**Program-4: Develop and demonstrate a HTML5 file that includes JavaScript script that uses functions for the following problems:**

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**a. Parameter: A string | Output: The numbers of vowels in the string**

**b. Parameter: A number | Output: The number with its digits in the reverse order and Product of both number and its Reverse**

**1 Saved locations :** *Htmlpage*: /home/lokanath/web/lokanath\_program4/challenge4.htlml

**2 Code:**

<!DOCTYPE html>

<html>

<head>

<title>Challenge-4</title>

</head>

<body>

<script>

var str = prompt("Enter the Input", "");

if (!(isNaN(str)))

{

var num, rev = 0, remainder;

num = parseInt(str);

while (num != 0) {

remainder = num % 10;

num = parseInt(num / 10);

rev = rev \* 10 + remainder;

}

const product = str \* rev;

alert("Reverse of " + str + " is " + rev + " and the product is " + product);

}

else {

str = str.toUpperCase();

function vowels(string) {

var vowels = 'AEIOUaeiou';

var count = 0;

for (i = 0; i < string.length; i++) {

if (vowels.indexOf(string[i]) !== -1) {

count += 1;

}

}

return count;

}

n = vowels(str)

alert("The given string " + str + " has " + n + " number of Vowles")

}

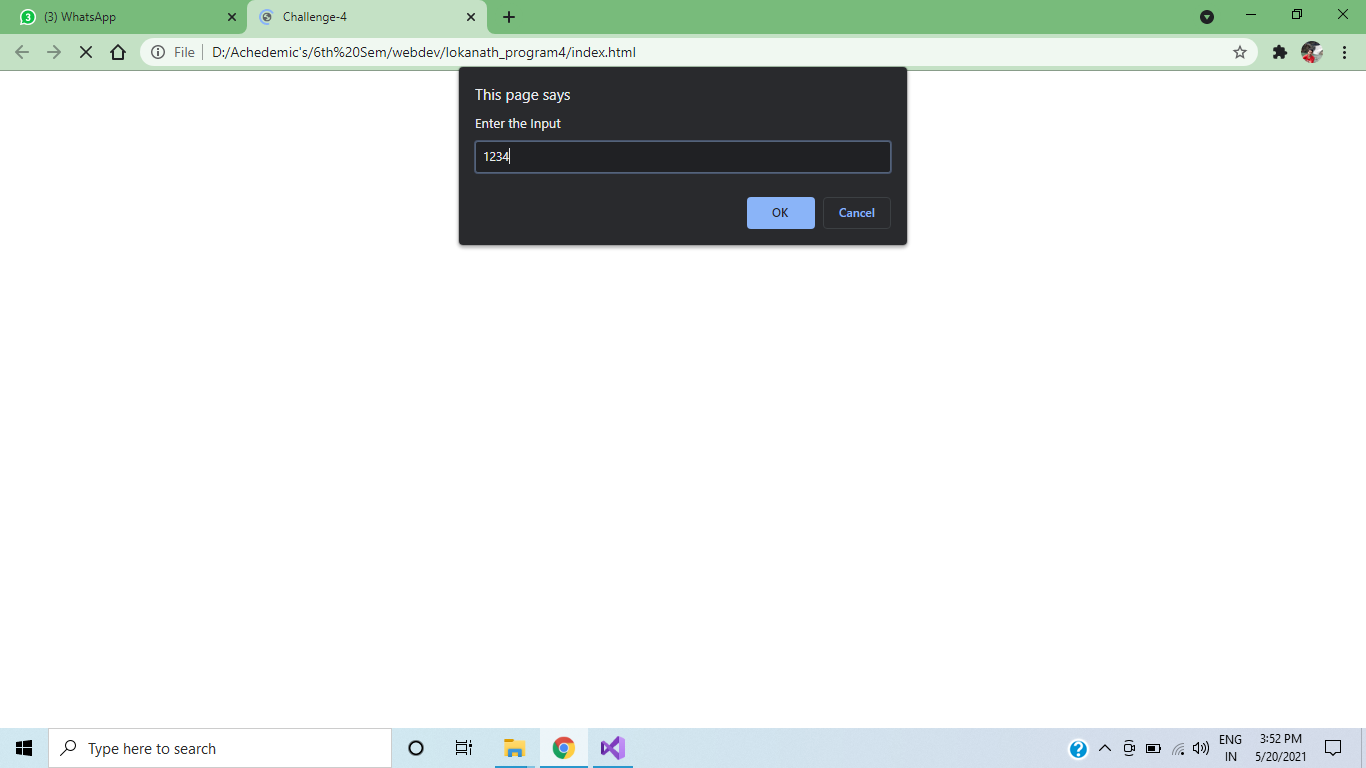
</script>

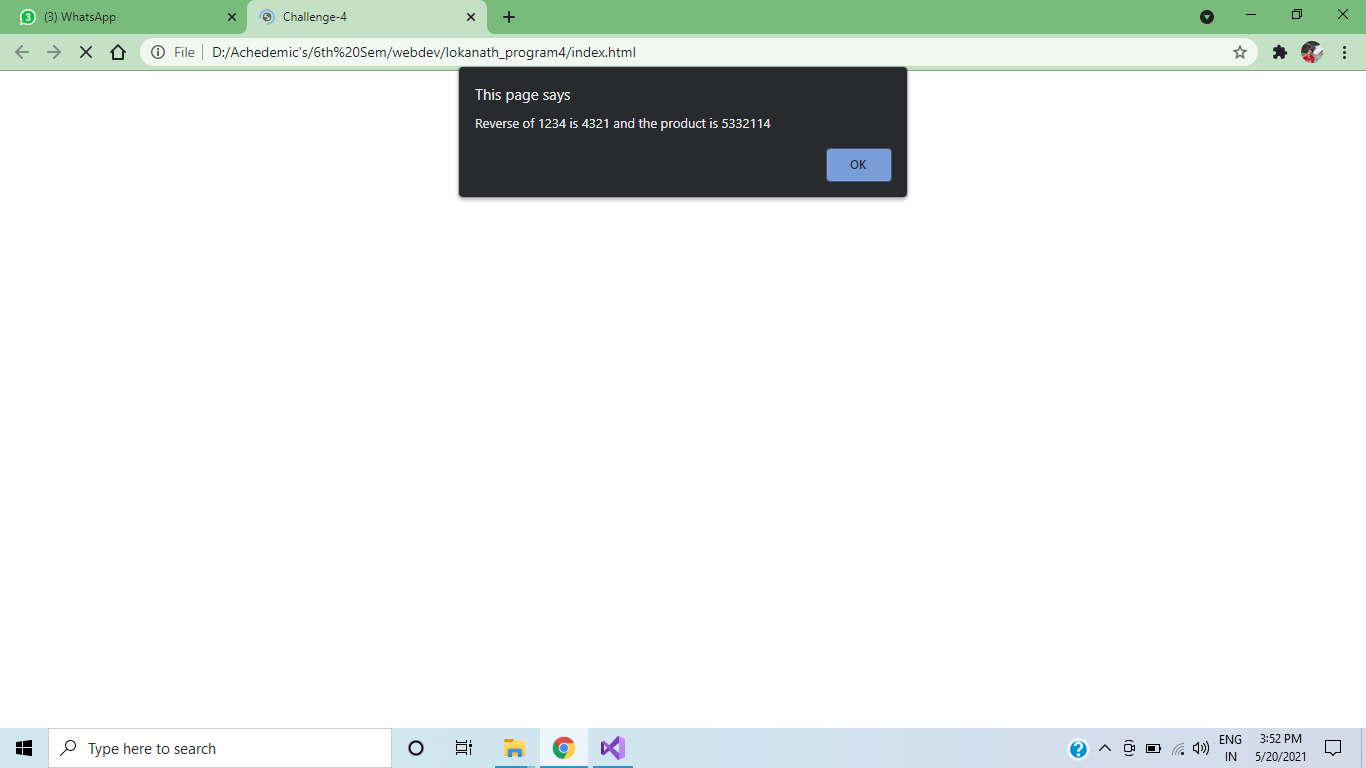
</body>

</html>

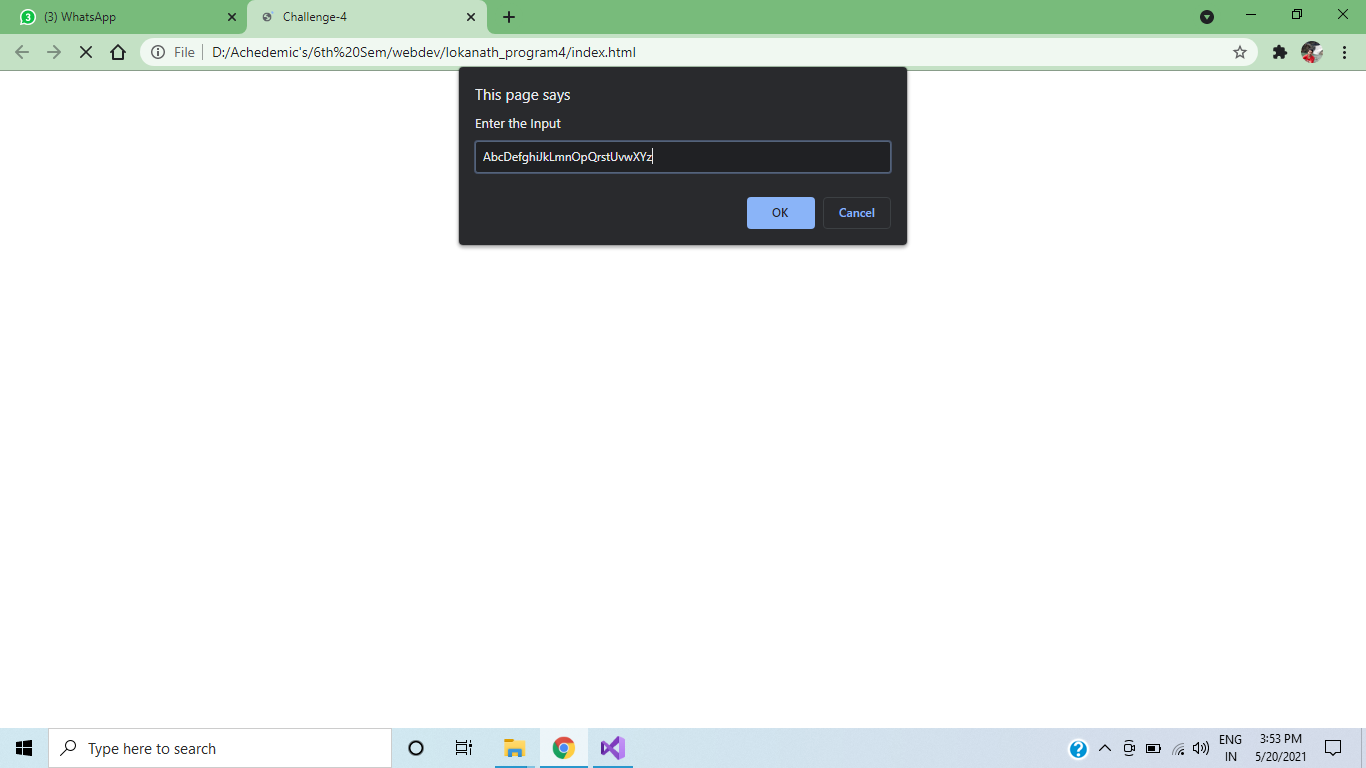
**Output Images:**

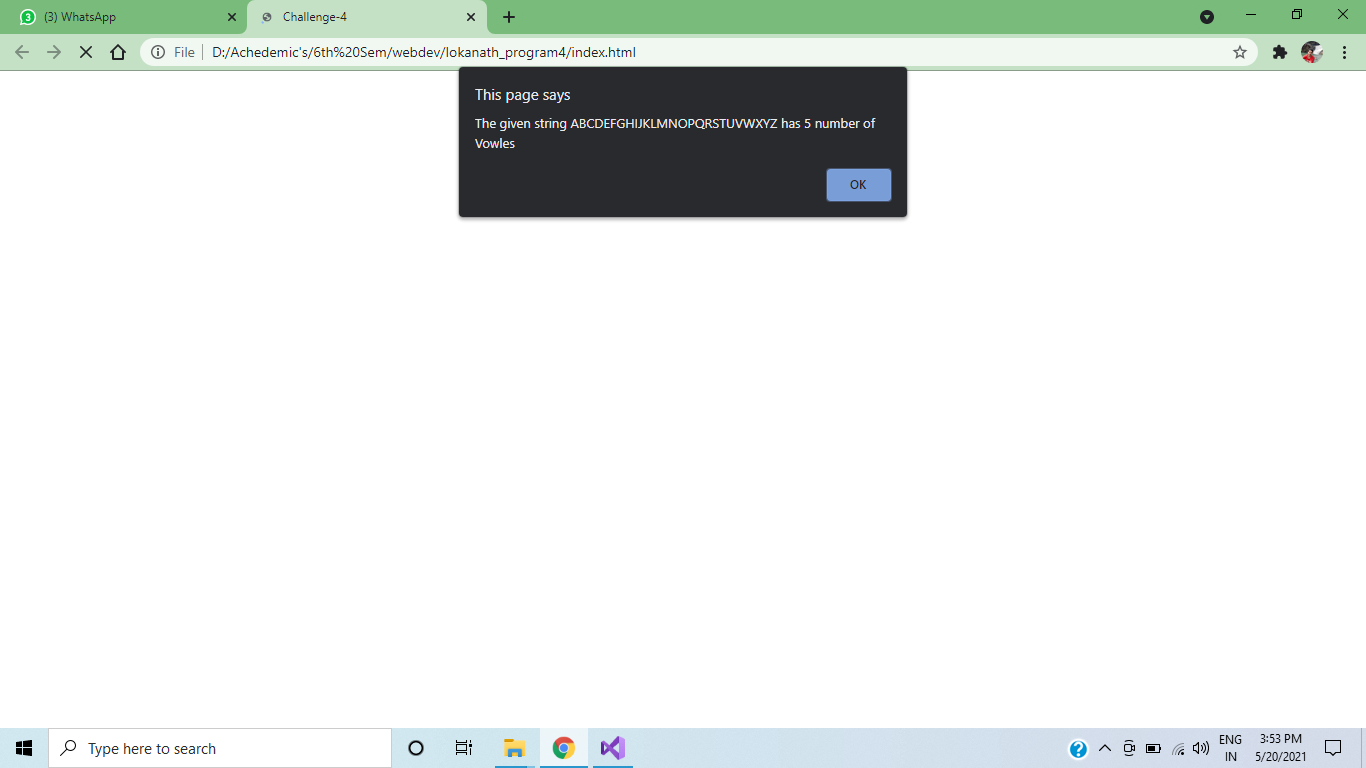
**Numerical Inputs:**

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**Alphabet Inputs:**

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**3. Test cases**

|  |  |  |  |
| --- | --- | --- | --- |
| **Test no** | **Test Case** | **Expected output** | **Actual Output** |
| **1** | a. Integer Value: 1234  b. Text Value:  ABCDEFGHIJKLMNOPQRSTUVWXYZ | a. Reverse of 1234 is 4321 and the product is 5332114  b. The given string ABCDEFGHIJKLMNOPQRSTUVWXYZ has 5 number of Vowles | a. Reverse of 1234 is 4321 and the product is 5332114  b. The given string ABCDEFGHIJKLMNOPQRSTUVWXYZ has 5 number of Vowles |
| **2** | a. Negative Integer value: -96  b. Text Value: -abc | a. Reverse of -96 is -69 and the product is 6624  b. The given string -ABC has 1 number of Vowles | a. Reverse of -96 is -69 and the product is 6624  b. The given string -ABC has 1 number of Vowles |
| **3** | Alpha numerical value: 12abc | The given string 12ABC has 1 number of Vowles | The given string 12ABC has 1 number of Vowles |
| **4** | Non vowel string: bcd | The given string BCD has 0 number of Vowles | The given string BCD has 0 number of Vowles |