

Занятие #1

Введение в Typescript

Вставить текст

Ссылки

<https://www.typescriptlang.org/>

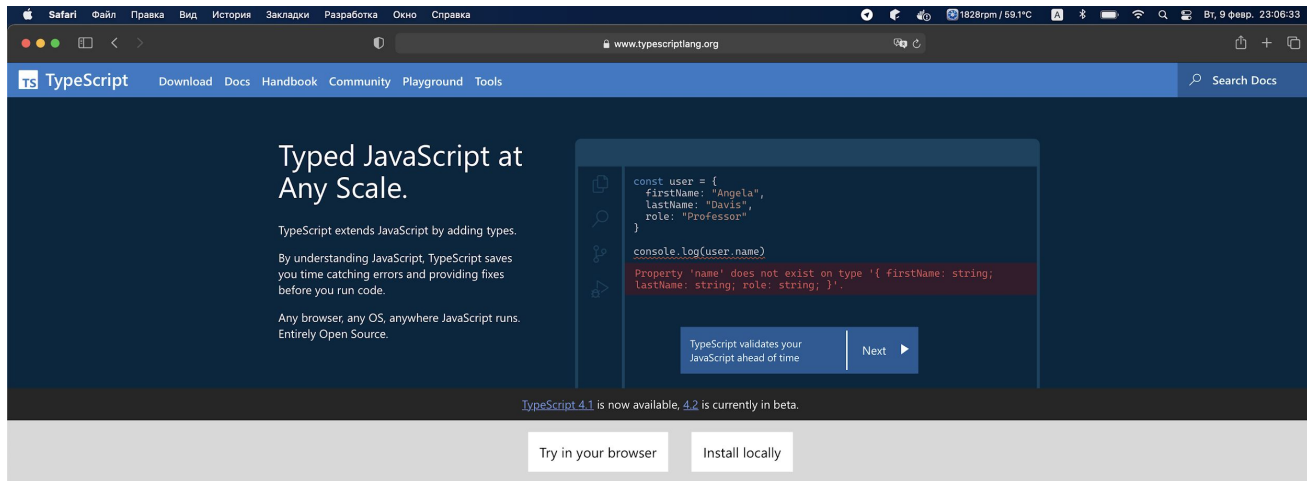
<https://developer.mozilla.org/ru/docs/Web/JavaScript/Guide>

<https://www.npmjs.com/package/typescript>

<https://github.com/VladimirZubavlenko/web2.0>



Typed JavaScript at Any Scale.



Typed JavaScript at Any Scale.

TypeScript extends JavaScript by adding types.

By understanding JavaScript, TypeScript saves you time catching errors and providing fixes before you run code.

Any browser, any OS, anywhere JavaScript runs. Entirely Open Source.

```
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; }'.

TypeScript validates your JavaScript ahead of time

Next

TypeScript 4.1 is now available, 4.2 is currently in beta.

Try in your browser

Install locally

What is TypeScript?

JavaScript and More

TypeScript is an open-source language which builds on JavaScript, one of the world's most used tools, by adding static type definitions.

Types provide a way to describe the shape of an object, providing better documentation, and allowing TypeScript to validate that your code is working correctly.

A Result You Can Trust

All valid JavaScript code is also TypeScript code. You might get type-checking errors, but that won't stop you from running the resulting JavaScript. While you can go for stricter behavior, that means you're still in control.

TypeScript code is transformed into JavaScript code via the TypeScript compiler or [Babel](#).

Gradual Adoption

Adopting TypeScript is not a binary choice, you can start by annotating existing JavaScript with JSDoc, then switch a few files to be checked by TypeScript and over time prepare your codebase to convert completely.

TypeScript's type inference means that you don't have to annotate your code until you



Установка

```
npm install -g typescript
```



TypeScript: Статическая проверка типов

sample_0.js

sample_0.ts



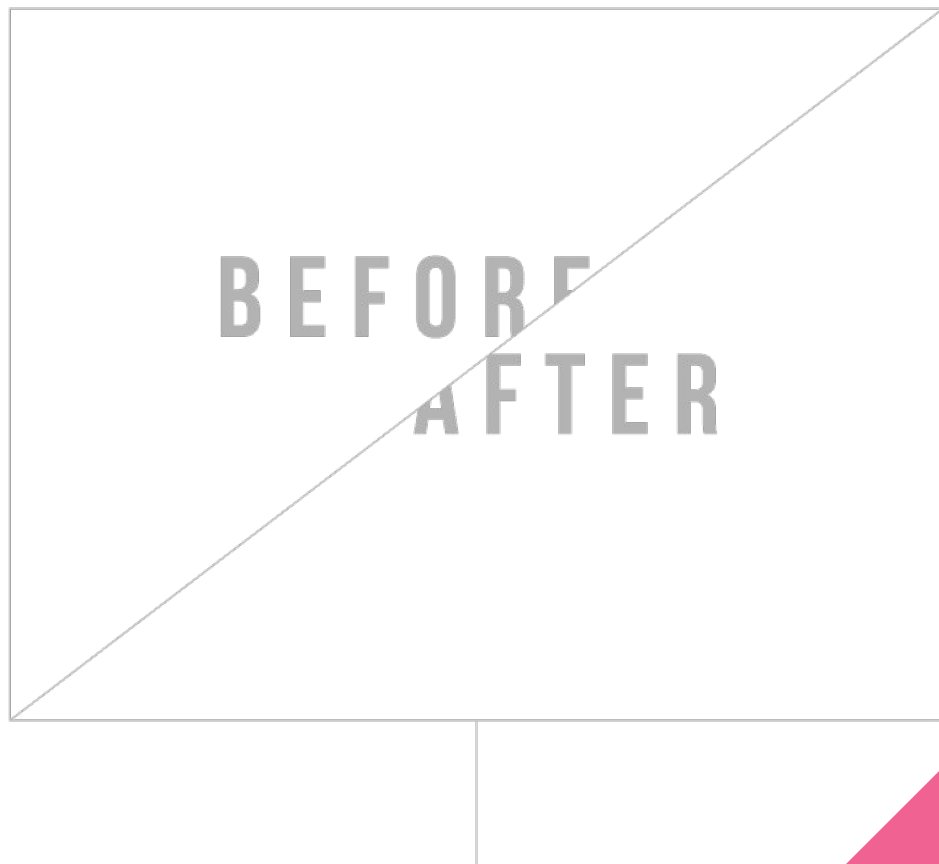
Runtime



RUNTIME



TS after JS



Типы в TS

sample_1.ts

sample_1.1.ts



Composing Types

sample_2.ts



Type

Predicate

string `typeof s === "string"`

number `typeof n === "number"`

boolean `typeof b === "boolean"`

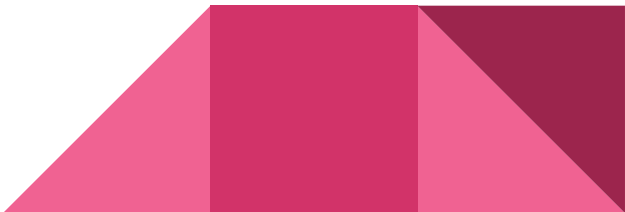
undefined `typeof undefined === "undefined"`

function `typeof f === "function"`

array `Array.isArray(a)`

typeof

sample_3.ts



Generics

sample_4.ts



Structural Type System

sample_5.ts



Classes

sample_6.ts



Inheritance

sample_7.ts

sample_8.ts



Public, private, and protected modifiers

sample_9.ts

sample_10.ts

sample_11.ts

sample_12.ts



Accessors

sample_13.ts



Static Properties

sample_14.ts



Abstract Classes

sample_15.ts



Запуск

Вставить текст

