Questions

1. Explain what an array is and how do you define and use it in JavaScript.

An array is a data type that is used to store multiple values in a single variable.

2. Write a code snippet that

a. creates an empty array

var arrayName = [ ];

b. adds elements to the end

arrayName.push(element);

c. removes elements from the end

arrayName.pop();

d. removes elements from the beginning

arrayName.shift();

e. adds elements to the beginning

arrayName.unshift(element);

Document your code so that the reader can understand what happens in each phase. Use line comment:

//comment until the end of line

3. The previous question introduced a few Array methods. List and explain ten more Array methods you find useful.

1. arrayName[index]: this method accesses elements in an array using an index number. Assigning a value using the index replaces existing element.

2. splice(): this method is used to add new items to an array.

3. slice(): this method slices out a piece of an array into a new array. A starting point is defined by the index number passed in parentheses.

4. toString(): this method converts an array to a comma separated string.

5. sort(): this method sorts an array alphabetically.

6. reverse(): this method reverses an array. It sorts an array in descending order.

7. forEach(): this method calls a function once for each array element.

8. map(): this method creates a new array by performing a function on each element of an existing array.

9. filter(): this method creates a new array with array elements that passes a test.

10. reduce(): this method runs a function on each array element to produce (reduce it to) a single value.