Intro to TypeScript

What is a type?

- A type is a kind of data. JavaScript has many different types of data: strings, numbers, Booleans, arrays, objects, undefined, and more.
- A **type** is abstract, not concrete.
 - 5 is a value, **number** is a type.
 - true is a value, **boolean** is a type.
 - "Hello" is a value, **string** is a type.

TypeScript is JavaScript with syntax for types.

TypeScript is a strongly typed programming language that builds on JavaScript, giving you better tooling at any scale.

Try TypeScript NowOnline or via npm

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Editor Checks Auto-complete Interfaces JSX

const user = {
  firstName: "Angela",
  lastName: "Davis",
  role: "Professor",
}

console.log(user.name)

Property 'name' does not exist on type '{ firstName: string; lastName: string; role: string; }'.
```

What is a compiler?

- TypeScript does not run in our web browser. We only use the language in our code editor for development. TS exists for the benefit of the developer.
- A compiler is a piece of software that converts TypeScript to JavaScript so that it runs in our browser.

www.typescriptlang.org/play