NAME : Sri Nithyasri

REG.NO : 717823T153

DEPT : Electronics and TeleCommunication Engineering

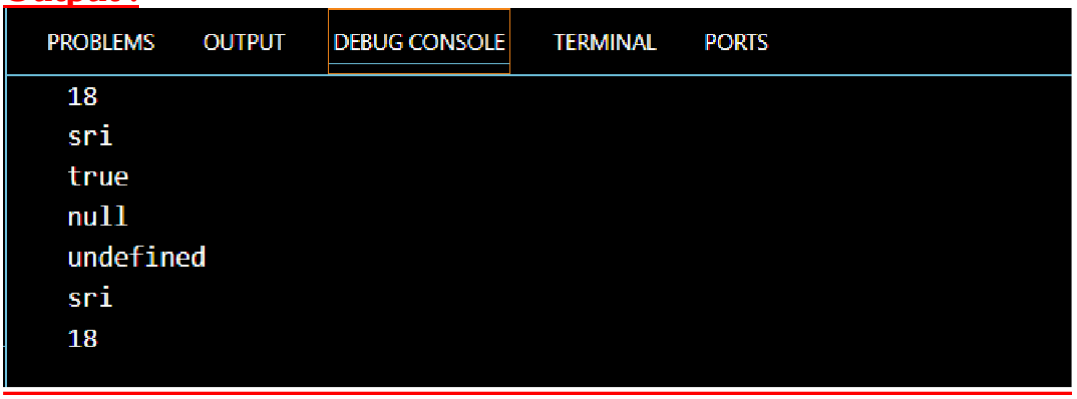
MERN STACK TASK(Q21-Q30)

TASK 21: Create variables of different data types (e.g., string, number, boolean, null, undefined, object).

Program :

```
<!DOCTYPE html>
<html>
    <head>
    <title>
        Sri Nithyasri-717823t153
    </title>
</head>
<body>
    <script>
        var a=18;
        var b="sri";
        var c=true;
        var d=null;
        var e;
        var obj={
         name:"sri",
         age:18,
        }
        console.log(a);
        console.log(b);
        console.log(c);
        console.log(d);
        console.log(e);
        console.log(obj.name);
        console.log(obj.age);
         </script>
</body>
</html>
```

Output :



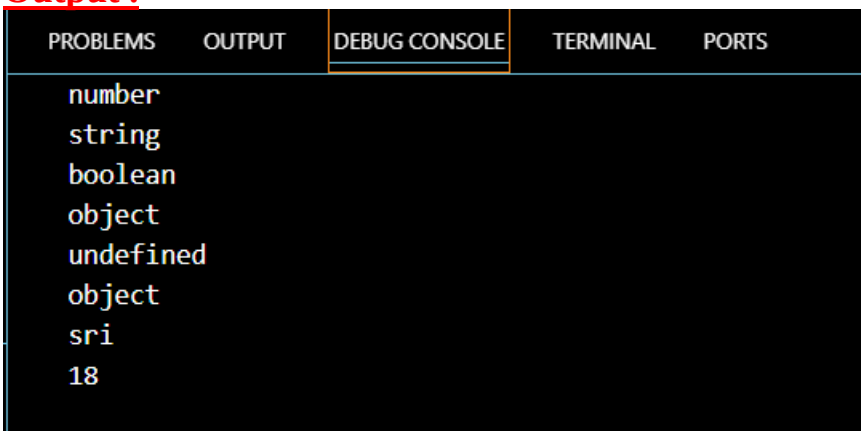
TASK 22 : Use the typeof operator to determine the type of various variables

Program :

```
<!DOCTYPE html>
<html>
    <head>
    <title>
        Sri Nithyasri-717823t153
    </title>
</head>
<body>
    <script>
        var a=18;
        var b="sri";
        var c=true;
        var d=null;
        var e;
        var obj={
         name:"sri",
         age:18,
        }
        console.log(typeof(a));
        console.log(typeof(b));
        console.log(typeof(c));
        console.log(typeof(d));
        console.log(typeof(e));
        console.log(typeof(obj));
        console.log(obj.name);
        console.log(obj.age);
         </script>
</body>
```

</html>

Output :

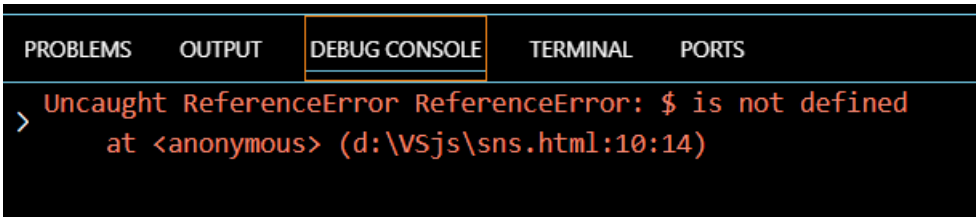


TASK 23: Declare a symbol and print its type .

Program :

```
<!DOCTYPE html>
<html>
    <head>
    <title>
        Sri Nithyasri-717823t153
    </title>
</head>
<body>
    <script>
        var s=$;
        console.log(typeof(s));
         </script>
</body>
</html>
```

Ouput :

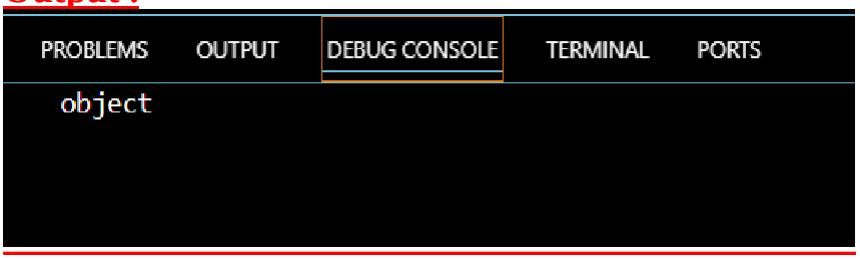


TASK 24: . Assign the value null to a variable and check its type using typeof.

Program :

```
<!DOCTYPE html>
<html>
    <head>
    <title>
        Sri Nithyasri-717823t153
    </title>
</head>
<body>
    <script>
        var a=null;
        console.log(typeof(a));
         </script>
</body>
</html>
```

Output :



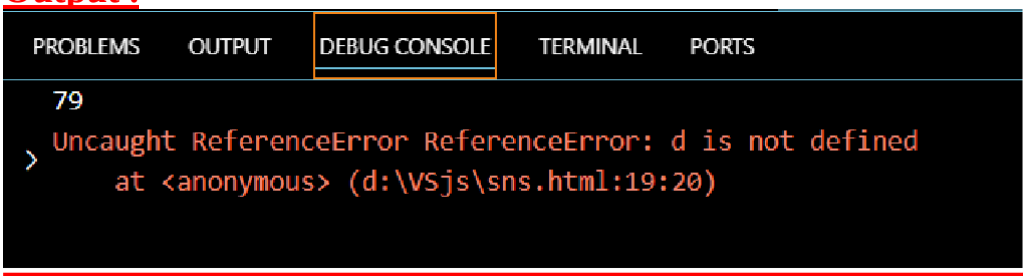
TASK 25 : Differentiate between declaring a variable using var and let in terms of scope

Program :

```
<!DOCTYPE html>
<html>
    <head>
    <title>
        Sri Nithyasri-717823t153
    </title>
</head>
<body>
    <script>
        var a=10;
        if(a>5){
        var b=79;
```

```
        }
        console.log(b);
        let c=58;
        if(c<100){
         let d=90;
        }
        console.log(d);
        console.log("This depicts that the var keyword is used for global accessing and let keyword is used for scope / function specific accessing of the values stored in the corresponding variables and also if the let variables are accessed outside their scope it gives raise to a reference errror")
        </script>
</body>
</html>
```

Output :



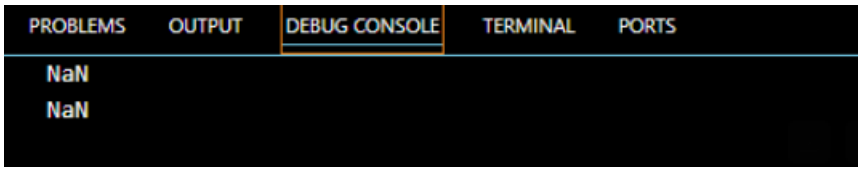
TASK 26: Convert a string to a number using both implicit and explicit conversion.

Program :

```
<!DOCTYPE html>
<html>
<head>
<title>
Sri Nithyasri-717823T153
</title>
</head>
<body>
<script>
var a="sri";
var result=Number(a);//string to number explicitly
console.log(result);
var b="nithya";
var result1=b-0;//string to number implicitly
console.log(result1);
```

```
</script>
</body>
</html>
```

Output :



TASK 27: Convert a boolean to a string and vice versa

Program :

```
<!DOCTYPE html>
<html>
   <head>
      <title>
         Sri Nithyasri-717823T153
      </title>
   </head>
   <body>
      <script>
        let a="sri";
        let result=(a==="sri");
        let b=true;
        let result1=b.toString(b);
        console.log(result);
        console.log(result1);
      </script>
   </body>
</html>
```

Output:

TASK 28: Practice basic arithmetic operators (+, -, *, /, %).

Program :

```
<!DOCTYPE html>
<html>
  <head>
    <title>
      Sri Nithyasri-717823T153
    </title>
  </head>
  <body>
    <script>
     let calculator={
      sum(){
        return this.a+this.b;
      },
      diff(){
        return this.a-this.b;
      },
      pro(){
        return this.a*this.b;
      },
      q(){
        return this.a/this.b;
      },
      r(){
        return this.a%this.b;
      },
      read(){
        this.a=+prompt("a?",0);
        this.b=+prompt("b?",0);
      },
     };
     calculator.read();
     alert("sum"+calculator.sum());
     alert("difference"+calculator.diff());
     alert("product"+calculator.pro());
     alert("quotient"+calculator.q());
     alert("remainder"+calculator.r());
    </script>
  </body>
</html>
```

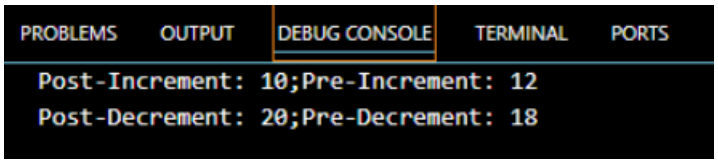
Output :

TASK 29: Use the ++ and -- operators on a numeric variable.

Program :

```
<!DOCTYPE html>
<html>
   <head>
      <title>
         Sri Nithyasri-717823T153
      </title>
   </head>
   <body>
      <script>
        var a=10;
        console.log("Post-Increment: "+ (a++)+";Pre-Increment: "+ (++a));
        var b=20;
        console.log("Post-Decrement: "+ (b--)+";Pre-Decrement: "+ (--b));
      </script>
   </body>
</html>
```

Output :



TASK 30: Explore the precedence of operators by combining multiple operators in a single expression.

Program :

```
<!DOCTYPE html>
<html>
   <head>
      <title>
         Sri Nithyasri-717823T153
      </title>
   </head>
   <body>
      <script>
        var a=10;
        var result=+a++ + ++a;
        console.log(result);
      </script>
   </body>
</html>
```

Output :