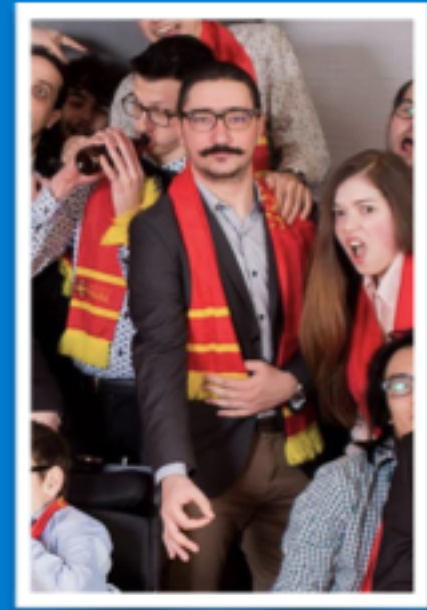# NODE, TS & IOC

MED MOUINE

ABOUT ME

- ➤ Third year SE student
- ➤ Currently dev @ INGENO
- ➤ Teaching assistant @ Web

- ➤ Ex-dev @ QOHASH inc.
- ➤ Ex-dev intern @ Ticketmaster
- ➤ Ex-CSEC Analyst intern @ CNESST

- ➤ ASETIN
- ➤ CFI
- ➤ CS Games

WHY USE TYPESCRIPT

➤ Pros :

    ➤ Trendy

    ➤ NPM community

    ➤ JS + OO/Typed languages advantages

    ➤ Flexibility

➤ Cons :

    ➤ NPM community

JS VS TS

```js
JS helloWorld.js

1    var printHelloWorld = () => {
2        console.log('Hello world !')
3    }
4
5    printHelloWorld()
6
```

JS VS TS

```ts
TS  helloWorld.ts

1    /* tslint:disable */
2    var printHelloWorld = () => {
3        console.log('Hello world !')
4    }
5
6    printHelloWorld()
7
```
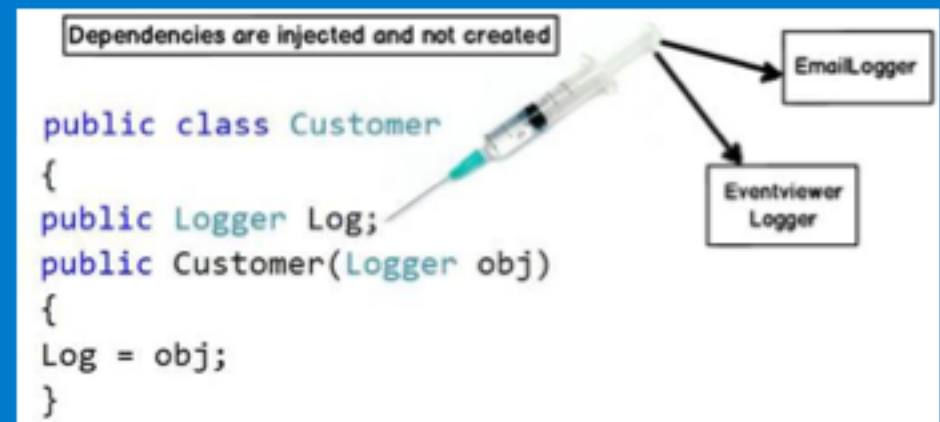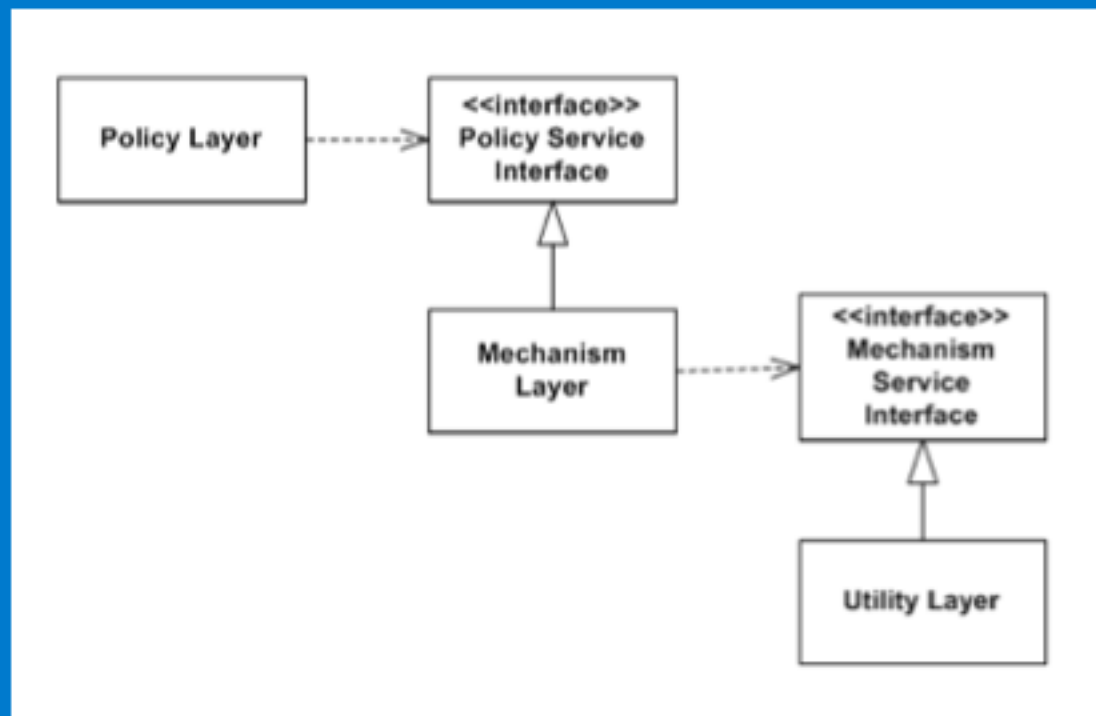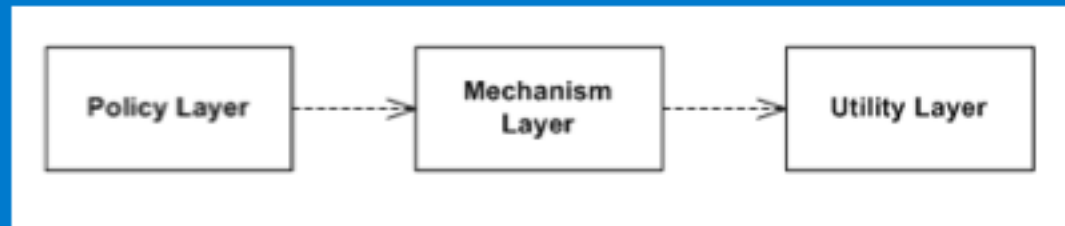
IOC

- ➤ Main goal :
  - ➤ ↑Cohesion, ↓Coupling
  - ➤ ↑Maintainability & openness to change
- ➤ Implemented in several ways
  - ➤ Event based approach
  - ➤ Delegates
  - ➤ DI
  - ➤ Etc…


```
Dependencies are injected and not created

public class Customer
{
public Logger Log;
public Customer(Logger obj)
{
Log = obj;
}
}
```

EmailLogger

Eventviewer Logger

- ➤ Hollywood Principle
  - ➤ "Don't call us we will call you"

#DROP TON COUPLAGE

IOC VS DEPENDENCY INJECTION

"Inversion of Control is too generic a term, and thus people find it confusing. As a result with a lot of discussion with various IoC advocates we settled on the name Dependency Injection."

- Martin Flower

TYPESCRIPT AND IDC

- Inversify

  - inversify.io

- Typescript IoC

  - github.com/thiagobustamante/typescript-ioc

- Awilix

  - github.com/jeffijoe/awilix

DEMO

RESORCES

- samueleresca.net/2016/08/solid-principles-using-typescript/

- martinfowler.com/articles/injection.html

- github.com/inversify/InversifyJS

- github.com/inversify/inversify-express-utils

- github.com/medmouine/inversify-starter

- github.com/medmouine/inversify-workshop

- Clean code — Robert Cecil Martin

- stackoverflow.com

QUESTIONS?