JAVASCRIPT

EXTENDED VERSION OF JAVASCRIPT WITH THE MAIN PURPOSE OF MAKING IT EASIER TO DEVELOP LARGE JS APPLICATIONS

Typescript

STATIC TYPING

- **Static typing**. JavaScript is a dynamically typed language. TypeScript introduces support for static typing, which, if used correctly, eliminates errors associated with erroneous variable typing. At the same time, dynamic typing does not disappear at all, and it can be used.

ARRAYS

- **[]**
- **Array<> (Generic)**

- const strings: string[] = ['Hello', 'World', '!'];
- const numbers: Array<number> = [1, 2, 3, 4, 5];
- const stringsAndNumbers: (string | number)[] = ['Age', 20];
- const numbersArray: number[][] = [[1,2,3,4,5], [6,7,8,9,10]]

ENUM

- Allow you to define named constants. In this language, it is also possible to create text and numeric constants. Enumerations are defined by the **enum** keyword.

- enum State { Playing = 0, Paused = 1, Stopped = 2 }

INTERFACES

- Contains properties and methods of custom types, but do not contain their implementation. The implementation is taken over by the class that implements the interface.
- interface Car { model: string; year: number; }
- Read-only properties: interface Car { … readonly year: number; }

ACCESS MODIFIERS

- **Public**: items with this modifier are available from anywhere without any restrictions. This modifier is set by default.

- **Private**: elements with this modifier are accessible only from the class in which they are defined.

- **Protected**: Elements with this modifier are available from the class in which they are defined and from subclasses / derived classes.