

Loops

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Types of loops:

- ☎ For loop
- ☎ For in
- ☎ For of
- ☎ While
- ☎ Do-while

For loop:

---> syntax of the for loop:

```
For(initialization ;condition ;update-expression){  
-----block of code  
}
```

Ex:

```
<script>  
  for(let i=0;i<=5;i++){  
    console.log(i);  
    document.write(i+"<br>");  
  }  
</script>
```

Output:

0
1
2
3
4
5

Ex:2:

```
<script>
  for(let i=2;i<=9;i=i+2){
    console.log(i+3);
    document.write(i+3,"<br>");
  }
</script>
```

Output:

5
7
9
11

//initialization:2+3=5

Then 2increment with 4 and 4<=9 and then it prints 4+3=

7

Then 4 increment with 6 and $6 \leq 9$ and then it prints $6+3=9$

Then 6 increment with 8 and $8 \leq 9$ and then it prints $8+3=11$

Then 8 increment with 10 but $10 \nleq 9$ then loop breaks or stops.

Print the 9th table using for loop:

```
<body>
  <script>
    for(let i=9;i<=90;i=i+9){
      document.write(i,"<br>");
    }
  </script>
```

Output:

9
18
27
36
45
54
63
72
81
90

For in:

Example:

```
<script>
  const a="karna"
  for(let i in a){
    document.write(a[i])
  }
</script>
```

Output:

Karna

For of:

```
<script>
  const a=["malli","yash","nani","gopi"]
  for(let i of a){
    document.write(i+"<br>")
  }
</script>
```

Output:

Malli

Yash

Nani

Gopi

While:

Syntax:

```
While(condition){  
---block of code  
}
```

Example:

```
<script>  
  let i=1,n=5;  
  while(i<=n){  
    document.write(i+"<br>")  
    i++  
  }  
</script>
```

Output:

1
2
3
4
5

Ex:2

```
<script>
  let i=2,n=8;
  while(i<=n){
    document.write(i+1+"</br>")
    i=i+2
  }
</script>
```

Output:

3
5
7
9

Do-while:

Example:

```
<script>
  let i=1,n=8;
  do{
    document.write(i+1+"</br>")
    i=i+2
  }
  while(i<=n){
  }
</script>
```

Output:

2

4

6

8