

المبرمج المناسب Le bon développeur 

#Micro-Services #Q&A #Training
networks #Online Events #TechEvent

MASTERING MICRO-SERVICES: A NESTJS WORKSHOP

A Live Interactive Workshop

Join us for an exclusive Facebook Live event where we delve deep into the world of micro-services architecture with NestJS.

20

April
07:00 PM



Nest.js , Microservices and Monorepo

By

Assidi Wassim
Ben Belgacem Talel

RBK
Le bon développeur A small circular icon containing the Tunisian flag's red and white colors.

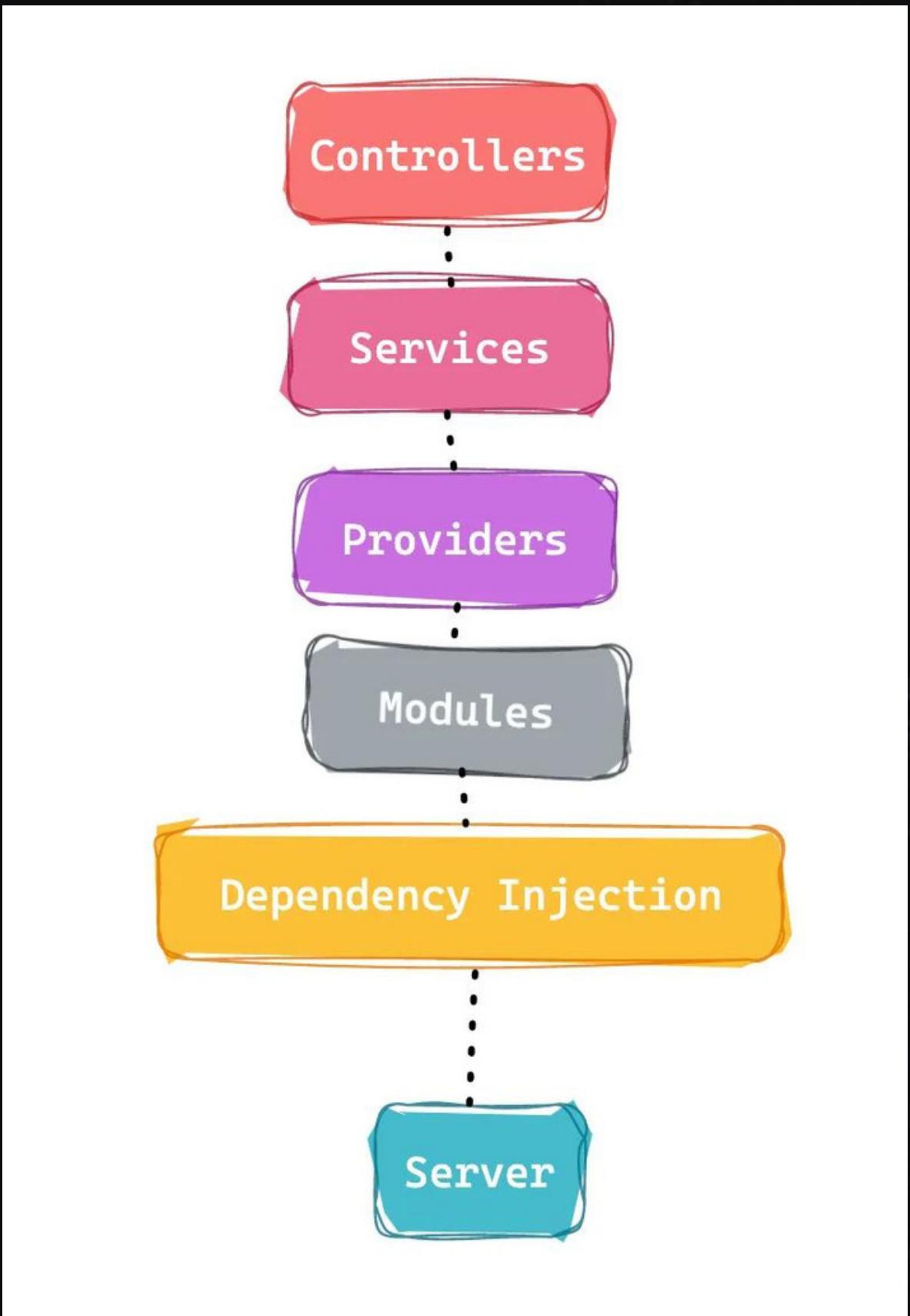
Introduction

**Nest (NestJS) is a framework for building efficient,
scalable Node.js server-side applications.**

**It uses progressive JavaScript,
is built with and fully supports TypeScript**



Architecture



Getting Started

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

```
$ nest new project-name
```

Docs : <https://docs.nestjs.com/microservices/basics>



Why Microservices ?





Andrew Bennet

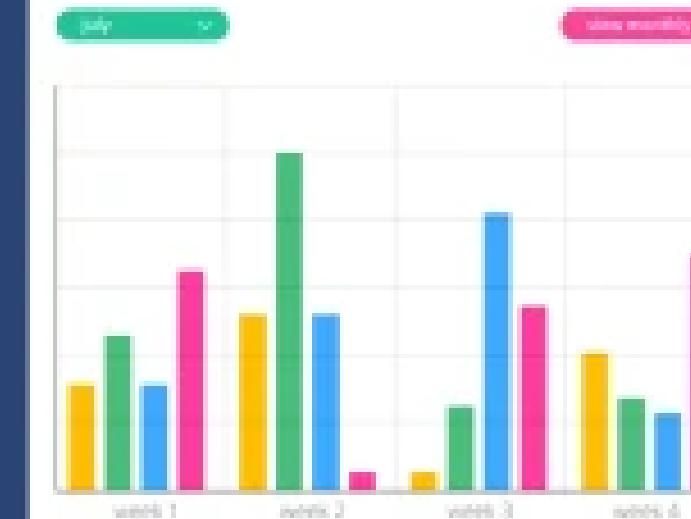
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- Calendar
- Inbox 7
- Widget
- Tasks 4
- Profile
- Write post
- Pages
- Chart
- Social App
- Global Setting

DASHBOARD

Welcome back, Andrew

This week income : \$ 1250

July (View monthly)



| Item | Sold |
|------------------|------|
| Item #1 sold | 150 |
| Item #2 sold | 110 |
| Item #3 sold | 130 |
| Item #4 sold | 120 |
| Total items sold | 510 |

< JULY 2018 >

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recent orders

| Client | Order Number | Date Order | Status |
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| Mr. Daniels | #1293078 | 11-07-18 | Completed |
| Mr. Connery | #1293079 | 11-07-18 | Completed |
| Mr. Vargas | #1293080 | 11-07-18 | Inactive |
| Mr. Donny | #1293081 | 11-07-18 | In Progress |
| Mr. Mark | #1293082 | 11-07-18 | Pending |
| Mr. John | #1293083 | 11-07-18 | Completed |

recent comment

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Read more

recent contacts

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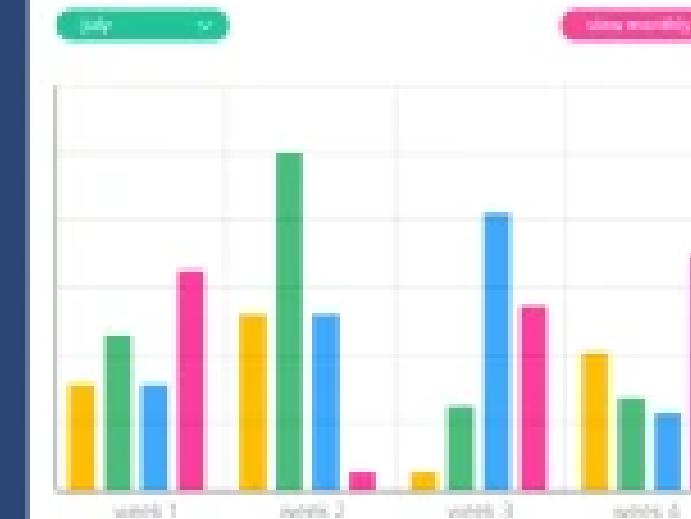
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Read more

contacts

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|  Name of contact name@email.com +1234567890 |  Name of contact name@email.com +1234567890 |



Andrew Bennet

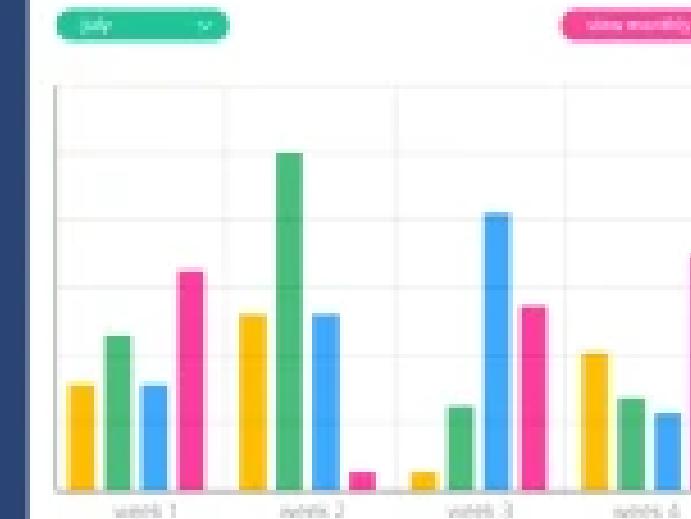
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recent comment

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Read more

contacts

| Name of contact | Phone number |
|-----------------|--------------|
| Name of contact | 1234567890 |



Welcome back, Andrew

Andrew Bennet

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DASHBOARD

Welcome back, Andrew

This week income : \$ 1250

July (View monthly)



| Item ID | Item Name | Quantity Sold |
|------------------|--------------|---------------|
| Item #1 | Smartphone A | 150 |
| Item #2 | Smartphone B | 100 |
| Item #3 | Smartphone C | 120 |
| Item #4 | Smartphone D | 170 |
| Total Items Sold | | 540 |

recent orders

| Client | Order Number | Date Order | Status |
|-------------|--------------|------------|-------------|
| Mr. Daniels | #1293078 | 11-07-18 | Completed |
| Mr. Connery | #1293079 | 11-07-18 | Completed |
| Mr. Vangel | #1293080 | 11-07-18 | Inactive |
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| Mr. Mark | #1293082 | 11-07-18 | Denied |
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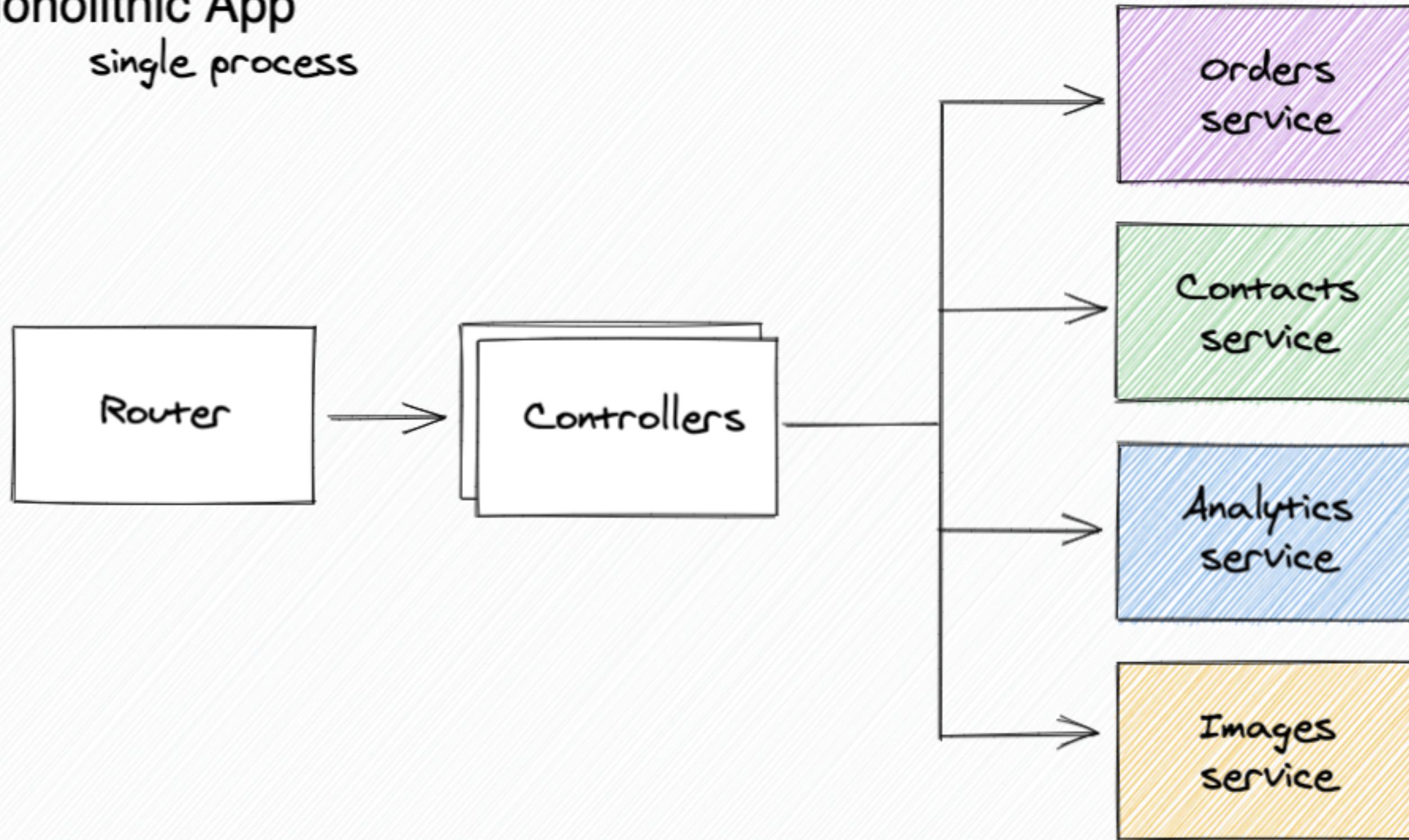
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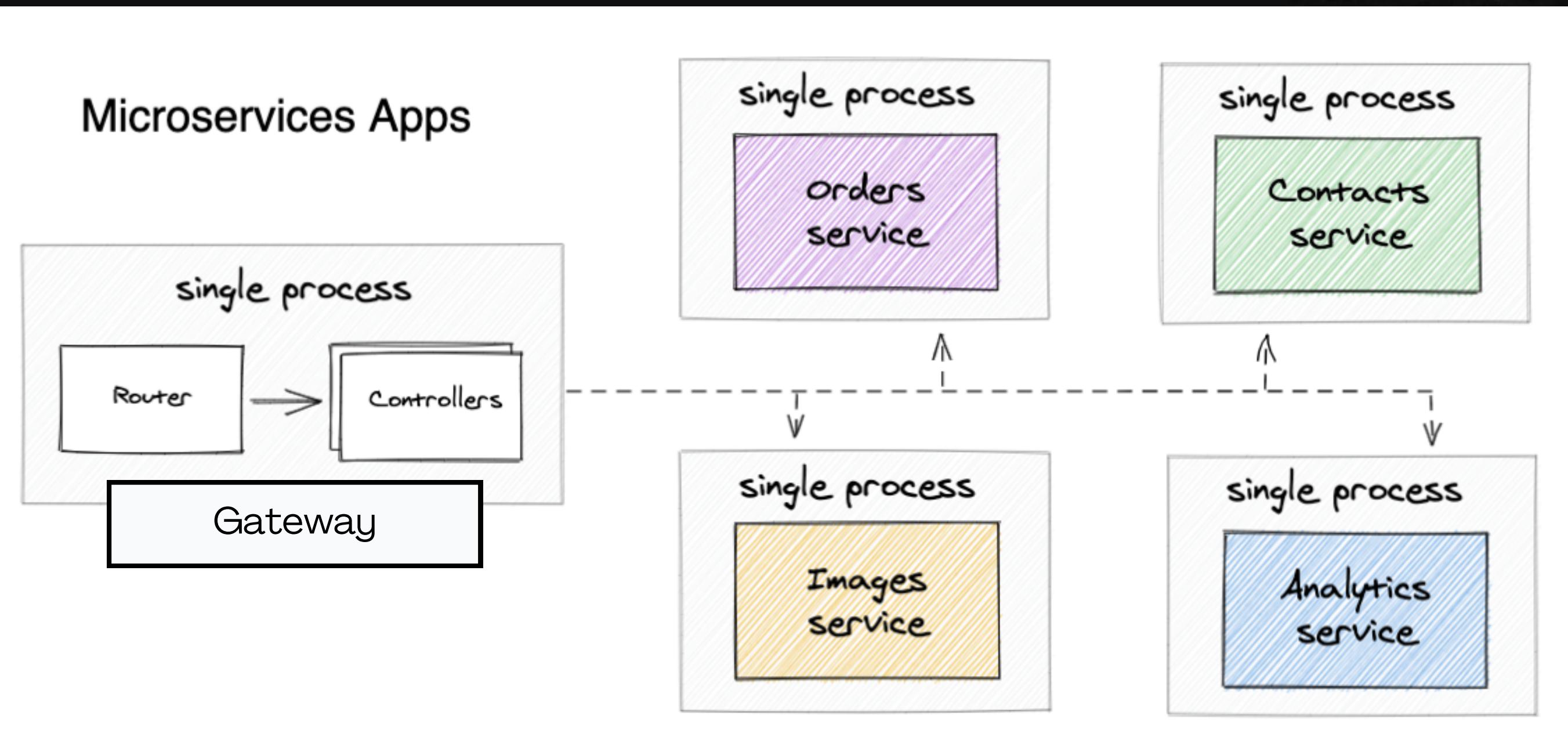
| Name of contact | Phone number |
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| Name of contact | +1234567890 |

Monolithic App

single process



Microservices Apps



Advantages

Code reuse

Each service can serve many apps

Scalable R&D

Each service can be managed by a separate team

Separate repositories, testing & deployment schedule

Resources

Easier for DevOps to manage the load separately

Scale each process individually

Some services are more popular than others

How ?



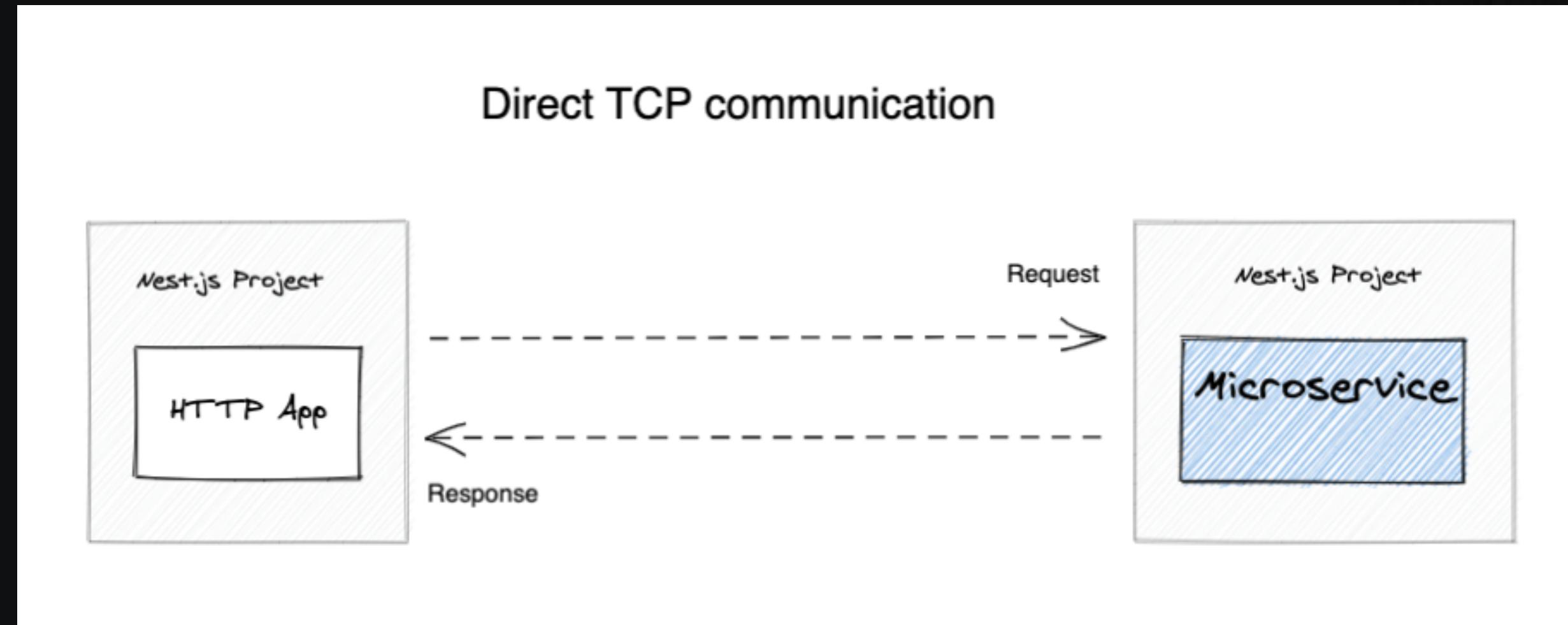
Getting Started

```
$ npm i --save @nestjs/microservices
```

Docs : <https://docs.nestjs.com/microservices/basics>

Supported Transports

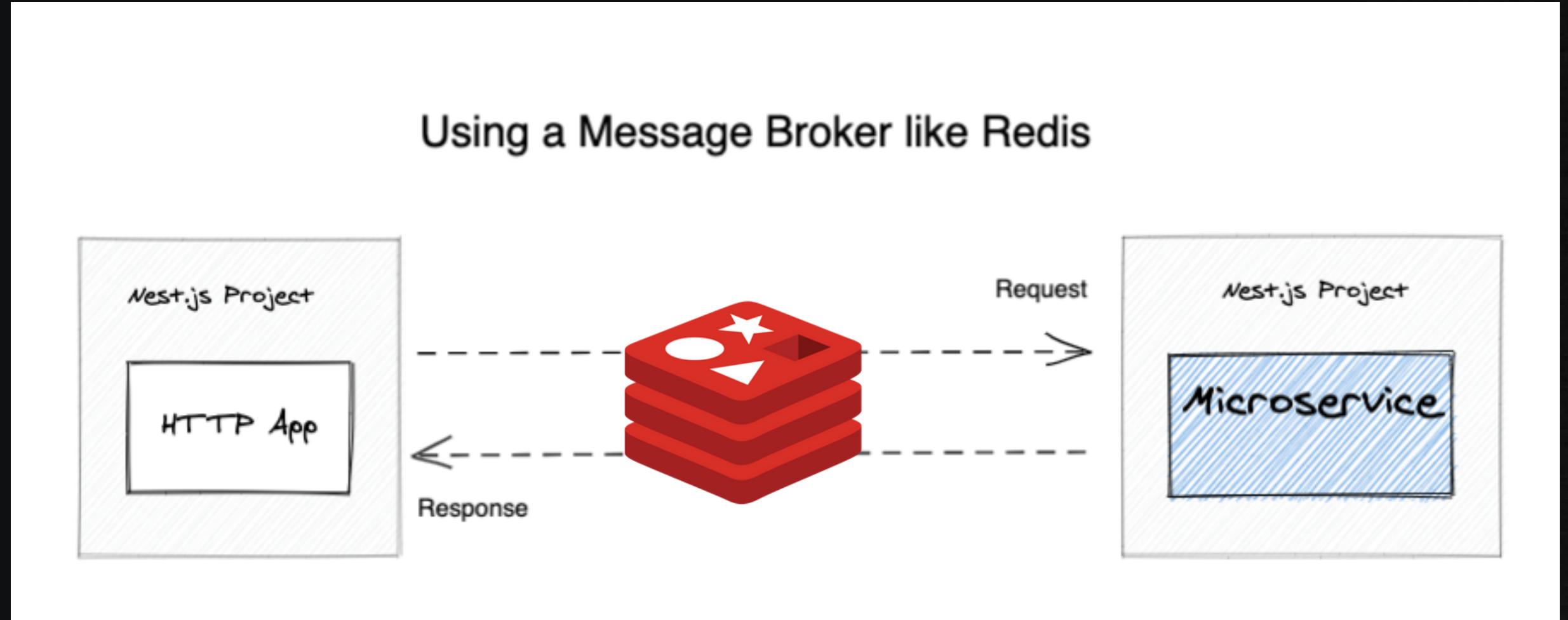
- ◆ **Basic TCP** — Direct
- ◆ **Redis**
- ◆ **MQTT**
- ◆ **NATS**
- ◆ **RabbitMQ**
- ◆ **Kafka**
- ◆ **gRPC** — Remote
Procedure call



◆ Tight coupling

The client app needs to know about the microservice existence and how to contact it. This info will be stored in config files...

When you have dozens or hundreds of microservices, it becomes a problem as things move and change all the time...



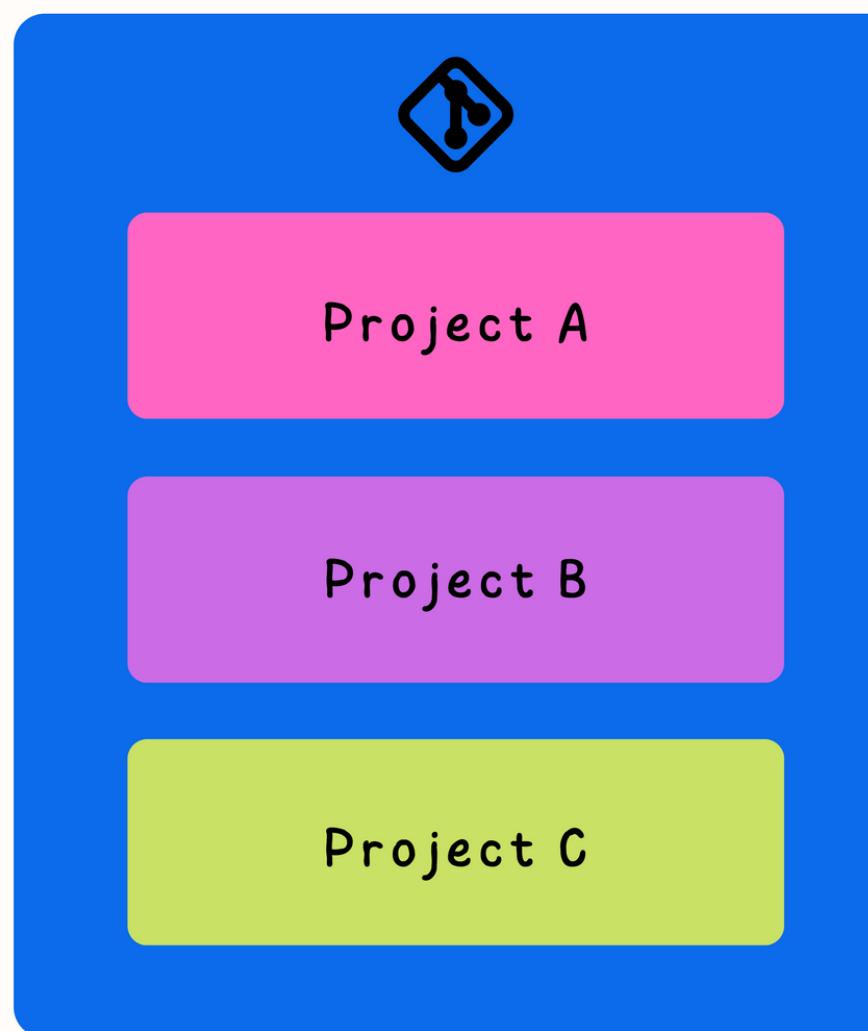
◆ Loose coupling

A message broker like Redis helps us decouple the different microservices from our apps. Managing many microservices becomes a lot easier when we route all of our communication through a single address. That goes for monitoring as well...

Why Monorepo ?



Monorepo



Multi-repo



Monorepo

A monorepo is a single repository containing multiple distinct projects, with well-defined relationships.

How ?



Monorepo tools

How do they compare? let's see how each tools answer to each features.

Bazel

Gradle

Lage

Lerna

moon

Nx

Pants

Rush

Turborepo

Getting Started With Nestjs Workspaces

```
$ nest new my-project
```

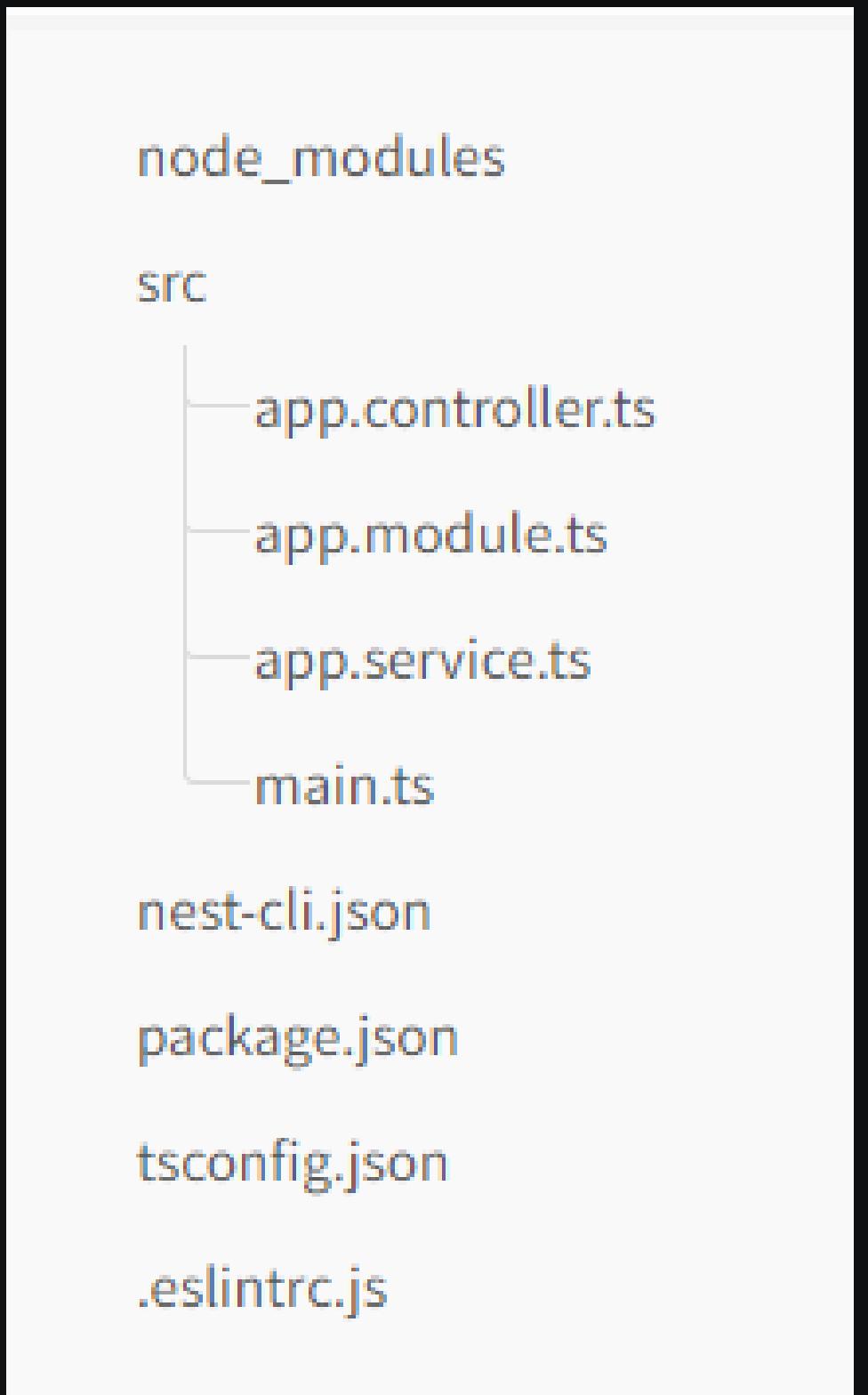
```
$ cd my-project
```

```
$ nest generate app my-app
```

Docs : <https://docs.nestjs.com/cli/monorepo>



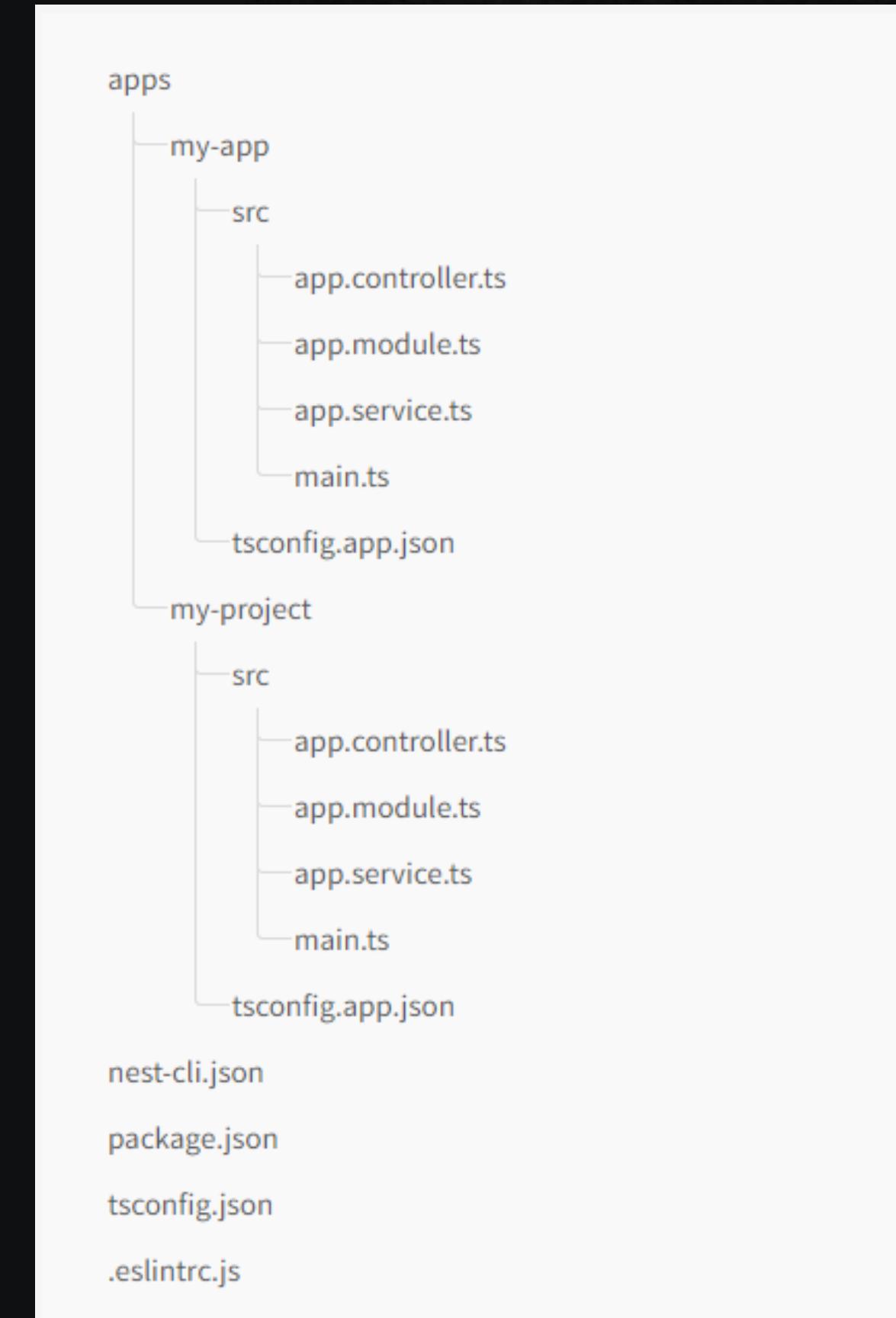
Before



Before



After



Demo Time

