Amrutvahini College of Engineering, Sangamner
Department of Electronics and Telecommunication Engineering
Subject: JavaScript (Elective-III) (BE, E&TC)

Experiment No.: 02

Date of Performance:

TITLE: Generate the multiplication table of a given number

Aim: Write a JavaScript program to generate the multiplication table of a given number.

Problem Statement:

Write a program to generate the multiplication table of a given number

Software Tools: Visual Studio Code IDE/Sublime Text/Atom

Objective:

1. Learn basics of how to use document object.
2. Learn different tokens and operators used in JavaScript.
3. To learn looping 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:

JavaScript's Primitive Types

JavaScript supports five primitive data types:

- Number
- String
- Boolean
- Undefined
- null

These types are referred to as primitive types because they are the basic building blocks

from which more complex types can be built. Of the five, only number, string, and Boolean are real data types in the sense of actually storing data. Undefined and null are types that arise under special circumstances.

Composite Types

An object is a composite type that can contain primitive and composite types.

The main distinction between primitive types and composite types is that primitive types contain only data in the form of a fixed set of values (e.g., numbers); objects can contain primitive data as well as code (methods) and other objects.

Objects: Objects can hold any type of data and are the primary mechanism by which useful tasks are carried out. The browser provides a large number of objects foryou to use. For example, you can interact with the user through the **Window** object or modify the contents of a Web page with the **Document** object.

Data contained in an object are said to be *properties* of the object. Properties are accessed with the "dot" operator, which is simply a period followed by the property name. The syntax is:

objectname.propertyname

In fact, we have already used methods in our previous examples. The write() method of the Document object was used to output text to the screen:

document.write("Hello JavaScript world!");

For example, writing document.write might become tiresome, as would accessing even more deeply nested sub-objects. By using the keyword with, we can avoid referencing the full path to an object's property or method:

```
with (document)
{
write("this is easier ");
write("than writing out ");
write("the whole path");
}
```

Flow Control Statements:

Statements execute in the order they are found in a script. In order to create useful programs, it is usually necessary to employ flow control, code that governs the "flow" of program execution. JavaScript supports conditionals like if/else and switch/case statements that permit the selective execution of pieces of code. An example of an if/else statement is

```
if (x >> 10)
{
```

```
    x = 0;
  }
else

{

  x = x + 1;

}
```

Conclusion:

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Review Questions:

1. What is NaN and undefined data type?
2. What are the issues related to number data type representation?
3. What is use of new and delete operator in Object data type?
4. How to declare String? Explain with example.
5. What is difference between == and === operator? Explain with example.

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