PSG COLLEGE OF TECHNOLOGY

DEPARTMENT OF COMPUTER APPLICATIONS

23MX15 Web Technologies JavaScript Worksheet 1 16.10.2023

Sample code:

| <!DOCTYPE html>  <html lang="en">  <head>  <meta charset="UTF-8">  <meta name="viewport" content="width=device-width, initial-scale=1.0">  <title>Document</title>  </head>  <body>  <script>  //prompt returns string.  n = prompt("enter a number","0");  //parseInt is required to convert the string returned by prompt to Integer.  //other methods or //parseFloat..  x=parseInt(n)%2;  if ( x == 0) {console.log("even number") ;}  else {console.log("odd number"); }  </script>  </body> </html> |
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Method 1: Save the above code in VS code as index.html and run in any browser. Open the terminal in VS code or console in developer tools to check the output

Method 2: Modify this as external javascript , name your js file as myscript\_1.js and link this file to index.html.

Execute the index.html file now.

| //myscript.js  //prompt returns string.  n = prompt("enter a number","0");  //parseInt is required to convert the string returned by prompt to Integer. Other methods or //parseFloat..  x=parseInt(n)%2;  if ( x == 0) {console.log("even number") ;}  else {console.log("odd number"); } |
| --- |

| <!DOCTYPE html>  <html lang="en">  <head>  <meta charset="UTF-8">  <meta name="viewport" content="width=device-width, initial-scale=1.0">  <title>Document</title>  </head>  <body>  <script src="myscript.js">  </script>  </body>  </html> |
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**Method 3 : execute the script contents alone in vscode using the command “node myscript.js”**

Using any of the above methodology write the JavaScript code for the following:

**Solve the following problem just using console. No need to add HTML code. ( as specified in Method 3.)**

1. Print all the natural numbers from 1 to n : use while loop
2. To print all natural numbers in reverse (from n to 1). – use a while loop.
3. To find the sum of all natural numbers between 1 to n.
4. To find the sum of all even numbers between 1 to n.
5. To print all alphabets from a to z. – using while loop
6. To print a multiplication table of any number.
7. To print all ASCII characters with their values.
8. To count the number of digits in a number.
9. To swap first and last digits of a number.
10. To calculate the product of digits of a number.
11. To print the number in reverse.
12. To check whether a number is palindrome or not.
13. To find the frequency of each digit in a given integer.
14. To find the power of a number using the for loop.
15. To find all factors of a number.
16. To calculate the factorial of a number.
17. To print all Prime numbers between 1 to n.
18. To print all Armstrong numbers between 1 to n.
19. To print Fibonacci series up to n terms.
20. To find one’s complement of a binary number.
21. To find two’s complement of a binary number.
22. To convert Binary to Decimal number system.
23. To convert Decimal to Octal number system.
24. To convert Hexadecimal to Binary number system.

**Note: While solving the above problems, explore data types, conditional statements, looping statements , === operator in JavaScript.**