

## NodeJs Module System:

### CoreModules:

#### Http;

```
C:\Users\Admin\Desktop\NodeJs>node myfirst
Server running at http://127.0.0.1:8081/
```

Hello, Node.js HTTP Server!

#### Url;

```
^C
C:\Users\Admin\Desktop\NodeJs>node Url
Server is listening on port 8011
```

Node Modules, Using Query String!

#### QueryString Methods;

##### Parse;

```
C:\Users\Admin\Desktop\NodeJs>node Parsingquery
[Object: null prototype] {
  name: 'Karthi',
  age: '22',
  city: 'New York'
}
```

##### Stringify;

```
C:\Users\Admin\Desktop\NodeJs>node Stringifyquery
name=Karthi&age=22&city=Kerala
```

##### Escape&Unescape;

```
C:\Users\Admin\Desktop\NodeJs>node EscUsc
Escaped: Hello%2C%20Node.js!
Unescaped: Hello, Node.js!
```

## Path All Methods:

Sep,join,normalized,resolve,dirname,basename,extname,parse,format...,

```
C:\Users\Admin\Desktop\NodeJs>node Path
Separator: \
Join Paths: project\src\app.js
Normalized Path: project\src\app.js
Resolved Path: C:\home\project\app.js
Directory Name: /home/user/project
Base Name: app.js
Base Name without Extension: app
File Extension: .js
Parsed Path: {
  root: '/',
  dir: '/home/user/project',
  base: 'app.js',
  ext: '.js',
  name: 'app'
}
Formatted Path: /home/user/project\app.js
```

## Util;

```
C:\Users\Admin\Desktop\NodeJs>node util
name is karthi
department is mern
company is Mbt
age = 22
programming lanuages {"prg":"mongodb","prg2":"node","prg3":"Express"}
```

## Local & Export modules;

```
var imp= require('./Import');

var x='kar';
var y='thi';
var z=x+y;

console.log(z);|
```

```
C:\Users\Admin\Desktop\NodeJs>node server
karthi
```

## Third-Party Modules;

Buffer;

Length;

```
buf= Buffer.alloc(12) ;
len=buf.write("karthi");
console.log(len);
```

```
C:\Users\Admin\Desktop\NodeJs>node Buffer
6
```

String;

```
let b1=Buffer.alloc(4, "HIII");

let b2=Buffer.alloc(13,'All I Am ')

let b3=Buffer.alloc(35,"Karthi from different Universe");
let bf=Buffer.concat([b1,b2,b3]);

console.log(bf.toString());|
```

```
C:\Users\Admin\Desktop\NodeJs>node Buffer
HIIIIAll I Am All Karthi from different UniverseKart
```

## Json;

```
C:\Users\Admin\Desktop\NodeJs>node Buffer
{
  type: 'Buffer',
  data: [
    72, 73, 73, 73, 65, 108, 108, 32, 73, 32,
    65, 109, 32, 65, 108, 108, 32, 75, 97, 114,
    116, 104, 105, 32, 102, 114, 111, 109, 32, 32,
    100, 105, 102, 102, 101, 114, 101, 110, 116, 32,
    85, 110, 105, 118, 101, 114, 115, 101, 75, 97,
    114, 116
  ]
}
```

## Concat;

```
let b1=Buffer.alloc(4, "HIII");

let b2=Buffer.alloc(13,'All I Am ')

let b3=Buffer.alloc(35,"Karthi from different Universe");
let bf=Buffer.concat([b1,b2,b3]);
```

```
C:\Users\Admin\Desktop\NodeJs>node Buffer
HIIIIAll I Am All Karthi from different UniverseKart
```

## Validator;

```
const validator=require('validator');

console.log(validator.isURL('https://chat.openai.com/'))//print:true;
```

```
C:\Users\Admin\Desktop\NodeJs>node Validator
true
```

## Nodemon;

```
> dev
> nodemon Url.js

[nodemon] 3.0.1
[nodemon] to restart at any time, enter `rs`
[nodemon] watching path(s): *.*
[nodemon] watching extensions: js,mjs,cjs,json
[nodemon] starting `node Url.js`
Server is listening on port 8011
```

## Callback concepts & Events;

### Blocking code (synchronous);

#### Sync;

```
C:\Users\Admin\Desktop\NodeJs>node Sync
The MERN stack is a popular technology stack used for building modern web applications. It consists of four main technologies: MongoDB, Express.js, React, and Node.js.
Each of these technologies serves a specific purpose in the development process. Here's an overview of each component in the MERN stack:
End of program
```

#### Async;

```
C:\Users\Admin\Desktop\NodeJs>node Async
End of program
The MERN stack is a popular technology stack used for building modern web applications. It consists of four main technologies: MongoDB, Express.js, React, and Node.js.
Each of these technologies serves a specific purpose in the development process. Here's an overview of each component in the MERN stack:

C:\Users\Admin\Desktop\NodeJs>
```

## Events;

#### Ev1-ex;

```
C:\Users\Admin\Desktop\NodeJs>node events
Hello! Karthi
```

**Ev2-ex;**

```
Welcome to Mern
Welcome to Mean
Welcome to Java
Welcome to Python
```

**Ev3-ex;**

[illegible]

## Event Maxlistener;

```
10 max event listener changed
11
```

## Ev-Removelistener;

```
C:\Users\Admin\Desktop\NodeJs>node Events
10
Max event listener changed
11
Listener removed
```

## Event using ON-OFF;

```
C:\Users\Admin\Desktop\NodeJs>node Events
Listener added
Sample event emitted
Listener removed
```

## FileSystem (fs);

Fs. (Readfile,writefile,appendfile,open,rename,mkdir,readdir,removedir,etc);

```
C:\Users\Admin\Desktop\NodeJs>node Fs
File contents: Hello, this is some content to write to the file.
File created and written.
Files in the current directory: [
  'Async.js',      'Buffer.js',
  'EscUsc.js',     'Events.js',
  'example.txt',   'Filesys.js',
  'Fndemo.js',     'Fs.js',
  'Import.js',     'myfirst.js',
  'newFile.txt',   'nodefn.js',
  'node_modules', 'package-lock.json',
  'package.json', 'Parsingquery.js',
  'Path.js',       'renamedFile.txt',
  'server.js',     'Stringifyquery.js',
  'Sync.js',       'target.txt',
  'Url.js',        'Util.js',
  'Validator.js'
]
Directory created.
File renamed.
Directory removed.
```

