

LoopBack 4: Build amazing APIs

A platform for building APIs and microservices in Node.js

Björn Strobach - Node.js Meetup Leipzig - July 2019

Who is this guy?



Software Developer [@MrAppWare](#), Magdeburg

GitHub: [@bstrobach](#)

Twitter: [@bstrobach](#)

Xing: <http://xing.to/bstrobach>

Slides & Code: <https://github.com/bstrobach/loopback-nodejs-leipzig>

What are we talking about?

LoopBack - What?

“

LoopBack is a highly extensible, open-source Node.js framework based on Express that enables you to quickly create APIs and microservices composed from backend systems such as databases and SOAP or REST services.

LoopBack Docs

Cool, who did it?

StrongLoop - An IBM Company

Based in California

Highly active in Node.js Foundation

Published LoopBack in September 2013

Acquired by IBM in September 2015

Since then: LoopBack 3 and 4 released

And why should I use it?

One source of truth

API composition layer

OpenAPI standards

Extensibility

Modern technologies

Nice, tell me more about concepts

Application

Server

Context

Binding

Dependency Injection

Controller

Interceptors

Route

Sequence

Model

Data Sources

Repository

Relation

Decorator

Component

Controllers?

A class that implements operations defined by an application's API

Implements an applications business logic

Acts as bridge between the HTTP/REST API and domain/database models

Model?

Describes business domain objects

Usually defines a list of properties with name, type, and other constraints

Can be used for data exchange on the wire or between different systems

Data Sources?

A config for a Connector instance that represents data in an external system

LoopBack supports many different external system, e.g.

In-memory DB, Microsoft SQL, Oracle, Redis, MongoDB, PostgreSQL, ...

Repositories?

Represents a specialized service interface that provides strong-typed data access (for example, CRUD) operations of a domain model against the underlying database or service.

Easy, how can I use it?

Bottom-up

Programmatic, code-first approach, export an OAS

Top-Down

Use the CLI, scaffold application and generate artifacts

CLI? Like the Angular CLI?

Provides CLI tools to help get started quickly

Generates applications and installs their dependencies

Provides optional installation of recommended dependencies

Helps generating artifacts (Controller, DataSource, Model, Repository, [...])

Wow, how can I start developing?

1. Install LoopBack 4 CLI

```
$ npm i -g @loopback/cli
```

2. Create a new LoopBack application

```
$ lb4 app my-app [--yes]
```

3. Starting the project

```
$ cd my-app && npm start
```

That's all.
(almost...)

Demo

Q & A

Thank you.

Useful links

[LoopBack.io](#)

[LoopBack4 docs](#)

[LoopBack on GitHub](#)

[Key concepts](#)

[Bottom up approach - Code first](#)

[Top-down approach - Design first](#)

[Comprehensive E-Commerce platform example](#)