

Ajax og Axios

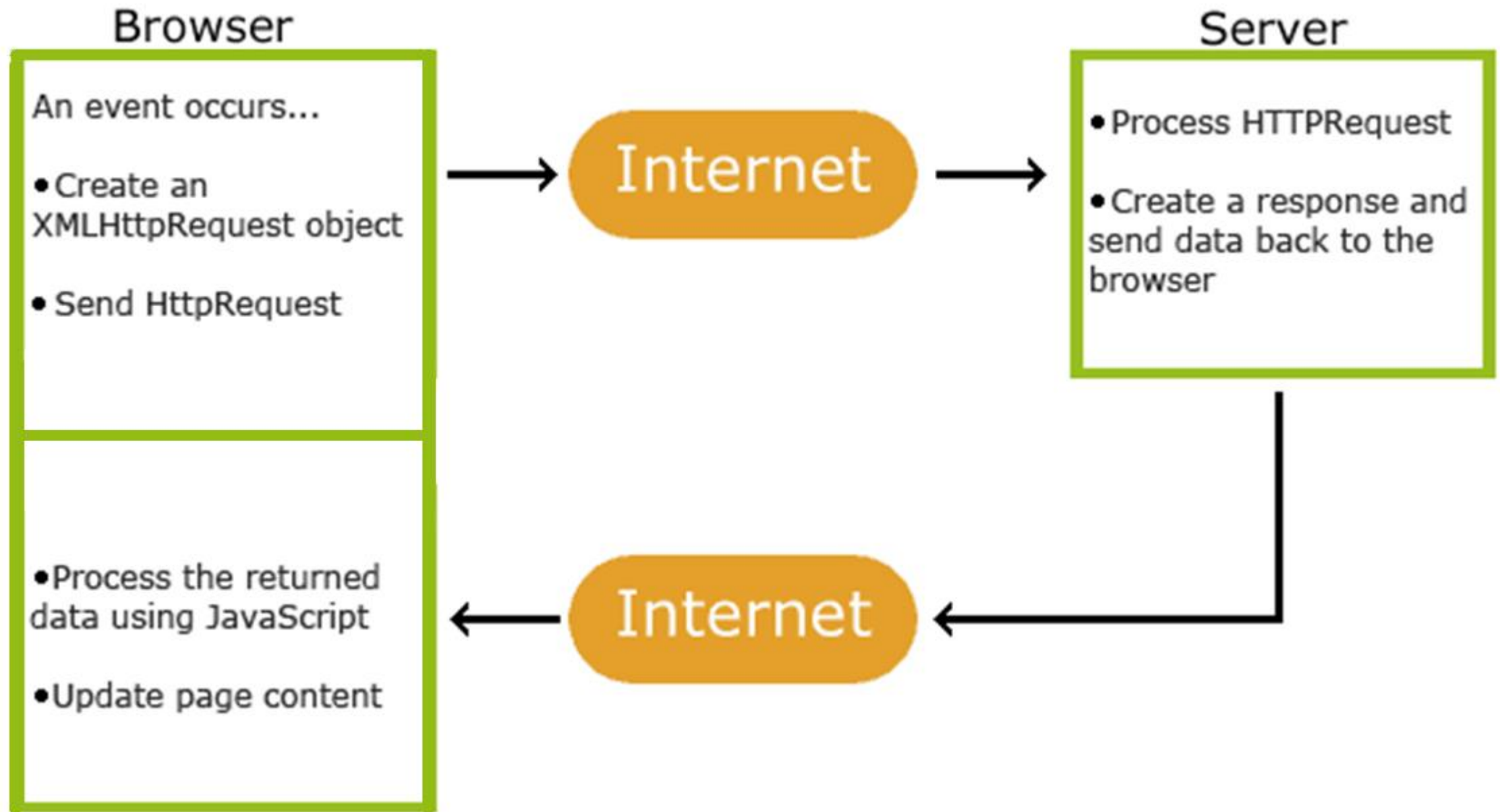
Rolando Gonzalez, 2022

Innhold

- Hva er Ajax?
- Hva er Axios?
- GET, POST, PUT, DELETE

Hva er Ajax?

- Ajax står for Asynchronous JavaScript and XML.
- Ajax er en teknikk som innebærer å gjøre HTTP-kall fra en HTML-fil til en fil eller tjeneste (på en server) for å utføre CRUD-operasjoner; Create, Read, Update and Delete.
- Man kan få resultatet fra et ajax-kall i form av for eksempel JSON, XML eller tekst. Det vanligste er nå JSON i webutviklingssammenheng.



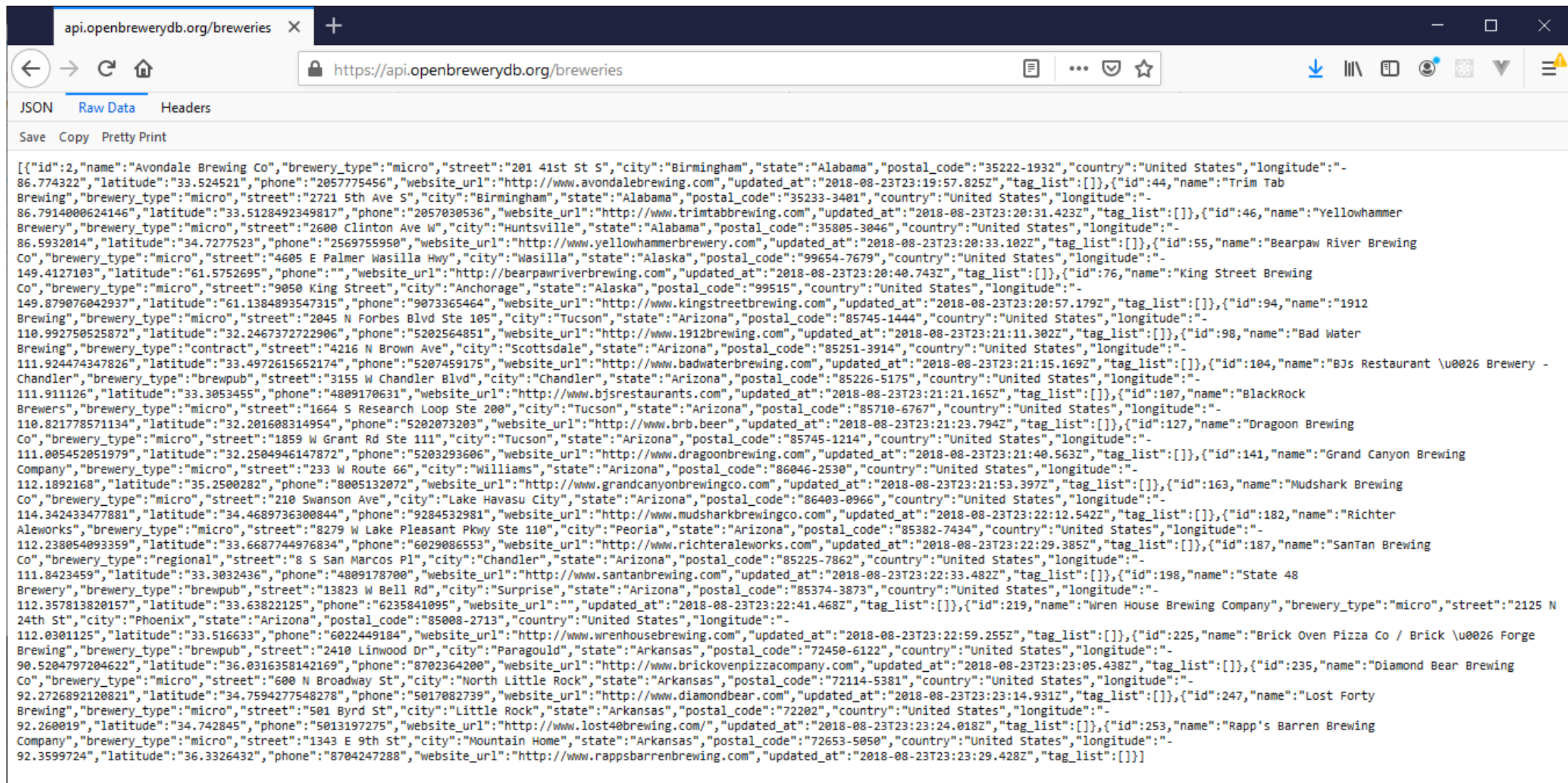
Hva er axios?

- Axios er et JavaScript-bibliotek for å anvende Ajax. Målet er å gjøre det enklere å bruke Ajax versus å anvende ren JavaScript og en smule enklere enn Fetch API som er integrert i nettleserne.
- Installerer med kommando **npm install axios** i terminal/CMD eller via CDN (Content Delivery Network) i et prosjekt.
- For de offisielle «nettsidene» gå her hvor du vil finne instruksjoner på hvordan bruke axios:
 - <https://github.com/axios/axios>

GET, POST, PUT, DELETE

- Det er fire hovedoperasjoner man er interessert i å gjøre med Ajax mot et nettjeneste:
 - GET: Få tak i en eller flere av noe
 - POST: Skal ende i at noe lagres i databasen
 - PUT: Skal ende i at noe i databasen endres
 - DELETE: Skal ende i at noe i databasen slettes

Eksempel på resultat i JSON



The screenshot shows a web browser window with the address bar displaying `https://api.openbrewerydb.org/breweries`. The browser's developer tools are open, showing the JSON response from the API. The response is a large array of objects, each representing a brewery. Each object contains fields such as `id`, `name`, `brewery_type`, `street`, `city`, `state`, `postal_code`, `country`, `longitude`, `latitude`, `phone`, `website_url`, and `updated_at`. The JSON is formatted with line numbers on the left side of the array, starting from 86. The browser's address bar also shows the API endpoint `api.openbrewerydb.org/breweries` and the browser's tabs and navigation buttons.

```
[{"id":2,"name":"Avondale Brewing Co","brewery_type":"micro","street":"201 41st St S","city":"Birmingham","state":"Alabama","postal_code":"35222-1932","country":"United States","longitude":"-86.774322","latitude":"33.524521","phone":"2057775456","website_url":"http://www.avondalebrewing.com","updated_at":"2018-08-23T23:19:57.825Z","tag_list":[]}, {"id":44,"name":"Trim Tab Brewing","brewery_type":"micro","street":"2721 5th Ave S","city":"Birmingham","state":"Alabama","postal_code":"35233-3401","country":"United States","longitude":"-86.7914000624146","latitude":"33.5128492349817","phone":"2057030536","website_url":"http://www.trimtabbrewing.com","updated_at":"2018-08-23T23:20:31.423Z","tag_list":[]}, {"id":46,"name":"Yellowhammer Brewery","brewery_type":"micro","street":"2600 Clinton Ave W","city":"Huntsville","state":"Alabama","postal_code":"35805-3046","country":"United States","longitude":"-86.5932014","latitude":"34.7277523","phone":"2569755950","website_url":"http://www.yellowhammerbrewery.com","updated_at":"2018-08-23T23:20:33.102Z","tag_list":[]}, {"id":55,"name":"Bearpaw River Brewing Co","brewery_type":"micro","street":"4605 E Palmer Wasilla Hwy","city":"Wasilla","state":"Alaska","postal_code":"99654-7679","country":"United States","longitude":"-149.4127103","latitude":"61.5752695","phone":"","website_url":"http://bearpawriverbrewing.com","updated_at":"2018-08-23T23:20:40.743Z","tag_list":[]}, {"id":76,"name":"King Street Brewing Co","brewery_type":"micro","street":"9050 King Street","city":"Anchorage","state":"Alaska","postal_code":"99515","country":"United States","longitude":"-149.879076042937","latitude":"61.1384893547315","phone":"9073365464","website_url":"http://www.kingstreetbrewing.com","updated_at":"2018-08-23T23:20:57.179Z","tag_list":[]}, {"id":94,"name":"1912 Brewing","brewery_type":"micro","street":"2045 N Forbes Blvd Ste 105","city":"Tucson","state":"Arizona","postal_code":"85745-1444","country":"United States","longitude":"-110.992750525872","latitude":"32.2467372722906","phone":"5202564851","website_url":"http://www.1912brewing.com","updated_at":"2018-08-23T23:21:11.302Z","tag_list":[]}, {"id":98,"name":"Bad Water Brewing","brewery_type":"contract","street":"4216 N Brown Ave","city":"Scottsdale","state":"Arizona","postal_code":"85251-3914","country":"United States","longitude":"-111.924474347826","latitude":"33.4972615652174","phone":"5207459175","website_url":"http://www.badwaterbrewing.com","updated_at":"2018-08-23T23:21:15.169Z","tag_list":[]}, {"id":104,"name":"BJs Restaurant \u0026 Brewery - Chandler","brewery_type":"brewpub","street":"3155 W Chandler Blvd","city":"Chandler","state":"Arizona","postal_code":"85226-5175","country":"United States","longitude":"-111.911126","latitude":"33.3053455","phone":"4809170631","website_url":"http://www.bjsrestaurants.com","updated_at":"2018-08-23T23:21:21.165Z","tag_list":[]}, {"id":107,"name":"BlackRock Brewers","brewery_type":"micro","street":"1664 S Research Loop Ste 200","city":"Tucson","state":"Arizona","postal_code":"85710-6767","country":"United States","longitude":"-110.821778571134","latitude":"32.201608314954","phone":"5202073203","website_url":"http://www.brb.beer","updated_at":"2018-08-23T23:21:23.794Z","tag_list":[]}, {"id":127,"name":"Dragoon Brewing Co","brewery_type":"micro","street":"1859 W Grant Rd Ste 111","city":"Tucson","state":"Arizona","postal_code":"85745-1214","country":"United States","longitude":"-111.005452051979","latitude":"32.2504946147872","phone":"5203293606","website_url":"http://www.dragoonbrewing.com","updated_at":"2018-08-23T23:21:40.563Z","tag_list":[]}, {"id":141,"name":"Grand Canyon Brewing Company","brewery_type":"micro","street":"233 W Route 66","city":"Williams","state":"Arizona","postal_code":"86046-2530","country":"United States","longitude":"-112.1892168","latitude":"35.2500282","phone":"8005132072","website_url":"http://www.grandcanyonbrewingco.com","updated_at":"2018-08-23T23:21:53.397Z","tag_list":[]}, {"id":163,"name":"Mudshark Brewing Co","brewery_type":"micro","street":"210 Swanson Ave","city":"Lake Havasu City","state":"Arizona","postal_code":"86403-0966","country":"United States","longitude":"-114.342433477881","latitude":"34.4689736300844","phone":"9284532981","website_url":"http://www.mudsharkbrewingco.com","updated_at":"2018-08-23T23:22:12.542Z","tag_list":[]}, {"id":182,"name":"Richter Aleworks","brewery_type":"micro","street":"8279 W Lake Pleasant Pkwy Ste 110","city":"Peoria","state":"Arizona","postal_code":"85382-7434","country":"United States","longitude":"-112.238054093359","latitude":"33.6687744976834","phone":"6029086553","website_url":"http://www.richteralworks.com","updated_at":"2018-08-23T23:22:29.385Z","tag_list":[]}, {"id":187,"name":"SanTan Brewing Co","brewery_type":"regional","street":"8 S San Marcos Pl","city":"Chandler","state":"Arizona","postal_code":"85225-7862","country":"United States","longitude":"-111.8423459","latitude":"33.3032436","phone":"4809178700","website_url":"http://www.santanbrewing.com","updated_at":"2018-08-23T23:22:33.482Z","tag_list":[]}, {"id":198,"name":"State 48 Brewery","brewery_type":"brewpub","street":"13823 W Bell Rd","city":"Surprise","state":"Arizona","postal_code":"85374-3873","country":"United States","longitude":"-112.357813820157","latitude":"33.63822125","phone":"6235841095","website_url":"","updated_at":"2018-08-23T23:22:41.468Z","tag_list":[]}, {"id":219,"name":"Wren House Brewing Company","brewery_type":"micro","street":"2125 N 24th St","city":"Phoenix","state":"Arizona","postal_code":"85008-2713","country":"United States","longitude":"-112.0301125","latitude":"33.516633","phone":"6022449184","website_url":"http://www.wrenhousebrewing.com","updated_at":"2018-08-23T23:22:59.255Z","tag_list":[]}, {"id":225,"name":"Brick Oven Pizza Co / Brick \u0026 Forge Brewing","brewery_type":"brewpub","street":"2410 Linwood Dr","city":"Paragould","state":"Arkansas","postal_code":"72450-6122","country":"United States","longitude":"-90.5204797204622","latitude":"36.0316358142169","phone":"8702364200","website_url":"http://www.brickovenpizzacompany.com","updated_at":"2018-08-23T23:23:05.438Z","tag_list":[]}, {"id":235,"name":"Diamond Bear Brewing Co","brewery_type":"micro","street":"600 N Broadway St","city":"North Little Rock","state":"Arkansas","postal_code":"72114-5381","country":"United States","longitude":"-92.2726892120821","latitude":"34.7594277548278","phone":"5017082739","website_url":"http://www.diamondbear.com","updated_at":"2018-08-23T23:23:14.931Z","tag_list":[]}, {"id":247,"name":"Lost Forty Brewing","brewery_type":"micro","street":"501 Byrd St","city":"Little Rock","state":"Arkansas","postal_code":"72202","country":"United States","longitude":"-92.260019","latitude":"34.742845","phone":"5013197275","website_url":"http://www.lost40brewing.com","updated_at":"2018-08-23T23:23:24.018Z","tag_list":[]}, {"id":253,"name":"Rapp's Barren Brewing Company","brewery_type":"micro","street":"1343 E 9th St","city":"Mountain Home","state":"Arkansas","postal_code":"72653-5050","country":"United States","longitude":"-92.3599724","latitude":"36.3326432","phone":"8704247288","website_url":"http://www.rappsbarrenbrewing.com","updated_at":"2018-08-23T23:23:29.428Z","tag_list":[]}]
```

Kommentar til eksempelresultat

- JSON-resultater kan være ganske forskjellige fra løsning til løsning, siden dataene kan være ganske forskjellige.
- Man trenger å gjøre litt utforskning først for å forstå resultatet ordentlig. Dette kan man gjøre ved å se på resultatet direkte i JSON-format, eller i noen tilfeller ved gå inn på nettsider som er dedikert til å gi informasjon om det.
- I en god del tilfeller er resultatet et array med objekter. Andre ganger inneholder resultatet først metadata om resultatet, og deretter et objekt som inneholder et array med objekter.

References

- Mozilla (2020), Ajax, <https://developer.mozilla.org/en-US/docs/Web/Guide/AJAX>, [last accessed 11.10.22]
- Denne mest bare for å lese om hva Axios er: w3schools (2020), Ajax Intro, https://www.w3schools.com/js/js_ajax_intro.asp, [last accessed 11.10.22]