axios / **axios**

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delirius325 Add getUri method (#1712) 4f98acc 14 days ago

53 contributors and others

```
Executable File   673 lines (521 sloc)   20.7 KB
```

axios

npm v0.18.0 | build passing | coverage 94% | install size 387 kB | downloads 10M/m | chat on gitter | code helpers 30

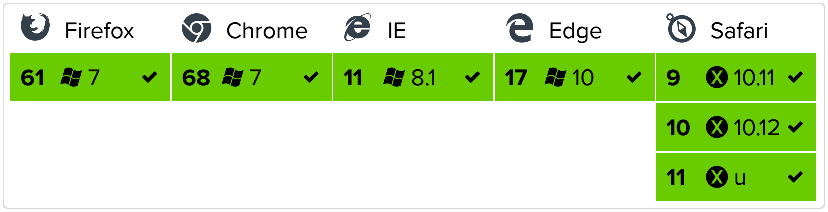
Promise based HTTP client for the browser and node.js

Features

- Make XMLHttpRequests from the browser
- Make http requests from node.js
- Supports the Promise API
- Intercept request and response
- Transform request and response data
- Cancel requests
- Automatic transforms for JSON data
- Client side support for protecting against XSRF

Browser Support

Latest ✓	Latest ✓	Latest ✓	Latest ✓	Latest ✓	11 ✓



Firefox	Chrome	IE	Edge	Safari
61 7 ✓	68 7 ✓	11 8.1 ✓	17 10 ✓	9 10.11 ✓
				10 10.12 ✓
				11 u ✓

Installing

Using npm:

```
$ npm install axios
```

Using bower:

```
$ bower install axios
```

Using cdn:

```
<script src="https://unpkg.com/axios/dist/axios.min.js"></script>
```

Example

Performing a `GET` request

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

// Make a request for a user with a given ID
axios.get('/user?ID=12345')
  .then(function (response) {
    // handle success
    console.log(response);
  })
  .catch(function (error) {
    // handle error
    console.log(error);
  })
  .then(function () {
    // always executed
  });

// Optionally the request above could also be done as
axios.get('/user', {
    params: {
      ID: 12345
    }
  })
  .then(function (response) {
    console.log(response);
  })
  .catch(function (error) {
    console.log(error);
  })
  .then(function () {
    // always executed
  });

// Want to use async/await? Add the `async` keyword to your outer function/method.
async function getUser() {
  try {
    const response = await axios.get('/user?ID=12345');
    console.log(response);
  } catch (error) {
    console.error(error);
  }
}
```

> **NOTE:** `async/await` is part of ECMAScript 2017 and is not supported in Internet Explorer and older browsers, so use with caution.

Performing a `POST` request

```
axios.post('/user', {
    firstName: 'Fred',
    lastName: 'Flintstone'
  })
  .then(function (response) {
    console.log(response);
  })
  .catch(function (error) {
    console.log(error);
  });
```

Performing multiple concurrent requests

```
function getUserAccount() {
  return axios.get('/user/12345');
}

function getUserPermissions() {
  return axios.get('/user/12345/permissions');
}

axios.all([getUserAccount(), getUserPermissions()])
  .then(axios.spread(function (acct, perms) {
    // Both requests are now complete
  }));
```

axios API

Requests can be made by passing the relevant config to `axios` .

axios(config)

```
// Send a POST request
axios({
  method: 'post',
  url: '/user/12345',
  data: {
    firstName: 'Fred',
    lastName: 'Flintstone'
  }
});
```

```
// GET request for remote image
axios({
  method:'get',
  url:'http://bit.ly/2mTM3nY',
  responseType:'stream'
})
  .then(function(response) {
    response.data.pipe(fs.createWriteStream('ada_lovelace.jpg'))
  });
```

axios(url[, config])

```
// Send a GET request (default method)
axios('/user/12345');
```

Request method aliases

For convenience aliases have been provided for all supported request methods.

axios.request(config)

axios.get(url[, config])

axios.delete(url[, config])

axios.head(url[, config])

axios.options(url[, config])

axios.post(url[, data[, config]])

axios.put(url[, data[, config]])

axios.patch(url[, data[, config]])

NOTE

When using the alias methods `url` , `method` , and `data` properties don't need to be specified in config.

Concurrency

Helper functions for dealing with concurrent requests.

axios.all(iterable)

axios.spread(callback)

Creating an instance

You can create a new instance of axios with a custom config.

axios.create([config])

```
const instance = axios.create({
  baseURL: 'https://some-domain.com/api/',
  timeout: 1000,
  headers: {'X-Custom-Header': 'foobar'}
});
```

Instance methods

The available instance methods are listed below. The specified config will be merged with the instance config.

axios#request(config)

axios#get(url[, config])

axios#delete(url[, config])

axios#head(url[, config])

axios#options(url[, config])

axios#post(url[, data[, config]])

axios#put(url[, data[, config]])

axios#patch(url[, data[, config]])

axios#getUri([config])

Request Config

These are the available config options for making requests. Only the `url` is required. Requests will default to `GET` if `method` is not specified.

```
{
  // `url` is the server URL that will be used for the request
  url: '/user',

  // `method` is the request method to be used when making the request
  method: 'get', // default

  // `baseURL` will be prepended to `url` unless `url` is absolute.
  // It can be convenient to set `baseURL` for an instance of axios to pass relative URLs
  // to methods of that instance.
  baseURL: 'https://some-domain.com/api/',

  // `transformRequest` allows changes to the request data before it is sent to the server
  // This is only applicable for request methods 'PUT', 'POST', and 'PATCH'
  // The last function in the array must return a string or an instance of Buffer, ArrayBuffer,
  // FormData or Stream
  // You may modify the headers object.
  transformRequest: [function (data, headers) {
    // Do whatever you want to transform the data

    return data;
  }],

  // `transformResponse` allows changes to the response data to be made before
  // it is passed to then/catch
  transformResponse: [function (data) {
    // Do whatever you want to transform the data

    return data;
  }],

  // `headers` are custom headers to be sent
  headers: {'X-Requested-With': 'XMLHttpRequest'},

  // `params` are the URL parameters to be sent with the request
  // Must be a plain object or a URLSearchParams object
  params: {
    ID: 12345
  },

  // `paramsSerializer` is an optional function in charge of serializing `params`
  // (e.g. https://www.npmjs.com/package/qs, http://api.jquery.com/jquery.param/)
  paramsSerializer: function(params) {
    return Qs.stringify(params, {arrayFormat: 'brackets'})
  },

  // `data` is the data to be sent as the request body
  // Only applicable for request methods 'PUT', 'POST', and 'PATCH'
  // When no `transformRequest` is set, must be of one of the following types:
  // - string, plain object, ArrayBuffer, ArrayBufferView, URLSearchParams
  // - Browser only: FormData, File, Blob
  // - Node only: Stream, Buffer
  data: {
    firstName: 'Fred'
  },

  // `timeout` specifies the number of milliseconds before the request times out.
  // If the request takes longer than `timeout`, the request will be aborted.
  timeout: 1000,

  // `withCredentials` indicates whether or not cross-site Access-Control requests
  // should be made using credentials
  withCredentials: false, // default

  // `adapter` allows custom handling of requests which makes testing easier.
  // Return a promise and supply a valid response (see lib/adapters/README.md).
  adapter: function (config) {
    /* ... */
  },

  // `auth` indicates that HTTP Basic auth should be used, and supplies credentials.
  // This will set an `Authorization` header, overwriting any existing
  // `Authorization` custom headers you have set using `headers`.
  auth: {
    username: 'janedoe',
    password: 's00pers3cret'
  },

  // `responseType` indicates the type of data that the server will respond with
  // options are 'arraybuffer', 'blob', 'document', 'json', 'text', 'stream'
  responseType: 'json', // default

  // `responseEncoding` indicates encoding to use for decoding responses
  // Note: Ignored for `responseType` of 'stream' or client-side requests
  responseEncoding: 'utf8', // default

  // `xsrfCookieName` is the name of the cookie to use as a value for xsrf token
  xsrfCookieName: 'XSRF-TOKEN', // default

  // `xsrfHeaderName` is the name of the http header that carries the xsrf token value
  xsrfHeaderName: 'X-XSRF-TOKEN', // default

  // `onUploadProgress` allows handling of progress events for uploads
  onUploadProgress: function (progressEvent) {
    // Do whatever you want with the native progress event
  },

  // `onDownloadProgress` allows handling of progress events for downloads
  onDownloadProgress: function (progressEvent) {
    // Do whatever you want with the native progress event
  },

  // `maxContentLength` defines the max size of the http response content in bytes allowed
  maxContentLength: 2000,

  // `validateStatus` defines whether to resolve or reject the promise for a given
  // HTTP response status code. If `validateStatus` returns `true` (or is set to `null`
  // or `undefined`), the promise will be resolved; otherwise, the promise will be
  // rejected.
  validateStatus: function (status) {
    return status >= 200 && status < 300; // default
  },

  // `maxRedirects` defines the maximum number of redirects to follow in node.js.
  // If set to 0, no redirects will be followed.
  maxRedirects: 5, // default

  // `socketPath` defines a UNIX Socket to be used in node.js.
  // e.g. '/var/run/docker.sock' to send requests to the docker daemon.
  // Only either `socketPath` or `proxy` can be specified.
  // If both are specified, `socketPath` is used.
  socketPath: null, // default

  // `httpAgent` and `httpsAgent` define a custom agent to be used when performing http
  // and https requests, respectively, in node.js. This allows options to be added like
  // `keepAlive` that are not enabled by default.
  httpAgent: new http.Agent({ keepAlive: true }),
  httpsAgent: new https.Agent({ keepAlive: true }),

  // 'proxy' defines the hostname and port of the proxy server.
  // You can also define your proxy using the conventional `http_proxy` and
  // `https_proxy` environment variables. If you are using environment variables
  // for your proxy configuration, you can also define a `no_proxy` environment
  // variable as a comma-separated list of domains that should not be proxied.
  // Use `false` to disable proxies, ignoring environment variables.
  // `auth` indicates that HTTP Basic auth should be used to connect to the proxy, and
  // supplies credentials.
  // This will set an `Proxy-Authorization` header, overwriting any existing
  // `Proxy-Authorization` custom headers you have set using `headers`.
  proxy: {
    host: '127.0.0.1',
    port: 9000,
    auth: {
      username: 'mikeymike',
      password: 'rapunz3l'
    }
  },

  // `cancelToken` specifies a cancel token that can be used to cancel the request
  // (see Cancellation section below for details)
  cancelToken: new CancelToken(function (cancel) {
  })
}
```

Response Schema

The response for a request contains the following information.

```
{
  // `data` is the response that was provided by the server
  data: {},

  // `status` is the HTTP status code from the server response
  status: 200,

  // `statusText` is the HTTP status message from the server response
  statusText: 'OK',

  // `headers` the headers that the server responded with
  // All header names are lower cased
  headers: {},

  // `config` is the config that was provided to `axios` for the request
  config: {},

  // `request` is the request that generated this response
  // It is the last ClientRequest instance in node.js (in redirects)
  // and an XMLHttpRequest instance the browser
  request: {}
}
```

When using `then`, you will receive the response as follows:

```
axios.get('/user/12345')
  .then(function(response) {
    console.log(response.data);
    console.log(response.status);
    console.log(response.statusText);
    console.log(response.headers);
    console.log(response.config);
  });
```

When using `catch`, or passing a rejection callback as second parameter of `then`, the response will be available through the `error` object as explained in the Handling Errors section.

Config Defaults

You can specify config defaults that will be applied to every request.

Global axios defaults

```
axios.defaults.baseURL = 'https://api.example.com';
axios.defaults.headers.common['Authorization'] = AUTH_TOKEN;
axios.defaults.headers.post['Content-Type'] = 'application/x-www-form-urlencoded';
```

Custom instance defaults

```
// Set config defaults when creating the instance
const instance = axios.create({
  baseURL: 'https://api.example.com'
});

// Alter defaults after instance has been created
instance.defaults.headers.common['Authorization'] = AUTH_TOKEN;
```

Config order of precedence

Config will be merged with an order of precedence. The order is library defaults found in lib/defaults.js, then `defaults` property of the instance, and finally `config` argument for the request. The latter will take precedence over the former. Here's an example.

```
// Create an instance using the config defaults provided by the library
// At this point the timeout config value is `0` as is the default for the library
const instance = axios.create();

// Override timeout default for the library
// Now all requests using this instance will wait 2.5 seconds before timing out
instance.defaults.timeout = 2500;

// Override timeout for this request as it's known to take a long time
instance.get('/longRequest', {
  timeout: 5000
});
```

Interceptors

You can intercept requests or responses before they are handled by `then` or `catch`.

```
// Add a request interceptor
axios.interceptors.request.use(function (config) {
    // Do something before request is sent
    return config;
  }, function (error) {
    // Do something with request error
    return Promise.reject(error);
  });

// Add a response interceptor
axios.interceptors.response.use(function (response) {
    // Do something with response data
    return response;
  }, function (error) {
    // Do something with response error
    return Promise.reject(error);
  });
```

If you may need to remove an interceptor later you can.

```
const myInterceptor = axios.interceptors.request.use(function () {/*...*/});
axios.interceptors.request.eject(myInterceptor);
```

You can add interceptors to a custom instance of axios.

```js
const instance = axios.create();
instance.interceptors.request.use(function () {/*...*/});
```

Handling Errors

```js
axios.get('/user/12345')
  .catch(function (error) {
    if (error.response) {
      // The request was made and the server responded with a status code
      // that falls out of the range of 2xx
      console.log(error.response.data);
      console.log(error.response.status);
      console.log(error.response.headers);
    } else if (error.request) {
      // The request was made but no response was received
      // `error.request` is an instance of XMLHttpRequest in the browser and an instance of
      // http.ClientRequest in node.js
      console.log(error.request);
    } else {
      // Something happened in setting up the request that triggered an Error
      console.log('Error', error.message);
    }
    console.log(error.config);
  });
```

You can define a custom HTTP status code error range using the `validateStatus` config option.

```js
axios.get('/user/12345', {
  validateStatus: function (status) {
    return status < 500; // Reject only if the status code is greater than or equal to 500
  }
})
```

Cancellation

You can cancel a request using a *cancel token*.

> The axios cancel token API is based on the withdrawn cancelable promises proposal.

You can create a cancel token using the `CancelToken.source` factory as shown below:

```js
const CancelToken = axios.CancelToken;
const source = CancelToken.source();

axios.get('/user/12345', {
  cancelToken: source.token
}).catch(function(thrown) {
  if (axios.isCancel(thrown)) {
    console.log('Request canceled', thrown.message);
  } else {
    // handle error
  }
});

axios.post('/user/12345', {
  name: 'new name'
}, {
  cancelToken: source.token
})
```

```
// cancel the request (the message parameter is optional)
source.cancel('Operation canceled by the user.');
```

You can also create a cancel token by passing an executor function to the `CancelToken` constructor:

```
const CancelToken = axios.CancelToken;
let cancel;

axios.get('/user/12345', {
  cancelToken: new CancelToken(function executor(c) {
    // An executor function receives a cancel function as a parameter
    cancel = c;
  })
});

// cancel the request
cancel();
```

> Note: you can cancel several requests with the same cancel token.

Using application/x-www-form-urlencoded format

By default, axios serializes JavaScript objects to `JSON` . To send data in the `application/x-www-form-urlencoded` format instead, you can use one of the following options.

Browser

In a browser, you can use the `URLSearchParams` API as follows:

```
const params = new URLSearchParams();
params.append('param1', 'value1');
params.append('param2', 'value2');
axios.post('/foo', params);
```

> Note that `URLSearchParams` is not supported by all browsers (see caniuse.com), but there is a polyfill available (make sure to polyfill the global environment).

Alternatively, you can encode data using the `qs` library:

```
const qs = require('qs');
axios.post('/foo', qs.stringify({ 'bar': 123 }));
```

Or in another way (ES6),

```
import qs from 'qs';
const data = { 'bar': 123 };
const options = {
  method: 'POST',
  headers: { 'content-type': 'application/x-www-form-urlencoded' },
  data: qs.stringify(data),
  url,
};
axios(options);
```

Node.js

In node.js, you can use the `querystring` module as follows:

```
const querystring = require('querystring');
axios.post('http://something.com/', querystring.stringify({ foo: 'bar' }));
```

You can also use the `qs` library.

Semver

Until axios reaches a `1.0` release, breaking changes will be released with a new minor version. For example `0.5.1`, and `0.5.4` will have the same API, but `0.6.0` will have breaking changes.

Promises

axios depends on a native ES6 Promise implementation to be supported. If your environment doesn't support ES6 Promises, you can polyfill.

TypeScript

axios includes TypeScript definitions.

```
import axios from 'axios';
axios.get('/user?ID=12345');
```

Resources

- Changelog
- Upgrade Guide
- Ecosystem
- Contributing Guide
- Code of Conduct

Credits

axios is heavily inspired by the $http service provided in Angular. Ultimately axios is an effort to provide a standalone `$http`-like service for use outside of Angular.

License

MIT