Experiment No.: 01

Date of Performance:

TITLE: Calculate area of triangle, area of rectangle and area of circle

Aim: Write a JavaScript program to calculate area of triangle, area of rectangle and area of circle

Problem Statement:

Write a JavaScript method to calculate area of triangle,

Write a JavaScript method to calculate area of rectangle and area of circle

Objective:

1. Student will be able to understand basic structure of JavaScript program
2. To learn basic input output statements and functions in JavaScript.
3. To learn different data types in JavaScript.

Hardware Requirement:

Any CPU with Pentium Processor or similar, 256 MB RAM or more, 1 GB Hard Disk or more

Software Requirement:

➢ **IDE Software:** Visual Studio Code / Sublime Text3
➢ **Web Browser:** Google Chrome / Firefox/ Internet Explorer.
➢ **Operating System:** Windows 7/10, Linux or MAC OS

Theory:

Adding JavaScript to XHTML Documents

The <**script**> element is commonly used to add script to a document. However, there are four standard ways to includescript in an (X)HTML document:

- Within the <**script**> element
- As a linked file via the **src** attribute of the <**script**> element
- Within an XHTML event handler attribute such as **onclick**
- Via the seudo-URL **javascript:** syntax referenced by a link

The <script> Element

The primary method to include JavaScript within HTML or XHTML is the <script> element. A script-aware browser assumes that all text within the <script> tag is to be interpreted as some form of scripting language.

<script> . . . </script>

By default <script> tends to interpret contents as JavaScript

However, it is possible for the browser to support other scripting languages such as VBScript, which is supported by the Internet Explorer family of browsers.

Traditionally, the way to indicate the scripting language in use is to specify the language attribute for the tag.

For example,

<script language="JavaScript" type="text/javascript">

</script>

Input and Output in JavaScript:

Interacting with the user is typically achieved through the Window object, several methods of which are described here.

alert() method: One of the most common I/O methods in JavaScript is using the alert() method of Window, which displays its argument message in a dialog box that includes an OK button.

For example,

alert("This is an important message!");

confirm method(): Other forms of dialog with the user include the confirm() method, which displays its argument message in a dialog box with both OK and Cancel buttons.

Example:

confirm("Learn JavaScript?");

prompt() method:

The prompt() method to collect some data from the user. A prompt displays its argument message in a dialog box and allows the user to enter data into a text field, as illustrated by this example:

var answer = prompt("What is your favorite color?","");

Basic Data Types:

The basic data types in JavaScript are strings, numbers, and Booleans. A string is a list of characters, and a string literal is indicated by enclosing the characters in single or double quotes. Strings may contain a single character or multiple characters, including whitespace and special characters such as \n (the newline). Numbers are integers or floating-point numerical values, and numeric literals are specified in the natural way. Booleans take on one of two values: true or false. Boolean literals are indicated by using true or false directly in the source code. An example of all three data types follows.

var stringData = "JavaScript has strings\n It sure does";

var numericData = 3.14;

var booleanData = true;

JavaScript also supports two other basic types: undefined and null.

Conclusion:

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Review Questions:

1. What is use of Scripting language?
2. Write features of JavaScript Programming Language.
3. How to insert the JavaScript code in Separate file?
4. Why JavaScript is called loosely typed programming language?

REFERENCES:

1. Jon Duckett, "JavaScript & JQuery: Interactive Front-End Web Development", Wiley, ISBN-13. 978-1118531648
2. David Flanagan, "JavaScript: The Definitive Guide", O'Reilly, 6th Edition, ISBN: 9781491952023.
3. Mike Mackgrath, "Javascripts in easy steps" Dreamtech