Functions in javascript

A function is a small, logical and functional part of a program that can be reused in the program. It contains a block of code designed to perform a particular task.
To use a function in a program, it obviously needs to be called somewhere. When a function is called, it executes the code in the function and returns the flow of the program back to the statement next to the calling statement.

A built-in function or library function is the function that is already defined in the javascript. Functions like alert() , write() , prompt(), confirm() etc are built-in functions.

A custom function or user-defined function is the function that is defined by the user in order to perform a particular task in a program.

Syntax:

```
function functionname(parameter-list)
{
        Block of codes
};
```

Advantages of functions

Code reusability
Less coding
Simplifies program
Less readable
Easier to extend
Easier to maintain

Concept of modularization

Categories of user-defined functions in javascript

1. Functions with no arguments and no return type

```
<html>
<head>
<title>Functions with no argument and no return</title></head>
<h1>Compiled By Er.Gaurab Mishra</h1>
<body>
<script type="text/javascript">
        function area()
        {
                var l=prompt("enter the length");
                var b=prompt("enter the breadth");
                var result=l*b;
                document.write("The area is =" + result);
        }
</script>
        <button onclick="area()">click me</button>
</body>
</html>
```

2.Functions with no argument but return value

```
<html>
<head>
<title>Functions with no argument but return value</title></head>
<h1>Compiled By Er.Gaurab Mishra</h1>
<body>
<script type="text/javascript">
        function area()
```

```
	{
		var l=prompt("enter the length");
		var b=prompt("enter the breadth");
		return l*b;
	}
</script>
	<button onclick="document.write(area())">click me</button>
</body>
</html>
```

3. Functions with arguments and no return value

```
<html>
<head>
<title>Functions with arguments and no return value</title></head>
<h1>Compiled By Er.Gaurab Mishra</h1>
<body>
<script type="text/javascript">
	var l=prompt("enter the length");
	var b=prompt("enter the breadth");
	function area(x,y)
	{
		var result=x*y;
		document.write("The area is =" + result);
	}
</script>
	<button onclick="area(l,b)">click me</button>
</body>
</html>
```

4. Functions with arguments and return value

```
<html>
```

```
<head>
<title>Functions with arguments and return value</title></head>
<h1>Compiled By Er.Gaurab Mishra</h1>
<body>
<script type="text/javascript">
	var l=prompt("enter the length");
	var b=prompt("enter the breadth");
	function area(x,y)
	{
		return x*y;
	}
</script>
	<button onclick="document.write(area(l,b))">click me</button>
</body>
</html>
```