1

```
top  Filter
array2 before push:  (10) [1, 2, 3, 4, 5, 6, 7, 8, 9, 0]
array2 after push:  (12) [1, 2, 3, 4, 5, 6, 7, 8, 9, 0, 99.9, 88.8]
array2 after shift (remove first):  (11) [2, 3, 4, 5, 6, 7, 8, 9, 0, 99.9, 88.8]
Initial array3:  []
Final array3:  (4) [5, 10, 17, 20]
Sliced:  (2) [5, 17]
Mapped (doubled):  (4) [10, 34, 20, 40]
Index of 20: 3
Using forEach on array2:
array2[0] = 2
array2[1] = 3
array2[2] = 4
array2[3] = 5
array2[4] = 6
array2[5] = 7
array2[6] = 8
array2[7] = 9
array2[8] = 0
array2[9] = 99.9
array2[10] = 88.8
Using for-of on array1:
1
2
3
4
5
6
7
8
9
10
Using for-in on array1:
Index 0 = 1
```

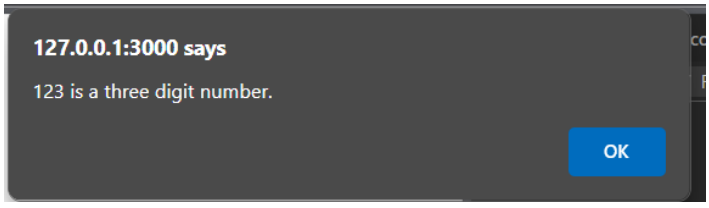
2

I am invoked **normal definition**
I am invoked **function expression**
I am invoked **arrow function**
Sum of 2 and 3 is: 5
Modulus of 31 and 11 is: 9

3

```
messi 38 argentina inter miami left                    22.c.html:12
red big newyork 5                                      22.c.html:23
undefined                                              22.c.html:29
toyota 2020 petrol                                     22.c.html:37
```

4



5

6

Error: Division by zero is not allowed.
Finally block executed
End of script execution

7

Random Integer: 9
Concatenated String(lwr, upr): hello WORLD

8

```
top  Filter  Default levels  No Issues  4 hidde
Thu Apr 10 2025 22:15:42 GMT+0545 (Nepal Time)
Thu Apr 10 2025 22:15:42 GMT+0545 (Nepal Time)
Sun Jan 22 2012 02:30:44 GMT+0545 (Nepal Time)
Mon Jan 03 2011 09:11:45 GMT+0545 (Nepal Time)
Thu Jan 01 1970 05:30:00 GMT+0530 (Nepal Time)
Fri Jan 02 1970 05:30:00 GMT+0530 (Nepal Time)
```

9

Today's date: Thu Apr 10 2025 22:16:26 GMT+0545 (Nepal Time)

Getter Methods:
milli-seconds: 1744302686154
Day of month: 10
Day of week: 4
Full Year: 2025
JSON: 2025-04-10T16:31:26.154Z

Setter Methods:
Date: Mon Dec 02 2030 22:16:26 GMT+0545 (Nepal Time)

Note: some getter setter methods works on index

10

Calculate your age

Enter your birth date: 01/21/2009
Submit

You're **16** years old.

You're **16** years, **2** months and **20** days old.

11

22:30:08

April 10, 2025

Stopwatch

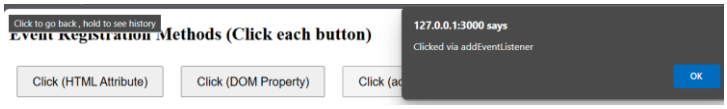
00:00:56

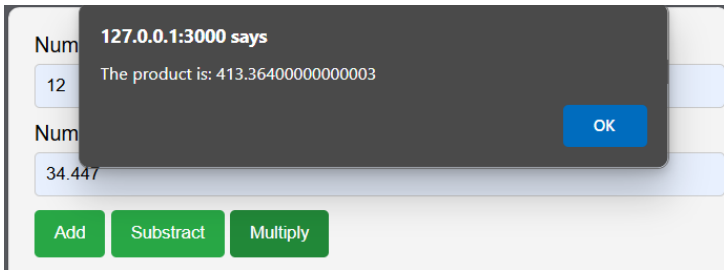
Resume | Reset | Lap

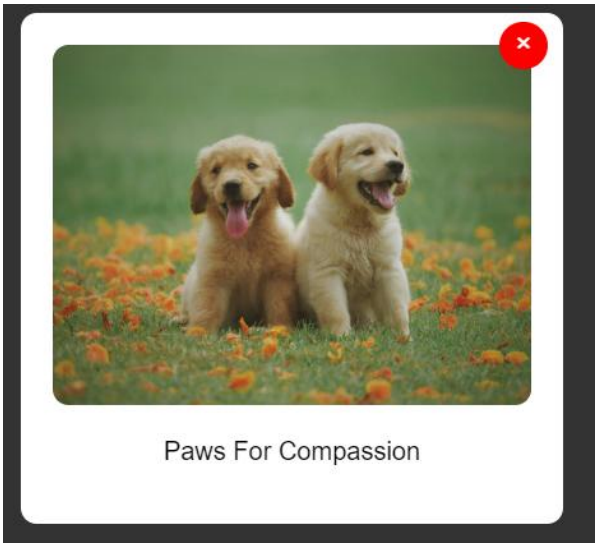
Laps

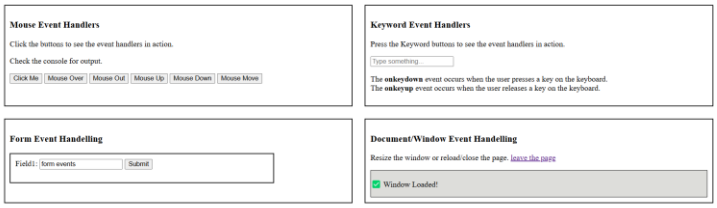
1. 00:00:22
2. 00:00:32
3. 00:00:52

```
Given Date and Time: Thu Apr 10 2025 14:30:00 GMT+0545 (Nepal Time)
Before (2 days, 5 hours): Tue Apr 08 2025 09:30:00 GMT+0545 (Nepal Time)
After (2 days, 5 hours): Sat Apr 12 2025 19:30:00 GMT+0545 (Nepal Time)
```









Welcome to My Website

This is the main content of my webpage.

Keyword Event Handlers

Press the Keyword buttons to see the event handlers in action.

hello

Key is released.

The **onkeydown** event occurs when the user presses a key on the keyboard.
The **onkeyup** event occurs when the user releases a key on the keyboard.

Change Background Color

Light Blue Light Green Light Coral

Hover to See Description

This is a sample image used for demonstration. Hovering reveals this text.

Form Event Handelling

Field1: form events Submit

Event : onblur
When the focus is away from a form element.

Document/Window Event Handelling

Resize the window or reload/close the page. leave the page

Window Loaded!
Window resized: 768 x 651
Window resized: 1528 x 738
Window resized: 768 x 651
Window resized: 768 x 651

DOM Node Properties

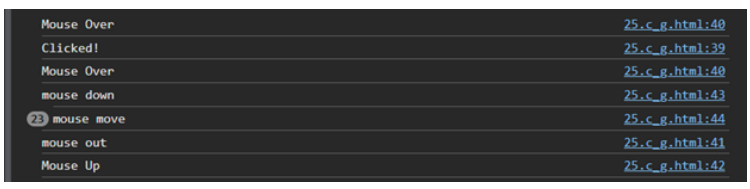
This is the **first** paragraph.

This is the *second* paragraph.

Analyze node

```
nodeName: P
nodeValue null
nodeType: 1
parentNode.nodeName: DIV
firstChild.nodeName: #text
firstChild.nodeValue This is the
lastChild.nodeName: #text
lastChild.nodeValue:  paragraph.
previousSibling.nodeName: #text
nextSibling.nodeValue

childNodes.length: 3
```



Paragraph

JavaScript is a powerful programming language commonly used in web development to create interactive and dynamic user experiences.

Highlight Long Words

Welcome to DOM Selection

This is a paragraph selected by name.

Another paragraph with same name.

This is a div with class 'info'
Another div with class 'info'

- Item 1
- Item 2
- Item 3

Select Elements

```
By ID: Welcome to DOM Selection                                   26.b.html:32
By Name [0]:  This is a paragraph selected by name.               26.b.html:36
By Name [1]:  Another paragraph with same name.                   26.b.html:36
By Tag [li 0]:  Item 1                                            26.b.html:41
By Tag [li 1]:  Item 2                                            26.b.html:41
By Tag [li 2]:  Item 3                                            26.b.html:41
By class [info 0]:  This is a div with class 'info'               26.b.html:46
By class [info 1]:  Another div with class 'info'                 26.b.html:46
By querySelector (.special-item):  Item 2                         26.b.html:50
By querySelectorAll [p[name="description"] 0]:  This is a paragraph selected by name.  26.b.html:54
By querySelectorAll [p[name="description"] 1]:  Another paragraph with same name.      26.b.html:54
```

DOM Node Manipulation

Paragraph 1

🚀 New Paragraph (Created)

Paragraph 2

🚀 New Paragraph (Created)

🚀 New Paragraph (Created)

Create Node | Append Node | Insert Before | Replace Node | Remove Node

DOM Attribute Methods

Check 'alt' Attribute | Get 'src' Attribute | Set New 'title' Attribute | Remove 'alt' Attribute

🎯 "title" attribute set successfully.

Registration Form

First Name*: hary

Last Name: kane

Date of Birth*: 02/17/1992

Gender*: Male

Province*: Province 1

Cell Phone*: 9800000000

Email: kane@gmail.com

User Name*: kane12

Password*: ••••••••

Confirm Password*: ••••••••

Passwords do not match.

Register

127.0.0.1:3000 says

Regristration Successful!

Add Book Records

Book Id: 102 Title: Mahabir Pun Atmakatha Author(s): Mahabir Pun Price: 599.5

Save

Book Id	Title	Author(s)	Price
101	Siris ko Phul	Parijat	345.0
102	Mahabir Pun Atmakatha	Mahabir Pun	599.5
103	MunaMadan	Laxmi Prasad Devkota	350

Districts in Nepal

Display Districts

- Kathmandu
- Chitwan
- Lalitpur
- Pokhara
- Chitwan
- Biratnagar
- Dharan

✅ Districts displayed successfully!

```
Using regex Constructor                                   27.a.html:17
without global flag:  ▶ Array(2)  ▶ Array(2)               27.a.html:18
with global flag:  ▶ Array(2)  ▶ Array(2) null            27.a.html:23
is search found: true                                     27.a.html:25
Using String Literal                                      27.a.html:29
match() method  ▶ Array(3)                                27.a.html:31
▶ Array(1)                                                27.a.html:33
▶ Array(1)                                                27.a.html:33
▶ Array(1)                                                27.a.html:33
found at:  2                                              27.a.html:37
0hiS IS thesis.                                           27.a.html:40
th-- -- thes--.                                           27.a.html:42
th00 00 thes00.                                           27.a.html:43
▶ Array(4)                                                27.a.html:45
```

JS document.forms

Name: Sushanka Email: its.secret@gmail.com Submit

Name: Sushanka
Email: its.secret@gmail.com

Registration Form

First Name*: hary

Last Name: kane

Date of Birth*: 02/17/1992

Gender*: Male

Province*: Province 1

Cell Phone*:

Phone is required.

Email:

User Name*:

Start with letter, allow digits/@/_, 6–15 chars.

Password*:

Must include uppercase, lowercase, digit, special char, 8–20 chars.

Confirm Password*:

Register

Regular Expression Pattern

1. The first character of a string must be uppercase.
   Hello ✅ Good
2. A given value must contain a question marks, a dash and an underscore.
   what about you? _g--d? ✅ Good
3. The value must start from A or a and must end with full stop (.) or exclamation (!).
   A sky full of stars. ✅ Good
4. The value must contain only one blank space.
   do it ✅ Good
5. The string must not contain any digits.
   no digit😍 ✅ Good
6. The string must conation at least a symbol from the group of symbol (, , @, $, _, %, !, &, *, ^, ~, -, +
   ~!@#$%^&*()_+[]{} done ✅ Good
7. The value must not contain any special character and digits.
   no digits ✅ Good
8. The value must contain @ symbol between two words each of at least one character.
   me@you ✅ Good
9. The string must not start with digit.
   12wrong11 ⚠️ Warning!!!
10. The string must start with underscore character or alphabets.
    _myself ✅ Good
11. The value must start with 'BCA-TU-' and after these character there must be only digits.
    BCA-TU-124 ✅ Good
12. The value must be in email address format.
    valid.23@js.com ✅ Good
13. The value must contain at least a vowel letter.
    one ✅ Good
14. The value contain ten digits and first digit cannot be 0.
    9123456789 ✅ Good
15. The value should be email address and its must end with 'edu.np'.
    test.400@tu.edu.np ✅ Good
16. The value should be email address and it must contain 'gmail' or 'yahoo' after @ symbol.
    your@yahoo.com.gov.uk ✅ Good
17. The regex must match if the string contains 'nepal' case insensitively.
    NePaL ✅ Good

jQuery Event Handling

Hover or click me

Enter your Name: Submit

jQuery Event Handling

Hover or click me

Form Submitted! Hello, Sushanka

Enter your Name: Sushanka Submit

jQuery DOM Manipulation

This is now bold HTML content!

New paragraph added!

Change Text | Change HTML | Add Element | Remove Element | Show Image | Hide Image | Toggle Image | Change Style | Slide Toggle | Fade Toggle

JavaScript Cookie Operations

Create Cookies | Read Cookies | Change Cookie | Delete Cookie

```
Current cookies:
username=Sushanka Khadka; role=admin; theme=dark
```

JavaScript Cookie Operations

Create Cookies | Read Cookies | Change Cookie | Delete Cookie

```
Cookies deleted.
```

jQuery DOM Manipulation

This is now bold HTML content!

New paragraph added!

Change Text | Change HTML | Add Element | Remove Element | Show Image | Hide Image | Toggle Image | Change Style | Slide Toggle | Fade Toggle

Signup Form

Name: Sushanka

Email: secret@gmail.com

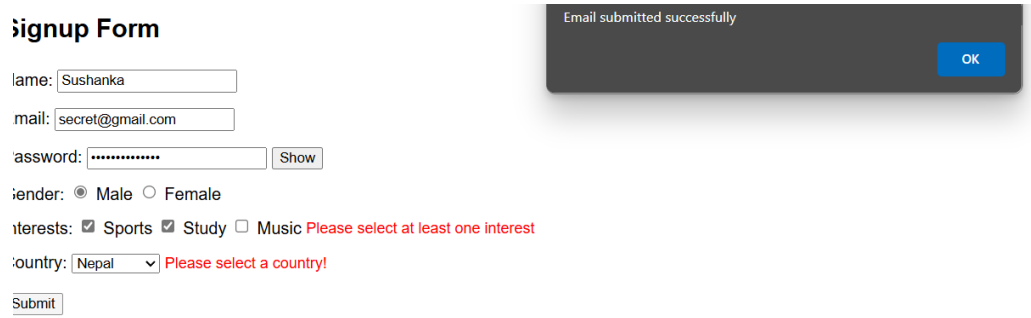
Password: ••••••••••••• Show

Gender: Male Female

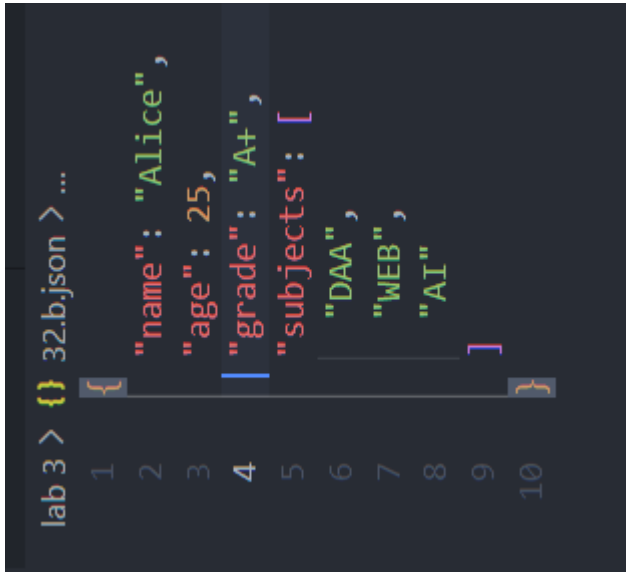
Interests: Sports Study Music Please select at least one interest

Country: ---select--- Please select a country!

Submit



Serialization and Deserialization of JSON (Stringifying and Parsing)

```
{
  "students": [
    {
      "name": "ram",
      "age": 42,
      "grade": "C",
      "subjects": [
        "DAA",
        "WEB"
      ],
      "contact_detail": {
        "email": "ram@gmail.com",
        "phone": 9800000000
      }
    },
    {
      "name": "hari",
      "age": 22,
      "grade": "A",
      "subjects": [
        "DAA",
        "WEB"
      ],
      "contact_detail": {
        "email": "ram@gmail.com",
        "phone": 9800000000
      }
    },
    {
      "name": "ram",
      "age": 42,
      "grade": "C",
      "subjects": [
        "DAA",
        "WEB"
      ],
      "contact_detail": {
        "email": "ram@gmail.com",
        "phone": 9800000000
      }
    }
```

```
PS C:\Users\me\Desktop\lab\lab 3> node 32.b.js
Original Data: { name: 'Alice', age: 25 }
Data updated and written to 32.b.json!
PS C:\Users\me\Desktop\lab\lab 3>
```