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# **Getting started**

```
Install JSON Server
 npm install -g json-server
Create a db.json file with some data
 {
   "posts": [
     { "id": 1, "title": "json-server", "author": "typicode" }
   1,
   "comments": [
     { "id": 1, "body": "some comment", "postId": 1 }
   1,
   "profile": { "name": "typicode" }
 }
Start JSON Server
 json-server --watch db.json
Now if you go to http://localhost:3000/posts/1, you'll get
 { "id": 1, "title": "json-server", "author": "typicode" }
```

Also when doing requests, it's good to know that:

• If you make POST, PUT, PATCH or DELETE requests, changes will be automatically and safely saved to db.json using lowdb.

 Your request body JSON should be object enclosed, just like the GET output. (for example {"name": "Foobar"})

- Id values are not mutable. Any id value in the body of your PUT or PATCH request will be ignored. Only a value set in a POST request will be respected, but only if not already taken.
- A POST, PUT or PATCH request should include a Content-Type: application/json header to use the JSON in the request body. Otherwise it will return a 2XX status code, but without changes being made to the data.

# **Routes**

Based on the previous db.json file, here are all the default routes. You can also add other routes using --routes.

### **Plural routes**

```
GET /posts
GET /posts/1
POST /posts
PUT /posts/1
PATCH /posts/1
DELETE /posts/1
```

# Singular routes

```
GET /profile
POST /profile
PUT /profile
PATCH /profile
```

### **Filter**

```
Use . to access deep properties

GET /posts?title=json-server&author=typicode

GET /posts?id=1&id=2

GET /comments?author.name=typicode
```

# **Paginate**

Use \_page and optionally \_limit to paginate returned data.

In the Link headeryou'll get first, prev, next and last links.

```
GET /posts?_page=7
GET /posts?_page=78_limit=20
```

10 items are returned by default

### Sort

Add \_sort and \_order (ascending order by default)

```
GET /posts?_sort=views&_order=asc
GET /posts/1/comments?_sort=votes&_order=asc
```

For multiple fields, use the following format:

```
GET /posts?_sort=user,views&_order=desc,asc
```

#### Slice

Add \_start and \_end or \_limit (an X-Total-Count headerisincluded in the response)

```
GET /posts?_start=20&_end=30
GET /posts/1/comments?_start=20&_end=30
GET /posts/1/comments?_start=20&_limit=10
```

Works exactly as Array.slice (i.e. \_start is inclusive and \_end exclusive)

# **Operators**

```
Add _gte or _lte for getting a range
```

```
GET /posts?views gte=10&views lte=20
```

Add \_ne to exclude a value

```
GET /posts?id ne=1
```

```
Add _like to filter (RegExp supported)
```

```
GET /posts?title_like=server
```

### **Full-text search**

Add q

GET /posts?q=internet

# Relationships

To include children resources, add \_embed

```
GET /posts?_embed=comments
GET /posts/1?_embed=comments
```

To include parent resource, add \_expand

```
GET /comments?_expand=post
GET /comments/1?_expand=post
```

To get or create nested resources (by default one level, add custom routes for more)

```
GET /posts/1/comments
POST /posts/1/comments
```

### **Database**

GET /db

# Homepage

Returns default index file or serves ./public directory

GET /

# **Extras**

#### Static file server

mkdir public

You can use JSON Server to serve your HTML, JS and CSS, simply create a ./public directory or use --static to set a different static files directory.

```
echo 'hello world' > public/index.html
json-server db.json

json-server db.json --static ./some-other-dir
```

# Alternative port

You can start JSON Server on other ports with the --port flag:

```
$ json-server --watch db.json --port 3004
```

# Access from anywhere

You can access your fake API from anywhere using CORS and JSONP.

#### Remote schema

You can load remote schemas.

```
$ json-server http://example.com/file.json
$ json-server http://jsonplaceholder.typicode.com/db
```

#### Generate random data

Using JS instead of a JSON file, you can create data programmatically.

```
// index.js
module.exports = () => {
  const data = { users: [] }
```

```
// Create 1000 users
for (let i = 0; i < 1000; i++) {
   data.users.push({ id: i, name: `user${i}` })
}
return data
}

$ json-server index.js</pre>
```

Tip use modules like Faker, Casual, Chance or JSON Schema Faker.

#### **HTTPS**

There are many ways to set up SSL in development. One simple way is to use hotel.

### Add custom routes

Create a routes.json file. Pay attention to start every route with /.

```
{
   "/api/*": "/$1",
   "/:resource/:id/show": "/:resource/:id",
   "/posts/:category": "/posts?category=:category",
   "/articles\\?id=:id": "/posts/:id"
}
```

Start JSON Server with --routes option.

```
json-server db.json --routes routes.json
```

Now you can access resources using additional routes.

```
/api/posts # → /posts
/api/posts/1 # → /posts/1
/posts/1/show # → /posts/1
/posts/javascript # → /posts?category=javascript
/articles?id=1 # → /posts/1
```

## Add middlewares

You can add your middlewares from the CLI using --middlewares option:

```
// hello.js
module.exports = (req, res, next) => {
   res.header('X-Hello', 'World')
   next()
}

json-server db.json --middlewares ./hello.js
json-server db.json --middlewares ./first.js ./second.js
```

# **CLI** usage

```
Examples:
    json-server db.json
    json-server file.js
    json-server http://example.com/db.json
https://github.com/typicode/json-server
```

You can also set options in a json-server.json configuration file.

```
{
   "port": 3000
}
```

### Module

If you need to add authentication, validation, or **any behavior**, you can use the project as a module in combination with other Express middlewares.

### Simple example

```
$ npm install json-server --save-dev

// server.js
const jsonServer = require('json-server')
const server = jsonServer.create()
const router = jsonServer.router('db.json')
const middlewares = jsonServer.defaults()

server.use(middlewares)
server.use(router)
server.listen(3000, () => {
   console.log('JSON Server is running')
})
```

```
$ node server.js
```

The path you provide to the <code>jsonServer.router</code> function is relative to the directory from where you launch your node process. If you run the above code from another directory, it's better to use an absolute path:

```
const path = require('path')
const router = jsonServer.router(path.join(__dirname, 'db.json'))
```

For an in-memory database, simply pass an object to <code>jsonServer.router()</code>.

To add custom options (eg. foreginKeySuffix ) pass in an object as the second argument to jsonServer.router('db.json', { foreginKeySuffix: '\_id' }).

Please note also that jsonServer.router() can be used in existing Express projects.

### **Custom routes example**

Let's say you want a route that echoes query parameters and another one that set a timestamp on every resource created.

```
const jsonServer = require('json-server')
const server = jsonServer.create()
const router = jsonServer.router('db.json')
const middlewares = jsonServer.defaults()

// Set default middlewares (logger, static, cors and no-cache)
server.use(middlewares)

// Add custom routes before JSON Server router
server.get('/echo', (req, res) => {
    res.jsonp(req.query)
})

// To handle POST, PUT and PATCH you need to use a body-parser
// You can use the one used by JSON Server
server.use(jsonServer.bodyParser)
```

```
server.use((req, res, next) => {
  if (req.method === 'POST') {
    req.body.createdAt = Date.now()
  }
  // Continue to JSON Server router
  next()
})

// Use default router
server.use(router)
server.listen(3000, () => {
  console.log('JSON Server is running')
})
```

## Access control example

```
const jsonServer = require('json-server')
const server = jsonServer.create()
const router = jsonServer.router('db.json')
const middlewares = jsonServer.defaults()
server.use(middlewares)
server.use((req, res, next) => {
if (isAuthorized(req)) { // add your authorization logic here
   next() // continue to JSON Server router
 } else {
   res.sendStatus(401)
}
})
server.use(router)
server.listen(3000, () => {
  console.log('JSON Server is running')
})
```

### **Custom output example**

To modify responses, overwrite router.render method:

```
// In this example, returned resources will be wrapped in a body pro
router.render = (req, res) => {
   res.jsonp({
     body: res.locals.data
   })
}
```

You can set your own status code for the response:

```
// In this example we simulate a server side error response
router.render = (req, res) => {
  res.status(500).jsonp({
    error: "error message here"
  })
}
```

### Rewriter example

```
To add rewrite rules, use jsonServer.rewriter():

// Add this before server.use(router)
server.use(jsonServer.rewriter({
    '/api/*': '/$1',
    '/blog/:resource/:id/show': '/:resource/:id'
}))
```

## Mounting JSON Server on another endpoint example

Alternatively, you can also mount the router on /api.

```
server.use('/api', router)
```

API

```
jsonServer.create()
```

Returns an Express server.

# jsonServer.defaults([options])

Returns middlewares used by JSON Server.

- options
  - static path to static files
  - logger enable logger middleware (default: true)
  - bodyParser enable body-parser middleware (default: true)
  - noCors disable CORS (default: false)
  - readOnly accept only GET requests (default: false)

```
jsonServer.router([path|object], [options])
```

Returns JSON Server router.

• options (see CLI usage)

### **Deployment**

You can deploy JSON Server. For example, **JSONPlaceholder** is an online fake API powered by JSON Server and running on Heroku.

# Links

#### Video

Creating Demo APIs with json-server on egghead.io

### **Articles**

- Node Module Of The Week json-server
- ng-admin: Add an AngularJS admin GUI to any RESTful API
- Fast prototyping using Restangular and Json-server
- Create a Mock REST API in Seconds for Prototyping your Frontend
- No API? No Problem! Rapid Development via Mock APIs
- Zero Code REST With json-server

# **Third-party tools**

Grunt JSON Server

- Docker JSON Server
- JSON Server GUI
- JSON file generator
- JSON Server extension

# License

MIT

**Supporters** 

# Keywords

JSON server fake REST API prototyping mock mocking test testing rest data dummy sandbox

#### Install

> npm i json-server

### Repository

• github.com/typicode/json-server

### Homepage

@ github.com/typicode/json-server

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