Open API JavaScript Wrapper

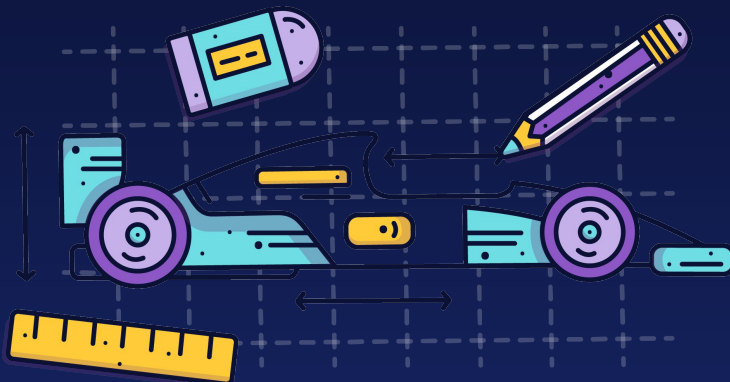## With TypeScript Definitions...

Hello! 👋

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Open API JavaScript Wrapper
- Get up and running fast so that you can build cool stuff 🚀
- Don't reinvent the wheel with managing access tokens…
- `lowBarrierToEntry === happyDevs`

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How it works

How it works

DEVELOPER

- **Configure with Credentials**

- **Call functions to fetch data**
  Simplified by the wrapper...

  (See next slide...)

WRAPPER CLASS

- **Fetches Access Token to be used in wrapper functions**

- **Automatically refreshes Access Token when 1 minute away from expiry.**

- **Waits for Access Token to be retrieved before running data fetching functions**

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Usage

```javascript
import api from 'investec-openapi'   6K (gzipped: 2K)

api.configure({
  // web app CORS issue workaround (optional)
  proxyUrl: 'https://young-thicket-56542.herokuapp.com/',

  clientId: 'sneakysneaky', // required
  secret: 'sneakysneaky' // required
})

api.getAccounts().then(accounts => console.log(accounts))
// or you could use async-await

api
  .getAccountBalance({ accountId: '123456789' })
  .then(balance => console.log(balance))

api
  .getAccountTransactions({ accountId: '123456789' })
  .then(transactions => console.log(transactions))
```

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How it works

```
class InvestecOpenAPI {
  private proxyUrl?: string
  private clientId?: string
  private secret?: string
  private accessToken?: string
  private fetchingAccessToken?: boolean

  configure({ proxyUrl, clientId, secret }: Config) {
    this.fetchingAccessToken = true
    this.proxyUrl = proxyUrl ?? ''
    this.clientId = clientId
    this.secret = secret

    this.getAccessToken()
  }
}
```

```
private async getAccessToken(): Promise<void> {
  this.checkConfigured()
  try {
    const res = await fetch(
      `${this.proxyUrl}https://openapi.investec.com/identity/v2/oauth2/token`,
      {
        body: 'grant_type=client_credentials&scope=accounts',
        headers: {
          Authorization: `Basic ${btoa(this.clientId + ':' + this.secret)}`,
          'Content-Type': 'application/x-www-form-urlencoded',
        },
        method: 'POST',
      }
    )
    const { access_token, expires_in } = await res.json()
    this.accessToken = access_token
    this.fetchingAccessToken = false
    setTimeout(() => this.getAccessToken(), expires_in * 1000 - 60 * 1000)
  } catch (ex) {
    console.error('Something went wrong!', { ex })
    console.warn(
      "If you're build a web app, make sure your `proxyUrl` is setup properly.",
      this.proxyUrl
    )
  }
}
```

Get Involved!

Challenges encountered

- **Web App CORS errors -** solved with `proxyUrl`
  - Might be nice to get some dedicated proxy hosted for that, better solutions?

- **Writing pretty README files are a mission -** help wanted!

- **Response TS Definitions match docs**
  - But the actually responses don't match docs
  - Good first issue if someone would like to make TS response definitions match the "actual" output.

Get in touch

- I'm active on **OfferZen Slack Community** *@barrymichaeldoyle*

- **REPO:** *https://github.com/barrymichaeldoyle/investec-openapi*
  - Link is on GitLab Community Projects
  - Logging issues are very much welcome
  - PRs also welcome :D
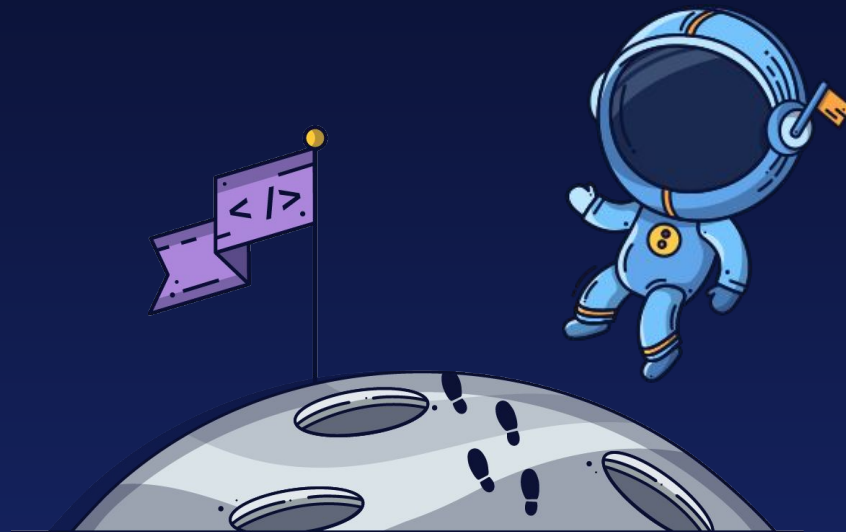
Next Steps

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Next steps

- **Want to build a Swagger like React App to act as a DEV Sandbox.**
  - This should help me, and maybe others with ideas :)

- **Ultimately want to try out a bunch of app ideas after the Sandbox App...**
  - But along the way my primary goal is to simplify the lives of fellow devs :D

Questions

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