**Practical No.11**

**Name**: Anuj Rajendra Mane

**Div**: SY A

**Roll No**: 65 **Batch**: A3

**PRN** **No**: 2162701242054

**Title: Programs on JavaScript Validations using regular expressions.**

JavaScript is *an object-based scripting language* which is lightweight and cross-platform.JavaScript is not a compiled language, but it is a translated language. The JavaScript Translator (embedded in the browser) is responsible for translating the JavaScript code for the web browser.

##### What is JavaScript

JavaScript (js) is a light-weight object-oriented programming language which is used by several websites for scripting the webpages. It is an interpreted, full-fledged programming language that enables dynamic interactivity on websites when applied to an HTML document. It was introduced in the year 1995 for adding programs to the webpages in the Netscape Navigator browser. Since then, it has been adopted by all other graphical web browsers. With JavaScript, users can build modern web applications to interact directly without reloading the page every time. The traditional website uses js to provide several forms of interactivity and simplicity. Although, JavaScript has no connectivity with Java programming language. The name was suggested and provided in the times when Java was gaining popularity in the market. In addition to web browsers, databases such as CouchDB and MongoDB uses JavaScript as their scripting and query language.

##### Features of JavaScript

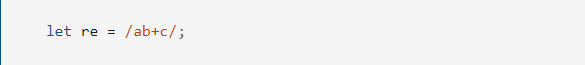
**There are following features of JavaScript:**

1. All popular web browsers support JavaScript as they provide built-in execution environments.
2. JavaScript follows the syntax and structure of the C programming language. Thus, it is a structured programming language.
3. JavaScript is a weakly typed language, where certain types are implicitly cast (depending on the operation).
4. JavaScript is an object-oriented programming language that uses prototypes rather than using classes for inheritance.
5. It is a light-weighted and interpreted language.
6. It is a case-sensitive language.
7. JavaScript is supportable in several operating systems including, Windows, macOS, etc.
8. It provides good control to the users over the web browsers.

Regular expressions are patterns used to match character combinations in strings. In JavaScript, regular expressions are also objects. These patterns are used with the exec() and test() methods of RegExp, and with the match(), matchAll(), replace(), replaceAll(), search(), and split() methods of String. This chapter describes JavaScript regular expressions.

**Creating a regular expression**

You construct a regular expression in one of two ways:

* Using a regular expression literal, which consists of a pattern enclosed between slashes, as follows:

Regular expression literals provide compilation of the regular expression when the script is loaded. If the regular expression remains constant, using this can improve performance.

Or calling the constructor function of the RegExp object, as follows:



Using the constructor function provides runtime compilation of the regular expression. Use the constructor function when you know the regular expression pattern will be changing, or you don't know the pattern and are getting it from another source, such as user input.

**Conclusion:**

I can learned the basic concept of javaScript ans implement the simple programs of js in browser and notepad.

**Completion Date: Co-Ordinator Sign:**