Experiment No:02

```
index.html
            ns ex.ts
                     Js ex.js
                                            PROBLEMS OUTPUT
                                                          DEBUG CONSOLE TERMINAL
ex.ts > ...
 var a:string="Helllo world";
                                           student@IT-526-06:~/Aditi$ tsc ex.ts
 console.log(a)
                                           student@IT-526-06:~/Aditi$ node ex.js
                                            Helllo world
                                           o student@IT-526-06:~/Aditi$ □
 index.html > ♦ html
     <!DOCTYPE html>
                                                      7 Filter Output
             <title>hello world</title>
                                                  Helllo world
         </head>
             <script src="ex.js"></script>
         </body>
                                               》
     </html>
TS array.ts > ...
                                         C:\Typescript>tsc array.ts
      let b:number | string=10;
                                         C:\Typescript>node array.js
      console.log(b)
                                         C:\Typescript>tsc array.ts
export{}
let b:number[]=[10,20,30]
                                         C:\Typescript>node array.js
console.log(b);
                                         [ 10, 20, 30 ]
 export{}
                                         C:\Typescript>tsc array.ts
 let b:(string|number)[]=["hello",3]
b.push("world")
                                         C:\Typescript>node array.js
                                         [ 'hello', 3, 'world' ]
 console.log(b)
                                         C:\Typescript>tsc array.ts
export{}
let b:any=[10,30,"a"]
                                         C:\Typescript>node array.js
b.push("b")
                                         [ 10, 30, 'a', 'b' ]
console.log(b)
  export{}
                                       C:\Typescript>tsc array.ts
  let b:any=[10,20,30,"b"]
                                       C:\Typescript>node array.js
  b.push(true)
                                       [ 10, 20, 30, 'b', true ]
```

console.log(b)

```
export{}
                                      C:\Typescript>tsc array.ts
 function test()
                                      C:\Typescript>node array.js
      console.log("hello");
                                       hello
 test();
export{}
                                        C:\Typescript>tsc array.ts
function test(a:number,b:number):number
   return a+b
                                        C:\Typescript>node array.js
                                        30
console.log(test(10,20));
export{}
                                       C:\Typescript>tsc array.ts
function test (a:number,b?:number):number
return b?a+b:a
                                       C:\Typescript>node array.js
                                        20
console.log(test(20));
export{}
                                        C:\Typescript>tsc array.ts
function test (a:number,b?:number):number
                                        C:\Typescript>node array.js
return b?a+b:a
console.log(test(30,20));
  export{}
                                       C:\Typescript>tsc array.ts
  var x=
  {name:"test",
                                       C:\Typescript>node array.js
  roll:3
                                       { name: 'test', roll: 3 }
  console.log(x)
  export{}
                                        C:\Typescript>tsc array.ts
  let a:number[]=[10,20]
  console.log(a[0])
                                       C:\Typescript>node array.js
  console.log(a[1]
                                        10
                                        20
                                        C:\Typescript>tsc array.ts
let b:string[]=["apple","orange","grapes"];
function test(b):string
                                        C:\Typescript>node array.js
   return b;
                                        [ 'apple', 'orange', 'grapes' ]
console.log(test(b));
```

```
export{}
interface y
{
    name:string,
    roll:number
}
var x:y=
{
    name:"test",
    roll:3
}
console.log(x);
```

```
C:\Typescript>tsc array.ts
C:\Typescript>node array.js
{ name: 'test', roll: 3 }
```

```
export{}
let b:string[]=["apple","orange","grapes"];
function test(c):any
{
    for(let i=0;i<c.length;i++)
        console.log(c[i]);
}
test(b);</pre>
```

```
C:\Typescript>node array.js
apple
orange
grapes
```