOf(120));
console.log(friendsName.indexOf("Mijan"));

console.log(friendsAge[3]);
console.log(friendsName[2]);


friendsName[1] = "Hamid Hosen";
```

```
console.log(friendsName);
```

18-4 Add or remove element from array using push, pop

```
var friendsAge = [11, 12, 13, 14, 15, 16, 17, 18, 19, 20];

//add last
console.log(friendsAge.push(23));
console.log(friendsAge.push(24));
console.log(friendsAge);

//pop last
console.log(friendsAge.pop);
console.log(friendsAge.pop);
console.log(friendsAge);

// Add first
console.log(friendsAge.unshift("Orange"));
console.log(friendsAge.unshift(40));
console.log(friendsAge);

//pop first
console.log(friendsAge.shift());
console.log(friendsAge.shift());
console.log(friendsAge);
```

18-5 Compare variables and Comparison operator

```
var num1 = 20;
var num2 = 30;

console.log(num1 < num2);
console.log(num1 <= num2);
console.log(num1 > num2);
console.log(num1 >= num2);
console.log(num1 == num2);
console.log(num1 != num2);
console.log(num1 && num2);
console.log(num1 || num2);
```

18-6 Make conditional decision, if-else, comparison

```
var num1 = 20;
```

```
var num2 = 30;

if (num1 < num2) {
    console.log(num1 < num2);
} else if (num1 <= num2) {
    console.log(num1 <= num2);
} else if (num1 > num2) {
    console.log(num1 > num2);
} else if (num1 >= num2) {
    console.log(num1 >= num2);
} else if (num1 == num2) {
    console.log(num1 == num2);
} else if (num1 != num2) {
    console.log(num1 != num2);
} else if (num1 && num2) {
    console.log(num1 && num2);
} else {
    console.log(num1 || num2);
}
```

18-7 Handle multiple conditions, and or

```
var num1 = 20;
var num2 = 30;
var name = "Md.Hamid Hosen";
var age = 23;

if ((num1 < num2) && (name == "Md.Hamid Hosen") || age == 23) {
    console.log("Valid");
} else {
    console.log("Invalid");
}
```

18-8 (advanced) Multi stage condition and nested conditions

```
var name = "Hamid Hosen";
var num1 = 50;
var num2 = 30;
var num3 = 20;

if (num1 < num2) {
    if (num1 < num3) {
        console.log("Number1 is small");
```

```
    } else {
        console.log("Number3 is small");
    }
} else {
    if (num2 < num3) {
        console.log("Number2 is small")
    } else {
        console.log("Number3 is small");
    }
}
```

8-9 Module summary and two more comparisons