TYPESCRIPT

Hello

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TYPESCRIPT

TypeScript rozszerza JavaScript o możliwość typowania. Jesteśmy w stanie wyłapać więcej błędów zanim oprogramowanie trafi na produkcję.

What does TypeScript give us?

1. Facilitates control over the application
2. Better code readability
3. Force smaller functions
4. Hints in the code editor
5. Validates types during compilation
6. Each JS code is a valid TS code
7. TS is finally compiled into JS

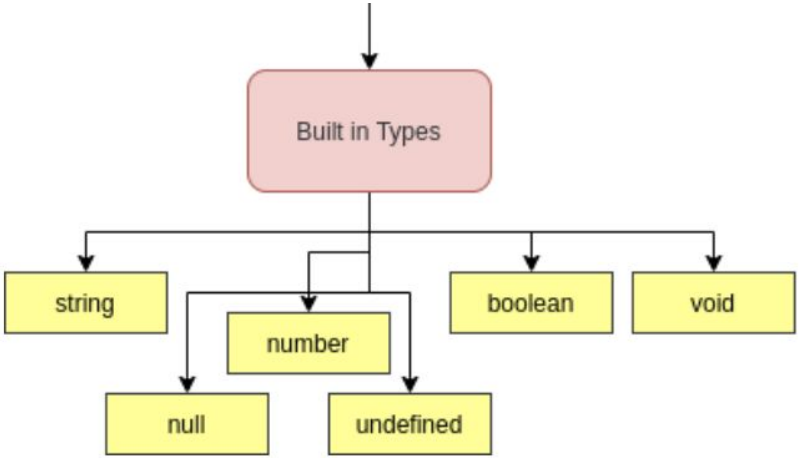
What are the disadvantages?

1. It slows down software release time
2. Additional configuration at the start of the project

Basic types

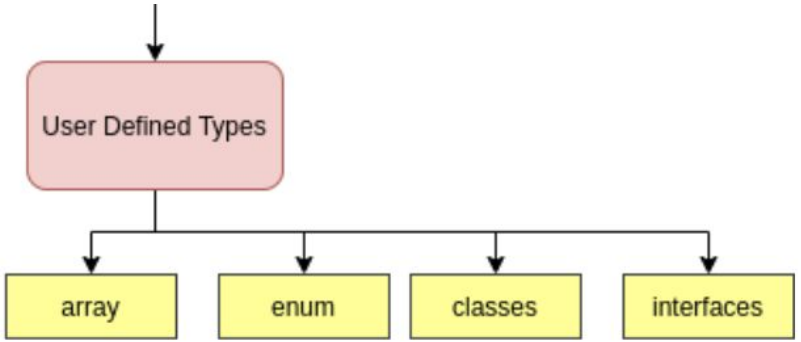
- string
- number
- boolean
- void
- null
- undefined

- never
- any
- unknown



Complex types

- array
- enum
- classes
- interfaces



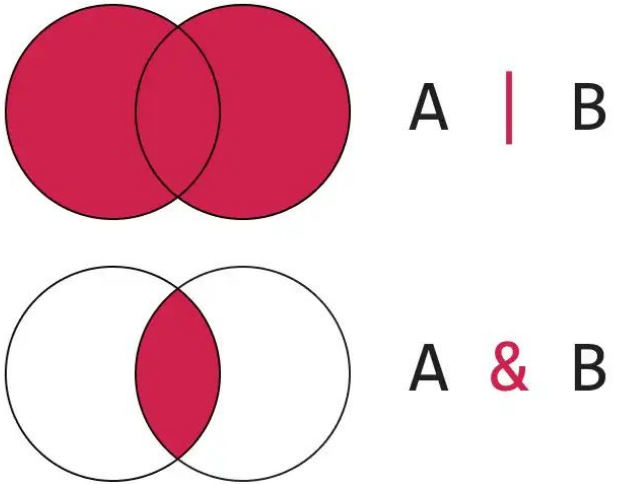
Union & Intersection

Union

type C = type A | type B

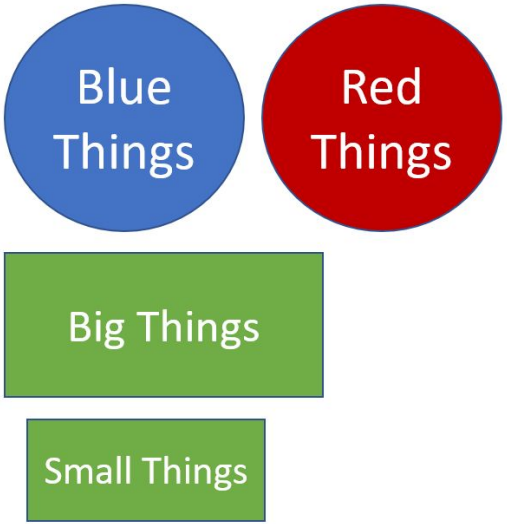
Intersection

type C = type A & type B

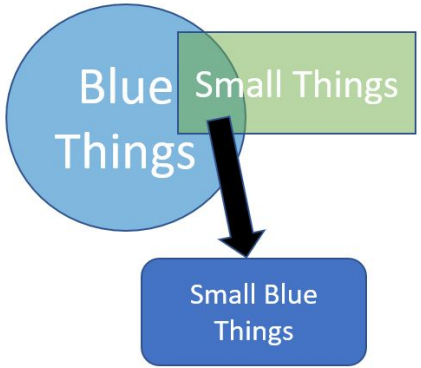


Union & Intersection

Consider classifying objects four ways: blue, red, big, and small

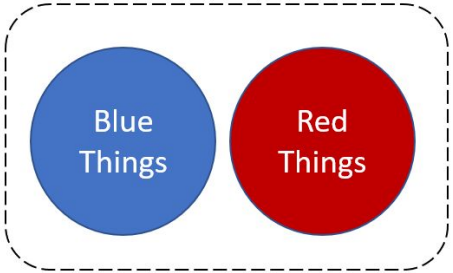


If we *intersect* **blue** with **small**, we get a new set:



The *intersection* of these sets has the *union* of its properties

If we *union* **blue** with **red**, we get a new set:



Blue or Red Things

The *union* of these sets has the *intersection* of its properties, which in this case is empty

Generic types

If we want to create a reusable type, but one element changes for example, then you can use a generic type.

```
identity<Type>(arg: Type): Type {
 return arg;
}
```

Typing tools

Required
Partial
Pick
Omit
…

https://www.typescriptlang.org/docs/handbook/utility-types.html

```
type PartialCars = Partial<Cars>;

type RequiredUser = Required<User>;

type PickCars = Pick<Cars, 'model'>

type OmitCars = Omit<Cars, 'id'>
```

Thanks

You can find me:

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https://github.com/krichert