

Advanced Node.js Cheatsheet

Quick Reference for Advanced Users

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1. Advanced Modules

- `require('module').createRequire()`: Create a custom require function
- `import()`: Dynamic import for ESmodules

2. Performance Tuning

- `node --prof`: Generate V8 profiling output
- `node --trace-opt`: Trace V8 optimizations

3. Cluster and Worker Threads

- `cluster.fork()`: Fork a new worker process
- `new Worker()`: Create a new worker thread

4. Advanced Asynchronous Patterns

- `EventEmitter`: Custom event handling
- `AsyncLocalStorage`: Manage async state

5. Security Practices

- `helmet`: Secure Express apps by setting HTTP headers
- `bcrypt`: Hash passwords securely

6. Advanced Debugging

- `node --inspect`: Enable inspector agent
- `node --trace-deprecation`: Show deprecated calls

7. Microservices and APIs

- `gRPC`: High-performance RPC framework
- `GraphQL`: Query language for APIs

8. Real-time Applications

- `Socket.IO`: Real-time bidirectional event-based communication
- `WebSockets`: Full-duplex communication channels

9. Deployment Strategies

- `Docker`: Containerize applications
- `Kubernetes`: Orchestrate containerized applications

