config.json

```json
{
    "apiKey": "abcdef_123456",
    "showSystemsExpert": false,
    "supportedLanguages": [
        "cpp",
        "csharp",
        "go",
        "java",
        "javascript",
        "python",
        "swift"
    ],
    "version": {
        "number": 0,
        "releaseDate": "2020-02-20"
    }
}
```

config.yaml

```yaml
apiKey: abcdef_123456
showSystemsExpert: false
supportedLanguages:
- cpp
- csharp
- go
- java
- javascript
- python
- swift
version:
  number: 0
  releaseDate: '2020-02-20'
```

server.js

```javascript
const fs = require('fs');
const express = require('express');
const app = express();

const staticConfig = JSON.parse(fs.readFileSync('static_config.json

app.listen(3000, () => console.log('Listening on port 3000.'));

app.get('/static/new_feature.html', function(req, res) {
    if (!staticConfig.newFeatureLaunched) {
        res.status(401).send('Unauthorized.\n');
        return;
    }
    res.send('<html>Hello World!</html>\n');
});
```

```
~/Documents/Content/Design_Fundamentals/Examples/configuration — -bash
Clements-MBP:configuration clementmihailescu$ node server.js
```

```
~/Documents/Content/Design_Fundamentals/Examples/configuration — -bash
Clements-MBP:configuration clementmihailescu$ curl localhost:3000/static/new_feature.html
```

{} static_config.json ✕   JS server.js

{} static_config.json > 🔗 newFeatureLaunched

```json
1    {
2        "newFeatureLaunched": false
3    }
```

```
[Clements-MBP:configuration clementmihailescu$ node server.js
Listening on port 3000.
^C
[Clements-MBP:configuration clementmihailescu$ node server.js
Listening on port 3000.
```

configuration — node server.js — 93×25
~/Documents/Content/Design_Fundamentals/Examples/configuration — node server.js

configuration — -bash — 93×23
~/Documents/Content/Design_Fundamentals/Examples/configuration — -bash

```
[Clements-MBP:configuration clementmihailescu$ curl localhost:3000/static/new_feature.html
Unauthorized.
[Clements-MBP:configuration clementmihailescu$ curl localhost:3000/static/new_feature.html
Unauthorized.
[Clements-MBP:configuration clementmihailescu$ curl localhost:3000/static/new_feature.html
<html>Hello World!</html>
Clements-MBP:configuration clementmihailescu$
```

3 Prerequisites ▲

JSON

A file format heavily used in APIs and configuration. Stands for **J**ava**S**cript **O**bject **N**otation. Example:

```
{
    "version": 1.0,
    "name": "AlgoExpert Configuration"
}
```

YAML

A file format mostly used in configuration. Example:

```
version: 1.0
name: AlgoExpert Configuration
```

Key-Value Store

A Key-Value Store is a flexible NoSQL database that's often used for caching and dynamic configuration. Popular options include DynamoDB, Etcd, Redis, and ZooKeeper.

1 Key Term ▲

Configuration

A set of parameters or constants that are critical to a system. Configuration is typically written in **JSON** or **YAML** and can be either **static**, meaning that it's hard-coded in and shipped with your system's application code (like frontend code, for instance), or **dynamic**, meaning that it lives outside of your system's application code.