

Basic Constructs: Conditional Statements and Iterative Statements

Assignment Solutions



Assignment Solutions

1. Iterate from 1 to 100(using for loop and if else statement) (Submittable assignment)

- Print Relevel if divisible by 3
- Print Buzz if divisible by 5
- Print MindBuzz if divisible by 15
- Print the number if all the above condition fails

Solution:

```
for(let i=1;i<=100;i++){  
  if(i%3==0 && i%5==0){  
    console.log("MindBuzz");  
  }  
  else if(i%3==0){  
    console.log("Relevel");  
  }  
  else if(i%5==0){  
    console.log("Buzz");  
  }  
  else{  
    console.log(i);  
  }  
}
```

Output:

```
1  
2  
"Relevel"  
4  
"Buzz"  
"Relevel"  
.  
.  
.  
.  
.  
"Buzz"  
"Relevel"  
97  
98  
"Relevel"  
"Buzz"
```

To the run the code live and test click [here](#).

2. Program to check if a number is odd or even (Submittable assignment)

Solution:

```
function check(n) {  
  if (n%2==0) {  
    console.log("Number is even");  
  }  
  else{  
    console.log("Number is odd");  
  }  
}  
  
check(101);  
check(100);
```

Output:

```
"Number is odd"  
"Number is even"
```

To run the code live and test click [here](#).

3. Program to check if a number is a perfect square (Submittable assignment)

Solution:

```
function isPerfectSquare(n) {  
  var x=Math.floor(Math.sqrt(n));  
  if (x*x==n) {  
    return true;  
  }  
  else{  
    return false;  
  }  
}  
  
console.log(isPerfectSquare(101));  
console.log(isPerfectSquare(100));
```

Output:

```
false  
true
```

To run the code live and test click [here](#).

Development Question:

Create a ChessBoard like structure using HTML,CSS,JS.

1. Define two class in css for black and white pattern
2. Use nested for loop to create Chessboard like structure
3. Use if else statement for positioning of divs

0	1	2	3	4	5	6	7
8	9	10	11	12	13	14	15
16	17	18	19	20	21	22	23
24	25	26	27	28	29	30	31
32	33	34	35	36	37	38	39

Solution:

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <script>
    var j = 0;
    for(let i =0;i<8;i++){
      for(let j=0;j<8;j++){
        var div = document.createElement("div");
        div.innerHTML = i*8+j;
        if((i+j)%2==0){
          div.classList.add("black");
        }else{
          div.classList.add("white");
        }
        document.body.appendChild(div);
      }
    }
  </script>
  <title>Create a ChessBoard</title>
```

```
</head>
<body>

</body>
</html>
```

CSS Code:

```
body{
  width:100%;
  height:100%;
  background:yellow;
  margin:auto;
}
.black{
  width:10%;
  height:50px;
  background:black;
  float:left;
  margin:1%;
  text-align:center;
  color:white;
}
.white{
  width:10%;
  height:50px;
  background:white;
  float:left;
  margin:1%;
  text-align:center;
  color:black;
}
```

To run the code live and test click [here](#).