console.log("Inside JS file");

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

// Double =[10,4,8,14]

//  function double(x)

//  {

//     return x\*2;

//  }

// const double = function(x)

// {

//   return x\*2;

// }

const double = x=>

 x\*2;

 const triple = x=>

 x\*3;

  const Binary =x=>

    x.toString(16);

  //  const out = arr.map(function Binary(x)

  //  {

  //    return x.toString(2);

  //  })

 let output = arr.map(double);

 console.log(output);

 output = arr.map(triple);

 console.log(output);

 output = arr.map(Binary);

 console.log(output);

  // LINQ

  // var x = (from temp in collection

  //  select temp)

  console.log("Odd Values");

output = arr.filter(IsOdd);

function IsOdd(x)

{

  return x%2;

}

function IsEven(x)

{

  return x%2==0;

}

const out1 = arr.filter(function greaterthan4(x)

{

   return x >4;

}

)

console.log("Odd Numbers")

console.log(output)

output = arr.filter(IsEven);

console.log("Even numbers")

console.log(output)

console.log(out1)

  // const out2 = arr.filter(x)

  // {

  //    x>2;

  // }

  const out3 = arr.filter(x => x<10)

  console.log(out3)

// Sum of numbers

function findSum(arr)

{

  let sum = 0

  for(let i=0;i<arr.length;i++)

  sum+=  arr[i];

  return sum;

}

console.log("Sum is " + findSum(arr));

// Max no

function MaxNo(arr)

{

  let max = 0

  for(let i=0;i<arr.length;i++)

  if(arr[i] > max)

  max = arr[i];

  return max;

}

console.log("Max no is " + MaxNo(arr));

// Reduce

// const arr =[1,2,3,4];

const sum = arr.reduce(function(acc, cur)

{

   acc = acc+ cur;

   return acc;

},0)

console.log(sum);

const max = arr.reduce(function(acc, cur)

{

   if(cur>acc){

     acc = cur;

   }

   return acc;

})

console.log(max);

// Collections

const users =[

  {firstName:"Ajay", lastName:"Sood", Age:23},

  {firstName:"Deepak", lastName:"Kumar", Age:41},

  {firstName:"Vjay", lastName:"Sood", Age:25},

  {firstName:"Ajay", lastName:"Sood", Age:23}

];

// List all names

var usersList = users.map(function(x)

{

  console.log(x.firstName + " " + x.lastName)

})

usersList = users.filter(function(x)

{

   return x.Age> 30;

})

usersList = users.filter((x)=> x.Age> 30).map((x)=> x.firstName);

console.log("Users List")

console.log(usersList);

//23 : 2, 41 : 1, 25 :1

const usersGroup = users.reduce(function(acc,cur)

{

   if(acc[cur.Age])

   {

      acc[cur.Age] = ++ acc[cur.Age];

   }

   else

   {

     acc[cur.Age] = 1;

   }

   return acc;

},{})

console.log(usersGroup);