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Pipeline Steps

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Console Output

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```
Started by GitHub push by raghumn1999
[Pipeline] Start of Pipeline
[Pipeline] node
Running on Jenkins in /var/jenkins_home/workspace/CI_nodejs_app
[Pipeline] {
  [Pipeline] ws
Running in /var/jenkins_home/nodejs-app
[Pipeline] {
```

```
[Pipeline] stage
[Pipeline] { (Checkout)
[Pipeline] checkout
The recommended git tool is: NONE
No credentials specified
> git rev-parse --resolve-git-dir /var/jenkins home/nodejs-app/.git #
timeout=10
Fetching changes from the remote Git repository
> git config remote.origin.url
https://github.com/raghumn1999/vananam assignment.git # timeout=10
Fetching upstream changes from
https://github.com/raghumn1999/vananam assignment.git
> git --version # timeout=10
> git --version # 'git version 2.39.5'
> git fetch --tags --force --progress --
https://github.com/raghumn1999/vananam assignment.git
+refs/heads/*:refs/remotes/origin/* # timeout=10
> git rev-parse refs/remotes/origin/main^{commit} # timeout=10
Checking out Revision 1b24e8d0d92e0dd4a6e18dd96bc26aaba096ea2a
(refs/remotes/origin/main)
> git config core.sparsecheckout # timeout=10
> git checkout -f 1b24e8d0d92e0dd4a6e18dd96bc26aaba096ea2a # timeout=10
Commit message: "Updated readme file"
> git rev-list --no-walk 0be8203220c6c7b6581a56a02ba0034842c0b9fc #
timeout=10
[Pipeline] }
[Pipeline] // stage
[Pipeline] stage
[Pipeline] { (Install Dependencies)
[Pipeline] dir
Running in /var/jenkins home/nodejs-app/express
[Pipeline] {
[Pipeline] sh
+ set +x
Now using node v24.5.0 (npm v11.5.1)
up to date, audited 387 packages in 4s
66 packages are looking for funding
  run `npm fund` for details
found 0 vulnerabilities
```

172.17.0.1:9090/job/CI_nodejs_app/40/console

```
[Pipeline] }
[Pipeline] // dir
[Pipeline] }
[Pipeline] // stage
[Pipeline] stage
[Pipeline] { (Run Lint)
[Pipeline] dir
Running in /var/jenkins home/nodejs-app/express
[Pipeline] {
[Pipeline] sh
+ set +x
Now using node v24.5.0 (npm v11.5.1)
> express@5.1.0 lint
> eslint .
[Pipeline] }
[Pipeline] // dir
[Pipeline] }
[Pipeline] // stage
[Pipeline] stage
[Pipeline] { (Run Tests)
[Pipeline] dir
Running in /var/jenkins home/nodejs-app/express
[Pipeline] {
[Pipeline] sh
+ set +x
Now using node v24.5.0 (npm v11.5.1)
> express@5.1.0 test
> mocha --require test/support/env --reporter spec --check-leaks test/
test/acceptance/
```

Route

- ✓ should work without handlers
- ightharpoonup should not stack overflow with a large sync stack (179ms)
- .all
 - ✓ should add handler
 - ✓ should handle VERBS
 - ✓ should stack

. VERB

- ✓ should support .get
- ✓ should limit to just .VERB
- ✓ should allow fallthrough

errors

- ✓ should handle errors via arity 4 functions
- ✓ should handle throw
- ✓ should handle throwing inside error handlers
- ✓ should handle throw in .all
- ✓ should handle single error handler

Router

- ✓ should return a function with router methods
- ✓ should support .use of other routers
- ✓ should support dynamic routes
- ✓ should handle blank URL
- ✓ should handle missing URL
- ✓ handle missing method
- ✓ should not stack overflow with many registered routes (588ms)
- ✓ should not stack overflow with a large sync route stack (350ms)
- ightharpoonup should not stack overflow with a large sync middleware stack (127ms)

.handle

✓ should dispatch

.multiple callbacks

- ✓ should throw if a callback is null
- ✓ should throw if a callback is undefined
- ✓ should throw if a callback is not a function
- ✓ should not throw if all callbacks are functions

error

- ✓ should skip non error middleware
- ✓ should handle throwing inside routes with params
- ✓ should handle throwing in handler after async param
- ✓ should handle throwing inside error handlers

FQDN

- ✓ should not obscure FODNs
- ✓ should ignore FQDN in search
- ✓ should ignore FQDN in path
- ✓ should adjust FQDN req.url
- ✓ should adjust FQDN reg.url with multiple handlers
- ✓ should adjust FQDN req.url with multiple routed handlers

.all

✓ should support using .all to capture all http verbs

.use

- ✓ should require middleware
- ✓ should reject string as middleware
- ✓ should reject number as middleware
- ✓ should reject null as middleware
- ✓ should reject Date as middleware
- ✓ should be called for any URL
- ✓ should accept array of middleware

.param

- ✓ should require function
- ✓ should reject non-function
- ✓ should call param function when routing VERBS
- ✓ should call param function when routing middleware
- ✓ should only call once per request
- ✓ should call when values differ

parallel requests

✓ should not mix requests (51ms)

app.all()

- ✓ should add a router per method (63ms)
- ✓ should run the callback for a method just once

app

- .engine(ext, fn)
 - ✓ should map a template engine
 - ✓ should throw when the callback is missing
 - ✓ should work without leading "."
 - ✓ should work "view engine" setting
 - ✓ should work "view engine" with leading "."

HEAD

- ✓ should default to GET
- ✓ should output the same headers as GET requests

app.head()

✓ should override

app

- ✓ should inherit from event emitter
- ✓ should be callable
- ✓ should 404 without routes

```
app.parent

✓ should return the parent when mounted
app.mountpath

✓ should return the mounted path

app.path()

✓ should return the canonical
in development

✓ should disable "view cache"

in production

✓ should enable "view cache"

without NODE ENV

✓ should default to development

app.listen()

✓ should wrap with an HTTP server

✓ should callback on HTTP server errors

✓ accepts port + hostname + backlog + callback

✓ accepts just a callback (no args)
  ✓ server.address() gives a { address, port, family } object
app
  .locals
    ✓ should default object with null prototype
    .settings

✓ should contain app settings
OPTIONS

✓ should default to the routes defined

✓ should only include each method once

✓ should not be affected by app.all
  ✓ should not respond if the path is not defined
  ✓ should forward requests down the middleware chain
 when error occurs in response handler

✓ should pass error to callback

app.options()
```

✓ should override the default behavior

```
app
```

- .param(names, fn)
 - ✓ should map the array
- .param(name, fn)
 - ✓ should map logic for a single param
 - ✓ should only call once per request
 - ✓ should call when values differ
 - ✓ should support altering reg.params across routes
 - ✓ should not invoke without route handler
 - ✓ should work with encoded values
 - ✓ should catch thrown error
 - ✓ should catch thrown secondary error
 - ✓ should defer to next route
 - ✓ should defer all the param routes
 - ✓ should not call when values differ on error
 - ✓ should call when values differ when using "next"

app

.render(name, fn)

- ✓ should support absolute paths
- ✓ should support absolute paths with "view engine"
- ✓ should expose app.locals
- ✓ should support index.<engine>
- ✓ should handle render error throws

when the file does not exist

✓ should provide a helpful error

when an error occurs

✓ should invoke the callback

when an extension is given

✓ should render the template

when "view engine" is given

✓ should render the template

when "views" is given

ightharpoonup should lookup the file in the path

when array of paths

- ✓ should lookup the file in the path
- ✓ should lookup in later paths until found
- ✓ should error if file does not exist

when a "view" constructor is given

ightharpoonup should create an instance of it

caching

- ✓ should always lookup view without cache
- ✓ should cache with "view cache" setting

.render(name, options, fn)

- ✓ should render the template
- ✓ should expose app.locals
- ✓ should give precedence to app.render() locals caching
 - ✓ should cache with cache option

app

.request

- ✓ should extend the request prototype
- ✓ should only extend for the referenced app
- ✓ should inherit to sub apps
- ✓ should allow sub app to override
- ✓ should not pollute parent app

app

.response

- ✓ should extend the response prototype
- ✓ should only extend for the referenced app
- ✓ should inherit to sub apps
- ✓ should allow sub app to override
- ✓ should not pollute parent app

app.route

- ✓ should return a new route
- ✓ should all .VERB after .all
- ✓ should support dynamic routes
- ightharpoonup should not error on empty routes

promise support

- ✓ should pass rejected promise value
- ✓ should pass rejected promise without value
- ✓ should ignore resolved promise

error handling

- ✓ should pass rejected promise value
- ✓ should pass rejected promise without value
- ✓ should ignore resolved promise

app.router

- ✓ should restore req.params after leaving router
- ✓ should be .use()able

- ✓ should allow literal "."
- ✓ should allow rewriting of the url
- ✓ should run in order added
- ✓ should be chainable
- ✓ should not use disposed router/middleware
 methods
 - ✓ should include ACL
 - ✓ should reject numbers for app.acl
 - ✓ should include BIND
 - ✓ should reject numbers for app.bind
 - ✓ should include CHECKOUT
 - ✓ should reject numbers for app.checkout
 - ✓ should include COPY
 - ✓ should reject numbers for app.copy
 - ✓ should include DELETE
 - ✓ should reject numbers for app.delete
 - ✓ should include GET
 - ✓ should reject numbers for app.get
 - ✓ should include HEAD
 - ✓ should reject numbers for app.head
 - ✓ should include LINK
 - ✓ should reject numbers for app.link
 - ✓ should include LOCK
 - ✓ should reject numbers for app.lock
 - ✓ should include M-SEARCH
 - ✓ should reject numbers for app.m-search
 - ✓ should include MERGE
 - ✓ should reject numbers for app.merge
 - ✓ should include MKACTIVITY
 - ✓ should reject numbers for app.mkactivity
 - ✓ should include MKCALENDAR
 - ✓ should reject numbers for app.mkcalendar
 - ✓ should include MKCOL
 - ✓ should reject numbers for app.mkcol
 - ✓ should include MOVE
 - ✓ should reject numbers for app.move
 - ✓ should include NOTIFY
 - ✓ should reject numbers for app.notify
 - ✓ should include OPTIONS
 - ✓ should reject numbers for app.options
 - ✓ should include PATCH
 - ✓ should reject numbers for app.patch

- ✓ should include POST
- ✓ should reject numbers for app.post
- ✓ should include PROPFIND
- ✓ should reject numbers for app.propfind
- ✓ should include PROPPATCH
- ✓ should reject numbers for app.proppatch
- ✓ should include PURGE
- ✓ should reject numbers for app.purge
- ✓ should include PUT
- ✓ should reject numbers for app.put
- ✓ should include QUERY
- ✓ should reject numbers for app.query
- ✓ should include REBIND
- ✓ should reject numbers for app.rebind
- ✓ should include REPORT
- ✓ should reject numbers for app.report
- ✓ should include SEARCH
- ✓ should reject numbers for app.search
- ✓ should include SOURCE
- ✓ should reject numbers for app.source
- ✓ should include SUBSCRIBE
- ✓ should reject numbers for app.subscribe
- ✓ should include TRACE
- ✓ should reject numbers for app.trace
- ✓ should include UNBIND
- ✓ should reject numbers for app.unbind
- ✓ should include UNLINK
- ✓ should reject numbers for app.unlink
- ✓ should include UNLOCK
- ✓ should reject numbers for app.unlock
- ✓ should include UNSUBSCRIBE
- ✓ should reject numbers for app.unsubscribe
- ✓ should re-route when method is altered

decode params

- ✓ should decode correct params
- ✓ should not accept params in malformed paths
- ✓ should not decode spaces
- ✓ should work with unicode

when given a regexp

- ✓ should match the pathname only
- ✓ should populate reg.params with the captures
- ✓ should populate reg.params with named captures

- ✓ should ensure regexp matches path prefix case sensitivity
 - ✓ should be disabled by default

when "case sensitive routing" is enabled

- ✓ should match identical casing
- ✓ should not match otherwise

params

- ✓ should overwrite existing req.params by default
- ✓ should allow merging existing req.params
- ✓ should use params from router
- ✓ should merge numeric indices reg.params
- ✓ should merge numeric indices reg.params when more in parent
- ✓ should merge numeric indices req.params when parent has same number
- ✓ should ignore invalid incoming req.params
- ✓ should restore req.params

trailing slashes

- ✓ should be optional by default
- when "strict routing" is enabled
 - ✓ should match trailing slashes
 - ✓ should pass-though middleware
 - ✓ should pass-though mounted middleware
 - ✓ should match no slashes
 - ✓ should match middleware when omitting the trailing slash
 - ✓ should match middleware
 - ✓ should match middleware when adding the trailing slash
 - ✓ should fail when omitting the trailing slash
 - ✓ should fail when adding the trailing slash

:name

- ✓ should denote a capture group
- ✓ should match a single segment only
- ✓ should allow several capture groups
- ✓ should work following a partial capture group
- ✓ should work inside literal parenthesis
- ✓ should work in array of paths

:name?

- ✓ should denote an optional capture group
- ✓ should populate the capture group

:name*

- ✓ should match one segment
- ✓ should match many segments
- ✓ should match zero segments

:name+

- ✓ should match one segment
- ✓ should match many segments
- ✓ should not match zero segments
- .:name
 - ✓ should denote a format
- .:name?
 - ✓ should denote an optional format
- when next() is called
 - ✓ should continue lookup

when next("route") is called

✓ should jump to next route

when next("router") is called

✓ should jump out of router

when next(err) is called

- ✓ should break out of app.router
- ✓ should call handler in same route, if exists

promise support

- ✓ should pass rejected promise value
- ✓ should pass rejected promise without value
- ✓ should ignore resolved promise
- error handling
 - ✓ should pass rejected promise value
 - ✓ should pass rejected promise without value
 - ✓ should ignore resolved promise

app

- .VERB()
 - ✓ should not get invoked without error handler on error
- $\ensuremath{\checkmark}$ should only call an error handling routing callback when an error is propagated

app

- ✓ should emit "mount" when mounted
- .use(app)
 - ✓ should mount the app
 - ✓ should support mount-points
 - ✓ should set the child's .parent
 - ✓ should support dynamic routes
 - ✓ should support mounted app anywhere
- .use(middleware)
 - ✓ should accept multiple arguments
 - ✓ should invoke middleware for all requests

- ✓ should accept array of middleware
- ✓ should accept multiple arrays of middleware
- ✓ should accept nested arrays of middleware

.use(path, middleware)

- ✓ should require middleware
- ✓ should reject string as middleware
- ✓ should reject number as middleware
- ✓ should reject null as middleware
- ✓ should reject Date as middleware
- ✓ should strip path from req.url
- ✓ should accept multiple arguments
- ✓ should invoke middleware for all requests starting with path
- ✓ should work if path has trailing slash
- ✓ should accept array of middleware
- ✓ should accept multiple arrays of middleware
- ✓ should accept nested arrays of middleware
- ✓ should support array of paths
- ✓ should support array of paths with middleware array
- ✓ should support regexp path
- ✓ should support empty string path

config

.set()

- ✓ should set a value
- ✓ should set prototype values
- ✓ should return the app
- ✓ should return the app when undefined
- ✓ should return set value
- ✓ should return undefined for prototype values

"etaq"

- ✓ should throw on bad value
- ✓ should set "etag fn"

"trust proxy"

✓ should set "trust proxy fn"

.aet()

- ✓ should return undefined when unset
- ✓ should return undefined for prototype values
- ✓ should otherwise return the value

when mounted

- ✓ should default to the parent app
- ✓ should given precedence to the child
- ✓ should inherit "trust proxy" setting

- ✓ should prefer child "trust proxy" setting
- .enable()
 - ✓ should set the value to true
 - ✓ should set prototype values
- .disable()
 - ✓ should set the value to false
 - ✓ should set prototype values
- .enabled()
 - ✓ should default to false
 - ✓ should return true when set
 - ✓ should default to false for prototype values
- .disabled()
 - ✓ should default to true
 - ✓ should return false when set
 - ✓ should default to true for prototype values

exports

- ✓ should expose Router
- ✓ should expose json middleware
- ✓ should expose raw middleware
- ✓ should expose static middleware
- ✓ should expose text middleware
- ✓ should expose urlencoded middleware
- ✓ should expose the application prototype
- ✓ should expose the request prototype
- ✓ should expose the response prototype
- ✓ should permit modifying the .application prototype
- ✓ should permit modifying the .request prototype
- ✓ should permit modifying the .response prototype

express.json()

- ✓ should parse JSON
- ✓ should handle Content-Length: 0
- ✓ should handle empty message-body
- ✓ should handle no message-body
- ✓ should 400 when only whitespace
- ✓ should 400 when invalid content-length
- ✓ should handle duplicated middleware

when JSON is invalid

- ✓ should 400 for bad token
- ✓ should 400 for incomplete
- ✓ should include original body on error object

with limit option

- ✓ should 413 when over limit with Content-Length
- ✓ should 413 when over limit with chunked encoding
- ✓ should 413 when inflated body over limit
- ✓ should accept number of bytes
- ✓ should not change when options altered
- ✓ should not hang response
- ✓ should not error when inflating

with inflate option

when false

✓ should not accept content-encoding

when true

✓ should accept content-encoding

with strict option

when undefined

✓ should 400 on primitives

when false

✓ should parse primitives

when true

- ✓ should not parse primitives
- ✓ should not parse primitives with leading whitespaces
- ✓ should allow leading whitespaces in JSON
- ✓ should include correct message in stack trace

with type option

when "application/vnd.api+json"

- ✓ should parse JSON for custom type
- ✓ should ignore standard type

when ["application/json", "application/vnd.api+json"]

- ✓ should parse JSON for "application/json"
- ✓ should parse JSON for "application/vnd.api+json"
- ✓ should ignore "application/x-json"

when a function

- ✓ should parse when truthy value returned
- ✓ should work without content-type
- ✓ should not invoke without a body

with verify option

- ✓ should assert value if function
- ✓ should error from verify
- ✓ should allow custom codes
- ✓ should allow custom type
- ✓ should include original body on error object
- ✓ should allow pass-through

- ✓ should work with different charsets
- ✓ should 415 on unknown charset prior to verify async local storage

- ✓ should persist store
- ✓ should persist store when unmatched content-type
- ✓ should persist store when inflated
- ✓ should persist store when inflate error
- ✓ should persist store when parse error
- ✓ should persist store when limit exceeded

charset

- ✓ should parse utf-8
- ✓ should parse utf-16
- ✓ should parse when content-length != char length
- ✓ should default to utf-8
- ✓ should fail on unknown charset

encoding

- ✓ should parse without encoding
- ✓ should support identity encoding
- ✓ should support gzip encoding
- ✓ should support deflate encoding
- ✓ should be case-insensitive
- ✓ should 415 on unknown encoding
- ✓ should 400 on malformed encoding
- ✓ should 413 when inflated value exceeds limit

express.raw()

- ✓ should parse application/octet-stream
- ✓ should 400 when invalid content-length
- ✓ should handle Content-Length: 0
- ✓ should handle empty message-body
- ✓ should handle duplicated middleware

with limit option

- ✓ should 413 when over limit with Content-Length
- ✓ should 413 when over limit with chunked encoding
- ✓ should 413 when inflated body over limit
- ✓ should accept number of bytes
- ✓ should not change when options altered
- ✓ should not hang response
- ✓ should not error when inflating

with inflate option

when false

✓ should not accept content-encoding

when true

✓ should accept content-encoding

with type option

when "application/vnd+octets"

- ✓ should parse for custom type
- ✓ should ignore standard type

when ["application/octet-stream", "application/vnd+octets"]

- ✓ should parse "application/octet-stream"
- ✓ should parse "application/vnd+octets"
- ✓ should ignore "application/x-foo"

when a function

- ✓ should parse when truthy value returned
- ✓ should work without content-type
- ✓ should not invoke without a body

with verify option

- ✓ should assert value is function
- ✓ should error from verify
- ✓ should allow custom codes
- ✓ should allow pass-through

async local storage

- ✓ should persist store
- ✓ should persist store when unmatched content-type
- ✓ should persist store when inflated
- ✓ should persist store when inflate error
- ✓ should persist store when limit exceeded

charset

✓ should ignore charset

encoding

- ✓ should parse without encoding
- ✓ should support identity encoding
- ✓ should support gzip encoding
- ✓ should support deflate encoding
- ✓ should be case-insensitive
- ✓ should 415 on unknown encoding

express.static()

basic operations

- ✓ should require root path
- ✓ should require root path to be string
- ✓ should serve static files
- ✓ should support nesting
- ✓ should set Content-Type

- ✓ should set Last-Modified
- ✓ should default max-age=0
- ✓ should support urlencoded pathnames
- ✓ should not choke on auth-looking URL
- ✓ should support index.html
- ✓ should support ../
- ✓ should support HEAD
- ✓ should skip POST requests
- ✓ should support conditional requests
- ✓ should support precondition checks
- ✓ should serve zero-length files
- ✓ should ignore hidden files

current dir

✓ should be served with "."

acceptRanges

when false

- ✓ should not include Accept-Ranges
- ✓ should ignore Rage request header

when true

- ✓ should include Accept-Ranges
- ✓ should obey Rage request header

cacheControl

when false

- ✓ should not include Cache-Control
- ✓ should ignore maxAge

when true

✓ should include Cache-Control

extensions

- ✓ should be not be enabled by default
- ✓ should be configurable
- ✓ should support disabling extensions
- ✓ should support fallbacks
- ✓ should 404 if nothing found

fallthrough

✓ should default to true

when true

- ✓ should fall-through when OPTIONS request
- ✓ should fall-through when URL malformed
- ✓ should fall-through when traversing past root
- ✓ should fall-through when URL too long

with redirect: true

✓ should fall-through when directory

- ✓ should redirect when directory without slash with redirect: false
 - ✓ should fall-through when directory
- ✓ should fall-through when directory without slash
 when false
 - ✓ should 405 when OPTIONS request
 - ✓ should 400 when URL malformed
 - ✓ should 403 when traversing past root
 - ✓ should 404 when URL too long

with redirect: true

- ✓ should 404 when directory
- ✓ should redirect when directory without slash

with redirect: false

- ✓ should 404 when directory
- ✓ should 404 when directory without slash

hidden files

- ✓ should be served when dotfiles: "allow" is given immutable
 - ✓ should default to false
 - ✓ should set immutable directive in Cache-Control

lastModified

when false

✓ should not include Last-Modified

when true

✓ should include Last-Modified

maxAge

- ✓ should accept string
- ✓ should be reasonable when infinite

redirect

- ✓ should redirect directories
- ✓ should include HTML link
- ✓ should redirect directories with query string
- ✓ should not redirect to protocol-relative locations
- ✓ should ensure redirect URL is properly encoded
- ✓ should respond with default Content-Security-Policy
- ✓ should not redirect incorrectly

when false

✓ should disable redirect

setHeaders

- ✓ should reject non-functions
- ✓ should get called when sending file
- ✓ should not get called on 404

✓ should not get called on redirect

when traversing past root

- ✓ should catch urlencoded ../
- ✓ should not allow root path disclosure

when request has "Range" header

- ✓ should support byte ranges
- ✓ should be inclusive
- ✓ should set Content-Range
- ✓ should support -n
- ✓ should support n-
- ✓ should respond with 206 "Partial Content"
- ✓ should set Content-Length to the # of octets transferred

when last-byte-pos of the range is greater than current length

- ✓ is taken to be equal to one less than the current length
- ✓ should adapt the Content-Length accordingly

when the first- byte-pos of the range is greater than the current length

- ✓ should respond with 416
- $\ensuremath{\checkmark}$ should include a Content-Range header of complete length when syntactically invalid
 - ✓ should respond with 200 and the entire contents

when index at mount point

✓ should redirect correctly

when mounted

- ✓ should redirect relative to the originalUrl
- ✓ should not choke on auth-looking URL

when mounted "root" as a file

- ✓ should load the file when on trailing slash
- ✓ should 404 when trailing slash

when responding non-2xx or 304

✓ should not alter the status

when index file serving disabled

- ✓ should next() on directory
- ✓ should redirect to trailing slash
- ✓ should next() on mount point
- ✓ should redirect to trailing slash mount point

express.text()

- ✓ should parse text/plain
- ✓ should 400 when invalid content-length
- ✓ should handle Content-Length: 0
- ✓ should handle empty message-body

- ✓ should handle duplicated middleware
 with defaultCharset option
 - ✓ should change default charset
 - ✓ should honor content-type charset

with limit option

- ✓ should 413 when over limit with Content-Length
- ✓ should 413 when over limit with chunked encoding
- ✓ should 413 when inflated body over limit
- ✓ should accept number of bytes
- ✓ should not change when options altered
- ✓ should not hang response
- ✓ should not error when inflating (104ms)

with inflate option

when false

✓ should not accept content-encoding

when true

✓ should accept content-encoding

with type option

when "text/html"

- ✓ should parse for custom type
- ✓ should ignore standard type

when ["text/html", "text/plain"]

- ✓ should parse "text/html"
- ✓ should parse "text/plain"
- ✓ should ignore "text/xml"

when a function

- ✓ should parse when truthy value returned
- ✓ should work without content-type
- ✓ should not invoke without a body

with verify option

- ✓ should assert value is function
- ✓ should error from verify
- ✓ should allow custom codes
- ✓ should allow pass-through
- $\scriptstyle \hspace*{-0.5em} \hspace*{-0.5$

async local storage

- ✓ should persist store
- ✓ should persist store when unmatched content-type
- ✓ should persist store when inflated
- ✓ should persist store when inflate error
- ✓ should persist store when limit exceeded

charset

- ✓ should parse utf-8
- ✓ should parse codepage charsets
- ✓ should parse when content-length != char length
- ✓ should default to utf-8.
- ✓ should 415 on unknown charset

encoding

- ✓ should parse without encoding
- ✓ should support identity encoding
- ✓ should support gzip encoding
- ✓ should support deflate encoding
- ✓ should be case-insensitive
- ✓ should 415 on unknown encoding

express.urlencoded()

- ✓ should parse x-www-form-urlencoded
- ✓ should 400 when invalid content-length
- ✓ should handle Content-Length: 0
- ✓ should handle empty message-body
- ✓ should handle duplicated middleware
- ✓ should not parse extended syntax

with extended option

when false

- ✓ should not parse extended syntax
- ✓ should parse multiple key instances

when true

- ✓ should parse multiple key instances
- ✓ should parse extended syntax
- ✓ should parse parameters with dots
- ✓ should parse fully-encoded extended syntax
- ✓ should parse array index notation
- ✓ should parse array index notation with large array
- ✓ should parse array of objects syntax
- ✓ should parse deep object

with inflate option

when false

✓ should not accept content-encoding

when true

✓ should accept content-encoding

with limit option

- ✓ should 413 when over limit with Content-Length
- ✓ should 413 when over limit with chunked encoding

- ✓ should 413 when inflated body over limit
- ✓ should accept number of bytes
- ✓ should not change when options altered
- ✓ should not hang response
- ✓ should not error when inflating

with parameterLimit option

with extended: false

- ✓ should reject 0
- ✓ should reject string
- ✓ should 413 if over limit
- ✓ should work when at the limit
- ✓ should work if number is floating point
- ✓ should work with large limit (149ms)
- ✓ should work with Infinity limit (164ms)

with extended: true

- ✓ should reject 0
- ✓ should reject string
- ✓ should 413 if over limit
- ✓ should work when at the limit
- ✓ should work if number is floating point
- ✓ should work with large limit (56ms)
- ✓ should work with Infinity limit (217ms)

with type option

when "application/vnd.x-www-form-urlencoded"

- ✓ should parse for custom type
- ✓ should ignore standard type

when ["urlencoded", "application/x-pairs"]

- ✓ should parse "application/x-www-form-urlencoded"
- ✓ should parse "application/x-pairs"
- ✓ should ignore application/x-foo

when a function

- ✓ should parse when truthy value returned
- ✓ should work without content-type
- ✓ should not invoke without a body

with verify option

- ✓ should assert value if function
- ✓ should error from verify
- ✓ should allow custom codes
- ✓ should allow custom type
- ✓ should allow pass-through
- ightharpoonup should 415 on unknown charset prior to verify

async local storage

- ✓ should persist store
- ✓ should persist store when unmatched content-type
- ✓ should persist store when inflated
- ✓ should persist store when inflate error
- ✓ should persist store when limit exceeded

charset

- ✓ should parse utf-8
- ✓ should parse when content-length != char length
- ✓ should default to utf-8
- ✓ should fail on unknown charset

encoding

- ✓ should parse without encoding
- ✓ should support identity encoding
- ✓ should support gzip encoding
- ✓ should support deflate encoding
- ✓ should be case-insensitive
- ✓ should 415 on unknown encoding

middleware

- .next()
 - ✓ should behave like connect

throw after .end()

✓ should fail gracefully

req

- ✓ should accept an argument list of type names
- .accepts(type)
 - ✓ should return true when Accept is not present
 - ✓ should return true when present
 - ✓ should return false otherwise
- .accepts(types)
 - ✓ should return the first when Accept is not present
 - ✓ should return the first acceptable type
 - ✓ should return false when no match is made
 - ✓ should take quality into account
 - ✓ should return the first acceptable type with canonical mime types

req

.acceptsCharsets(type)

when Accept-Charset is not present

✓ should return true

when Accept-Charset is present

- ✓ should return true
- ✓ should return false otherwise

req

- .acceptsEncodings
 - ✓ should return encoding if accepted
 - ✓ should be false if encoding not accepted

req

- .acceptsLanguages
 - ✓ should return language if accepted
 - ✓ should be false if language not accepted

when Accept-Language is not present

✓ should always return language

req

- .baseUrl
 - ✓ should be empty for top-level route
 - ✓ should contain lower path
 - ✓ should contain full lower path
 - ✓ should travel through routers correctly

req

- .fresh
 - ✓ should return true when the resource is not modified
 - ✓ should return false when the resource is modified
 - ✓ should return false without response headers
 - ✓ should ignore "If-Modified-Since" when "If-None-Match" is present

req

- .get(field)
 - ✓ should return the header field value
 - ✓ should special-case Referer
 - ✓ should throw missing header name
 - ✓ should throw for non-string header name

req

- .host
 - ✓ should return the Host when present
 - ✓ should strip port number
 - ✓ should return undefined otherwise

CI_nodejs_app #40 Console [Jenkins] ✓ should work with IPv6 Host ✓ should work with IPv6 Host and port when "trust proxy" is enabled ✓ should respect X-Forwarded-Host ✓ should ignore X-Forwarded-Host if socket addr not trusted ✓ should default to Host when trusting hop count ✓ should respect X-Forwarded-Host when "trust proxy" is disabled ✓ should ignore X-Forwarded-Host req .hostname ✓ should return the Host when present ✓ should strip port number ✓ should return undefined otherwise ✓ should work with IPv6 Host ✓ should work with IPv6 Host and port when "trust proxy" is enabled ✓ should respect X-Forwarded-Host ✓ should ignore X-Forwarded-Host if socket addr not trusted ✓ should default to Host when multiple X-Forwarded-Host ✓ should use the first value ✓ should remove OWS around comma ✓ should strip port number when "trust proxy" is disabled ✓ should ignore X-Forwarded-Host req .ip when X-Forwarded-For is present when "trust proxy" is enabled ✓ should return the client addr ✓ should return the addr after trusted proxy based on count ✓ should return the addr after trusted proxy based on list ✓ should return the addr after trusted proxy, from sub app when "trust proxy" is disabled ✓ should return the remote address when X-Forwarded-For is not present

✓ should return the remote address.

```
rea
  .ips
    when X-Forwarded-For is present
      when "trust proxv" is enabled
        ✓ should return an array of the specified addresses

✓ should stop at first untrusted
      when "trust proxy" is disabled

✓ should return an empty array
   when X-Forwarded-For is not present

✓ should return []
req.is()
 when given a mime type

✓ should return the type when matching

✓ should return false when not matching

✓ should ignore charset
 when content-type is not present

✓ should return false

 when given an extension

✓ should lookup the mime type

 when given */subtype
    ✓ should return the full type when matching

✓ should return false when not matching

✓ should ignore charset
 when given type/*

✓ should return the full type when matching

✓ should return false when not matching

✓ should ignore charset
req
  .path

✓ should return the parsed pathname

rea
  .protocol

✓ should return the protocol string
   when "trust proxy" is enabled

✓ should respect X-Forwarded-Proto
      ✓ should default to the socket addr if X-Forwarded-Proto not present
      ✓ should ignore X-Forwarded-Proto if socket addr not trusted

✓ should default to http.
```

when trusting hop count

```
✓ should respect X-Forwarded-Proto
   when "trust proxy" is disabled

✓ should ignore X-Forwarded-Proto
req
  .query

✓ should default to {}

✓ should default to parse simple keys

   when "query parser" is extended

✓ should parse complex keys

✓ should parse parameters with dots

    when "query parser" is simple

✓ should not parse complex keys

    when "query parser" is a function

✓ should parse using function

    when "query parser" disabled

✓ should not parse query
    when "query parser" enabled

✓ should not parse complex keys

   when "query parser" an unknown value

✓ should throw
req
  .range(size)

✓ should return parsed ranges

✓ should cap to the given size

✓ should cap to the given size when open-ended

✓ should have a .type

✓ should accept any type

✓ should return undefined if no range
  .range(size, options)
   with "combine: true" option

✓ should return combined ranges

req
  .route

✓ should be the executed Route

req
  .secure
    when X-Forwarded-Proto is missing
```

✓ should return false when http.

.secure

when X-Forwarded-Proto is present

- ✓ should return false when http
- ✓ should return true when "trust proxy" is enabled
- ✓ should return false when initial proxy is http.
- ✓ should return true when initial proxy is https

when "trust proxy" trusting hop count

✓ should respect X-Forwarded-Proto

req

- .signedCookies
 - ✓ should return a signed JSON cookie

req

.stale

- ✓ should return false when the resource is not modified
- ✓ should return true when the resource is modified
- ✓ should return true without response headers

req

.subdomains

when present

- ✓ should return an array
- ✓ should work with IPv4 address
- ✓ should work with IPv6 address

otherwise

✓ should return an empty array

with no host

✓ should return an empty array

with trusted X-Forwarded-Host

✓ should return an array

when subdomain offset is set

when subdomain offset is zero

- ✓ should return an array with the whole domain
- ✓ should return an array with the whole IPv4
- ✓ should return an array with the whole IPv6

when present

✓ should return an array

otherwise

✓ should return an empty array

```
rea
```

.xhr

- ✓ should return true when X-Requested-With is xmlhttprequest
- ✓ should case-insensitive
- ✓ should return false otherwise
- ✓ should return false when not present

res

.append(field, val)

- ✓ should append multiple headers
- ✓ should accept array of values
- ✓ should get reset by res.set(field, val)
- ✓ should work with res.set(field, val) first
- ✓ should work together with res.cookie

res

- .attachment()
 - ✓ should Content-Disposition to attachment
- .attachment(filename)
 - ✓ should add the filename param
 - ✓ should set the Content-Type
- .attachment(utf8filename)
 - ✓ should add the filename and filename* params
 - ✓ should set the Content-Type

res

- .clearCookie(name)
 - ✓ should set a cookie passed expiry
- .clearCookie(name, options)
 - ✓ should set the given params
 - ✓ should ignore maxAge
 - ✓ should ignore user supplied expires param

res

- .cookie(name, object)
 - ✓ should generate a JSON cookie
- .cookie(name, string)
 - ✓ should set a cookie
 - ✓ should allow multiple calls
- .cookie(name, string, options)
 - ✓ should set params
 - expires

✓ should throw on invalid date partitioned

✓ should set partitioned

maxAge

- ✓ should set relative expires
- ✓ should set max-age
- ✓ should not mutate the options object
- ✓ should not throw on null
- ✓ should not throw on undefined
- ✓ should throw an error with invalid maxAge priority
 - ✓ should set low priority
 - ✓ should set medium priority
 - ✓ should set high priority
 - ✓ should throw with invalid priority

signed

- ✓ should generate a signed JSON cookie
- signed without secret
 - ✓ should throw an error
- .signedCookie(name, string)
 - ✓ should set a signed cookie

res

- .download(path)
 - ✓ should transfer as an attachment
 - ✓ should accept range requests
 - ✓ should respond with requested byte range
- .download(path, filename)
 - ✓ should provide an alternate filename
- .download(path, fn)
 - ✓ should invoke the callback
 - async local storage
 - ✓ should persist store
 - ✓ should persist store on error
- .download(path, options)
 - ✓ should allow options to res.sendFile()
 - with "headers" option
 - ✓ should set headers on response
 - ✓ should use last header when duplicated
 - ✓ should override Content-Type
 - ✓ should not set headers on 404
 - when headers contains Content-Disposition

- ✓ should be ignored
- ✓ should be ignored case-insensitively

with "root" option

- ✓ should allow relative path
- ✓ should allow up within root
- ✓ should reject up outside root
- ✓ should reject reading outside root

.download(path, filename, fn)

- ✓ should invoke the callback
- .download(path, filename, options, fn)
 - ✓ should invoke the callback
 - ✓ should allow options to res.sendFile()

when options.headers contains Content-Disposition

- ✓ should be ignored
- ✓ should be ignored case-insensitively

on failure

- ✓ should invoke the callback
- ✓ should remove Content-Disposition

res

.format(obj)

with canonicalized mime types

- ✓ should utilize gvalues in negotiation
- ✓ should allow wildcard type/subtypes
- ✓ should default the Content-Type
- ✓ should set the correct charset for the Content-Type
- ✓ should Vary: Accept

when Accept is not present

✓ should invoke the first callback

when no match is made

✓ should respond with 406 not acceptable

with extnames

- ✓ should utilize gvalues in negotiation
- ✓ should allow wildcard type/subtypes
- ✓ should default the Content-Type
- ✓ should set the correct charset for the Content-Type
- ✓ should Vary: Accept

when Accept is not present

✓ should invoke the first callback

when no match is made

✓ should respond with 406 not acceptable

with parameters

- ✓ should utilize gvalues in negotiation
- ✓ should allow wildcard type/subtypes
- ✓ should default the Content-Type
- ✓ should set the correct charset for the Content-Type
- ✓ should Vary: Accept

when Accept is not present

✓ should invoke the first callback

when no match is made

✓ should respond with 406 not acceptable

given .default

- ✓ should be invoked instead of auto-responding
- ✓ should work when only .default is provided
- ✓ should be able to invoke other formatter

in router

- ✓ should utilize qvalues in negotiation
- ✓ should allow wildcard type/subtypes
- ✓ should default the Content-Type
- ✓ should set the correct charset for the Content-Type
- ✓ should Vary: Accept

when Accept is not present

✓ should invoke the first callback

when no match is made

✓ should respond with 406 not acceptable

in router

- ✓ should utilize gvalues in negotiation
- ✓ should allow wildcard type/subtypes
- ✓ should default the Content-Type
- ✓ should set the correct charset for the Content-Type
- ✓ should Vary: Accept

when Accept is not present

✓ should invoke the first callback

when no match is made

✓ should respond with 406 not acceptable

res

.get(field)

✓ should get the response header field

res

- .json(object)
 - ✓ should not support jsonp callbacks
 - ✓ should not override previous Content-Types

```
when given primitives
```

- ✓ should respond with json for null
- ✓ should respond with json for Number
- ✓ should respond with json for String

when given an array

✓ should respond with json

when given an object

- ✓ should respond with json
- "json escape" setting
 - ✓ should be undefined by default
 - ✓ should unicode escape HTML-sniffing characters
 - ✓ should not break undefined escape
- "json replacer" setting
 - ✓ should be passed to JSON.stringify()
- "json spaces" setting
 - ✓ should be undefined by default
 - ✓ should be passed to JSON.stringify()

res

- ✓ should not override previous Content-Types
- .jsonp(object)
 - ✓ should respond with jsonp
 - ✓ should use first callback parameter with jsonp
 - ✓ should ignore object callback parameter with jsonp
 - ✓ should allow renaming callback
 - ✓ should allow []
 - ✓ should disallow arbitrary js
 - ✓ should escape utf whitespace
 - ✓ should not escape utf whitespace for json fallback
 - ✓ should include security header and prologue
 - ✓ should not override previous Content-Types with no callback
 - $\ensuremath{\scriptstyle \checkmark}$ should override previous Content-Types with callback

when given undefined

- ✓ should invoke callback with no arguments
- when given null
 - ✓ should invoke callback with null
- when given a string
 - ✓ should invoke callback with a string
- when given a number
 - ✓ should invoke callback with a number
- when given an array
 - ✓ should invoke callback with an array

```
when given an object

✓ should invoke callback with an object
      "json escape" setting

✓ should be undefined by default

        ✓ should unicode escape HTML-sniffing characters
        ✓ should not break undefined escape
      "json replacer" setting

✓ should be passed to JSON.stringify()
      "json spaces" setting

✓ should be undefined by default

✓ should be passed to JSON.stringify()
  res
    .links(obj)

✓ should set Link header field

✓ should set Link header field for multiple calls

✓ should set multiple links for single rel

  res

✓ should work when mounted.

    .locals

✓ should be empty by default

  res
    .location(url)

✓ should set the header

✓ should preserve trailing slashes when not present

✓ should encode "url"

✓ should encode data uril

✓ should encode data uri2

      ✓ should consistently handle non-string input: boolean
      ✓ should consistently handle non-string inputs: object
      ✓ should consistently handle non-string inputs: array
      ✓ should consistently handle empty string input

✓ should accept an instance of URL
    location header encoding

✓ should not touch already-encoded sequences in "url"

✓ should consistently handle relative urls

✓ should not encode urls in such a way that they can bypass redirect

allow lists

✓ should not be case sensitive
```

✓ should work with https

- ✓ should correctly encode schemaless paths
- ✓ should keep backslashes in the path
- ✓ should escape header splitting for old node versions
- ✓ should encode unicode correctly
- ✓ should encode unicode correctly even with a bad host
- ✓ should work correctly despite using deprecated url.parse
- ✓ should encode file uri path

res

- .redirect(url)
 - ✓ should default to a 302 redirect
 - ✓ should encode "url"
 - ✓ should not touch already-encoded sequences in "url"
- .redirect(status, url)
 - ✓ should set the response status

when the request method is HEAD

✓ should ignore the body

when accepting html

- ✓ should respond with html
- ✓ should escape the url
- ✓ should not render evil javascript links in anchor href (prevent XSS)
- ✓ should include the redirect type

when accepting text

- ✓ should respond with text
- ✓ should encode the url
- ✓ should include the redirect type

when accepting neither text or html

✓ should respond with an empty body

res

- .render(name)
 - ✓ should support absolute paths
 - ✓ should support absolute paths with "view engine"
- ✓ should error without "view engine" set and file extension to a nonengine module
 - ✓ should error without "view engine" set and no file extension
 - ✓ should expose app.locals
 - ✓ should expose app.locals with `name` property
 - ✓ should support index.<engine>

when an error occurs

✓ should next(err)

when "view engine" is given

```
✓ should render the template
   when "views" is given

✓ should lookup the file in the path

     when array of paths
        ✓ should lookup the file in the path
        ✓ should lookup in later paths until found
  .render(name, option)

✓ should render the template

✓ should expose app.locals

✓ should expose res.locals

   ✓ should give precedence to res.locals over app.locals
   ✓ should give precedence to res.render() locals over res.locals
   ✓ should give precedence to res.render() locals over app.locals
  .render(name, options, fn)

✓ should pass the resulting string
 .render(name, fn)

✓ should pass the resulting string
   when an error occurs

✓ should pass it to the callback

res

✓ should always check regardless of length
 ✓ should respond with 304 Not Modified when fresh
 ✓ should not perform freshness check unless 2xx or 304

✓ should not support jsonp callbacks

✓ should be chainable

 .send()

✓ should set body to ""

 .send(null)

✓ should set body to ""

  .send(undefined)

✓ should set body to ""

 .send(Number)

✓ should send as application/json
  .send(String)

✓ should send as html

✓ should set ETag

✓ should not override Content-Type

   ✓ should override charset in Content-Type

✓ should keep charset in Content-Type for Buffers

  .send(Buffer)

✓ should send as octet-stream
```

- ✓ should set ETag
- ✓ should not override Content-Type
- ✓ should accept Uint8Array
- ✓ should not override ETag

.send(Object)

✓ should send as application/json

when the request method is HEAD

✓ should ignore the body

when .statusCode is 204

- ✓ should strip Content-* fields, Transfer-Encoding field, and body when .statusCode is 205
- ✓ should strip Transfer-Encoding field and body, set Content-Length when .statusCode is 304
- ✓ should strip Content-* fields, Transfer-Encoding field, and body
 "etag" setting

when enabled

- ✓ should send ETag
- ✓ should send ETag in response to ACL request
- ✓ should send ETag in response to BIND request
- ✓ should send ETag in response to CHECKOUT request
- ✓ should send ETag in response to COPY request
- ✓ should send ETag in response to DELETE request
- ✓ should send ETag in response to GET request
- ✓ should send ETag in response to HEAD request
- ✓ should send ETag in response to LINK request
- ✓ should send ETag in response to LOCK request
- ✓ should send ETag in response to M-SEARCH request
- ✓ should send ETag in response to MERGE request
- ✓ should send ETag in response to MKACTIVITY request
- ✓ should send ETag in response to MKCALENDAR request
- ✓ should send ETag in response to MKCOL request
- ✓ should send ETag in response to MOVE request
- ✓ should send ETag in response to NOTIFY request
- ✓ should send ETag in response to OPTIONS request
- ✓ should send ETag in response to PATCH request
- ✓ should send ETag in response to POST request
- ✓ should send ETag in response to PROPFIND request
- ✓ should send ETag in response to PROPPATCH request
- ✓ should send ETag in response to PURGE request
- ✓ should send ETag in response to PUT request
- ✓ should send ETag in response to QUERY request
- ✓ should send ETag in response to REBIND request

- ✓ should send ETag in response to REPORT request
- ✓ should send ETag in response to SEARCH request
- ✓ should send ETag in response to SOURCE request
- ✓ should send ETag in response to SUBSCRIBE request
- ✓ should send ETag in response to TRACE request
- ✓ should send ETag in response to UNBIND request
- ✓ should send ETag in response to UNLINK request
- ✓ should send ETag in response to UNLOCK request
- ✓ should send ETag in response to UNSUBSCRIBE request
- ✓ should send ETag for empty string response
- ✓ should send ETag for long response
- ✓ should not override ETag when manually set
- ✓ should not send ETag for res.send()

when disabled

- ✓ should send no ETag
- ✓ should send ETag when manually set

when "strong"

✓ should send strong ETag

when "weak"

✓ should send weak ETag

when a function

- ✓ should send custom ETag
- ✓ should not send falsy ETag

res

.sendFile(path)

- ✓ should error missing path
- ✓ should error for non-string path
- ✓ should error for non-absolute path
- ✓ should transfer a file
- ✓ should transfer a file with special characters in string
- ✓ should include ETag
- ✓ should 304 when ETag matches
- ✓ should disable the ETag function if requested
- ✓ should 404 for directory
- ✓ should 404 when not found
- ✓ should send cache-control by default
- ✓ should not serve dotfiles by default
- ✓ should not override manual content-types
- ✓ should not error if the client aborts

.sendFile(path, fn)

✓ should invoke the callback when complete

- ✓ should invoke the callback when client aborts
- ✓ should invoke the callback when client already aborted
- ✓ should invoke the callback without error when HEAD
- ✓ should invoke the callback without error when 304
- ✓ should invoke the callback on 404
- async local storage
 - ✓ should persist store
 - ✓ should persist store on error
- .sendFile(path, options)
 - ✓ should pass options to send module
 - with "acceptRanges" option

when true

- ✓ should advertise byte range accepted
- ✓ should respond to range request

when false

- ✓ should not advertise accept-ranges
- ✓ should not honor range requests

with "cacheControl" option

when true

✓ should send cache-control header

when false

✓ should not send cache-control header

with "dotfiles" option

when "allow"

✓ should allow dotfiles

when "deny"

✓ should deny dotfiles

when "ignore"

✓ should ignore dotfiles

with "headers" option

- ✓ should set headers on response
- ✓ should use last header when duplicated
- ✓ should override Content-Type
- ✓ should not set headers on 404

with "immutable" option

when true

✓ should send cache-control header with immutable

when false

✓ should not send cache-control header with immutable

with "lastModified" option

when true

✓ should send last-modified header

- ✓ should conditionally respond with if-modified-since
 when false
 - ✓ should not have last-modified header
 - ✓ should not honor if-modified-since

with "maxAge" option

- ✓ should set cache-control max-age to milliseconds
- ✓ should cap cache-control max-age to 1 year
- ✓ should min cache-control max-age to 0
- ✓ should floor cache-control max-age

when cacheControl: false

✓ should not send cache-control

when string

- ✓ should accept plain number as milliseconds
- ✓ should accept suffix "s" for seconds
- ✓ should accept suffix "m" for minutes
- ✓ should accept suffix "d" for days

with "root" option

- ✓ should allow relative path
- ✓ should allow up within root
- ✓ should reject up outside root
- ✓ should reject reading outside root

res

- .sendStatus(statusCode)
 - ✓ should send the status code and message as body
 - ✓ should work with unknown code
 - ✓ should raise error for invalid status code

res

- .set(field, value)
 - ✓ should set the response header field
 - ✓ should coerce to a string
- .set(field, values)
 - ✓ should set multiple response header fields
 - ✓ should coerce to an array of strings
 - ✓ should not set a charset of one is already set
 - ✓ should throw when Content-Type is an array

.set(object)

- ✓ should set multiple fields
- ✓ should coerce to a string

.status(code)

- ✓ should set the status code when valid accept valid ranges
 - ✓ should set the response status code to 101
 - ✓ should set the response status code to 201
 - ✓ should set the response status code to 302
 - $\scriptstyle \hspace*{-0.1cm} \scriptstyle \hspace*{-0.1cm} \hspace*{-0$
 - ✓ should set the response status code to 501
 - ✓ should set the response status code to 700
 - ✓ should set the response status code to 800
 - ✓ should set the response status code to 900

invalid status codes

- ✓ should raise error for status code below 100
- ✓ should raise error for status code above 999
- ✓ should raise error for non-integer status codes
- ✓ should raise error for undefined status code
- ✓ should raise error for null status code
- ✓ should raise error for string status code
- ✓ should raise error for NaN status code

res

.type(str)

- ✓ should set the Content-Type based on a filename
- ✓ should default to application/octet-stream
- ✓ should set the Content-Type with type/subtype

res.vary()

with no arguments

✓ should throw error

with an empty array

✓ should not set Vary

with an array

✓ should set the values

with a string

✓ should set the value

when the value is present

✓ should not add it again

utils.etag(body, encoding)

- ✓ should support strings
- ✓ should support utf8 strings
- ✓ should support buffer

✓ should support empty string

```
utils.normalizeType acceptParams method
```

 $\ensuremath{\checkmark}$ should handle a type with a malformed parameter and break the loop in acceptParams

```
utils.setCharset(type, charset)

✓ should do anything without type

✓ should return type if not given charset

✓ should keep charset if not given charset

✓ should set charset

✓ should override charset
utils.wetag(body, encoding)

✓ should support strings

✓ should support utf8 strings

✓ should support buffer

✓ should support empty string

auth
 GET /

✓ should redirect to /login
 GET /login

✓ should render login form

✓ should display login error for bad user

✓ should display login error for bad password (56ms)
 GET /logout

✓ should redirect to /
 GET /restricted

✓ should redirect to /login without cookie

✓ should succeed with proper cookie (50ms)
  POST /login
    ✓ should fail without proper username
    ✓ should fail without proper password (46ms)

✓ should succeed with proper credentials (45ms)
content-negotiation
 GET /

✓ should default to text/html

✓ should accept to text/plain

✓ should accept to application/json
```

GET /users

```
✓ should default to text/html

✓ should accept to text/plain

✓ should accept to application/json
cookie-sessions
  GET /

✓ should display no views

✓ should set a session cookie

✓ should display 1 view on revisit
cookies
  GET /

✓ should have a form

✓ should respond with no cookies

✓ should respond to cookie

  GET /forget

✓ should clear cookie

  POST /

✓ should set a cookie

✓ should no set cookie w/o reminder
downloads
  GET /

✓ should have a link to amazing.txt
  GET /files/notes/groceries.txt

✓ should have a download header
  GET /files/amazing.txt

✓ should have a download header
  GET /files/missing.txt

✓ should respond with 404

  GET /files/../index.js
    ✓ should respond with 403
ejs
  GET /

✓ should respond with html

error-pages
  GET /

✓ should respond with page list
  Accept: text/html
    GET /403
```

```
✓ should respond with 403
    GET /404

✓ should respond with 404

    GET /500
      ✓ should respond with 500
  Accept: application/json
    GET /403

✓ should respond with 403

    GET /404
      ✓ should respond with 404
    GET /500

✓ should respond with 500

  Accept: text/plain
    GET /403

✓ should respond with 403

    GET /404

✓ should respond with 404

    GET /500

✓ should respond with 500

error
  GET /

✓ should respond with 500

  GET /next

✓ should respond with 500

  GET /missing
    ✓ should respond with 404
hello-world
  GET /

✓ should respond with hello world

  GET /missing
    ✓ should respond with 404
markdown
  GET /

✓ should respond with html (41ms)
  GET /fail

✓ should respond with an error
multi-router
  GET /
```

```
✓ should respond with root handler
  GET /api/v1/

✓ should respond with APIv1 root handler
  GET /api/v1/users

✓ should respond with users from APIv1
  GET /api/v2/

✓ should respond with APIv2 root handler
  GET /api/v2/users

✓ should respond with users from APIv2

mvc
  GET /

✓ should redirect to /users
  GET /pet/0

✓ should get pet

  GET /pet/0/edit

✓ should get pet edit page
  PUT /pet/2

✓ should update the pet

  GET /users

✓ should display a list of users (128ms)
  GET /user/:id
    when present

✓ should display the user

✓ should display the users pets

    when not present
      ✓ should 404
  GET /user/:id/edit

✓ should display the edit form

  PUT /user/:id

✓ should 500 on error

✓ should update the user
  POST /user/:id/pet

✓ should create a pet for user
params
  GET /

✓ should respond with instructions

  GET /user/0

✓ should respond with a user
  GET /user/9

✓ should fail to find user
```

```
GET /users/0-2

✓ should respond with three users

 GET /users/foo-bar

✓ should fail integer parsing
resource
 GET /

✓ should respond with instructions

 GET /users

✓ should respond with all users

 GET /users/1

✓ should respond with user 1

 GET /users/9

✓ should respond with error

 GET /users/1..3

✓ should respond with users 1 through 3

 DELETE /users/1

✓ should delete user 1

 DELETE /users/9

✓ should fail

 GET /users/1..3.json
    ✓ should respond with users 2 and 3 as json
route-map
 GET /users

✓ should respond with users

 DELETE /users

✓ should delete users

 GET /users/:id

✓ should get a user
 GET /users/:id/pets

✓ should get a users pets

 GET /users/:id/pets/:pid

✓ should get a users pet

route-separation
 GET /

✓ should respond with index
 GET /users

✓ should list users

 GET /user/:id

✓ should get a user
```

```
✓ should 404 on missing user
      GET /user/:id/view

✓ should get a user
         ✓ should 404 on missing user
      GET /user/:id/edit

✓ should get a user to edit

       PUT /user/:id/edit

✓ should edit a user
       POST /user/:id/edit? method=PUT

✓ should edit a user
      GET /posts
Dashboard
            CI nodejs app
                            #40
    vhost
       example.com
         GET /

✓ should say hello
         GET /foo

✓ should say foo

       foo.example.com
         GET /

✓ should redirect to /foo

       bar.example.com
         GET /

✓ should redirect to /bar
    web-service
      GET /api/users
         without an api key

✓ should respond with 400 bad request

         with an invalid api key

✓ should respond with 401 unauthorized

        with a valid api key

✓ should respond users json
      GET /api/repos
         without an api key

✓ should respond with 400 bad request

        with an invalid api key
           ✓ should respond with 401 unauthorized
        with a valid api key

✓ should respond repos json
      GET /api/user/:name/repos
```

without an api key

```
✓ should respond with 400 bad request

      with an invalid api key
        ✓ should respond with 401 unauthorized
     with a valid api key

✓ should respond user repos json
        ✓ should 404 with unknown user
   when requesting an invalid route
      ✓ should respond with 404 json
  1238 passing (12s)
[Pipeline] }
[Pipeline] // dir
[Pipeline] }
[Pipeline] // stage
[Pipeline] stage
[Pipeline] { (Building docker image and pushing image to my registry)
[Pipeline] script
[Pipeline] {
[Pipeline] withEnv
[Pipeline] {
[Pipeline] withDockerRegistry
$ docker login -u raghumn -p ****** https://index.docker.io/v1/
WARNING! Using --password via the CLI is insecure. Use --password-stdin.
WARNING! Your credentials are stored unencrypted in
'/var/jenkins home/nodejs-app@tmp/fbf246f7-dcda-43ce-8776-
659d91290b53/config.json'.
Configure a credential helper to remove this warning. See
https://docs.docker.com/go/credential-store/
Login Succeeded
[Pipeline] {
[Pipeline] isUnix
[Pipeline] withEnv
[Pipeline] {
[Pipeline] sh
+ docker build -t raghumn/nodejsapp:40 .
DEPRECATED: The legacy builder is deprecated and will be removed in a future
release.
```

Install the buildx component to build images with BuildKit: https://docs.docker.com/go/buildx/

Sending build context to Docker daemon 49.24MB

```
Step 1/9 : FROM node:24.5.0-alpine
 ---> 0b691ce23fac
Step 2/9 : RUN mkdir /apps
 ---> Using cache
 ---> 66797407e19b
Step 3/9 : WORKDIR /apps
 ---> Using cache
 ---> c782b80cb042
Step 4/9 : COPY express .
 ---> Using cache
 ---> 8e285b2af425
Step 5/9: RUN chown -R node: node /apps
 ---> Using cache
 ---> a54c46120668
Step 6/9 : USER node
 ---> Using cache
 ---> 4215946aa6ad
Step 7/9 : RUN npm install
 ---> Using cache
 ---> c1b7cdd21310
Step 8/9 : EXPOSE 3000
 ---> Using cache
 ---> 767fb090976a
Step 9/9 : CMD ["node", "examples/hello-world/"]
 ---> Using cache
 ---> ebd2b5fd29e4
Successfully built ebd2b5fd29e4
Successfully tagged raghumn/nodejsapp:40
[Pipeline] }
[Pipeline] // withEnv
[Pipeline] isUnix
[Pipeline] withEnv
[Pipeline] {
[Pipeline] sh
+ docker tag raghumn/nodejsapp:40 index.docker.io/raghumn/nodejsapp:40
[Pipeline] }
```

```
[Pipeline] // withEnv
[Pipeline] isUnix
[Pipeline] withEnv
[Pipelinel {
[Pipeline] sh
+ docker push index.docker.io/raghumn/nodejsapp:40
The push refers to repository [docker.io/raghumn/nodejsapp]
53cffa8011b2: Preparing
4f1d43df96e0: Preparing
1fe22ac45d58: Preparing
b1847263dcf4: Preparing
7a33222fb068: Preparing
12f4d6be233e: Preparing
d0596b02df10: Preparing
418dccb7d85a: Preparing
12f4d6be233e: Waiting
d0596b02df10: Waiting
418dccb7d85a: Waiting
b1847263dcf4: Layer already exists
4f1d43df96e0: Layer already exists
1fe22ac45d58: Layer already exists
53cffa8011b2: Layer already exists
7a33222fb068: Layer already exists
12f4d6be233e: Layer already exists
418dccb7d85a: Layer already exists
d0596b02df10: Layer already exists
40: digest:
sha256:f946210e5607b301580487667bb77b0532acda65bfe49916ea0297d9eff1e575 size:
1996
[Pipeline] }
[Pipeline] // withEnv
[Pipeline] }
[Pipeline] // withDockerRegistry
[Pipeline] }
[Pipeline] // withEnv
[Pipeline] }
[Pipeline] // script
[Pipeline] }
[Pipeline] // stage
[Pipeline] stage
[Pipeline] { (Getting previous image tag)
```

```
[Pipeline] script
[Pipeline] {
[Pipeline] echo
Previous build number for rollback if deployment fails: 39
[Pipeline] }
[Pipeline] // script
[Pipeline] }
[Pipeline] // stage
[Pipeline] stage
[Pipeline] { (Declarative: Post Actions)
[Pipeline] script
[Pipeline] {
[Pipeline] }
[Pipeline] // script
[Pipeline] echo
CI passed. Triggering CD job...
[Pipeline] build (Scheduling CD nodejs app)
Scheduling project: CD nodejs app
[Pipeline] }
[Pipeline] // stage
[Pipeline] }
[Pipeline] // ws
[Pipeline] }
[Pipeline] // node
[Pipeline] End of Pipeline
Finished: SUCCESS
```