TS SERIES #02

TypeScript Guide : TypeScript Vs. JavaScript

EP: 02

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Definition & Creator

JavaScript

- JavaScript is a scripting language with first-class functions to create dynamic web pages. It was developed by Brendan Eich (Netscape) in 1995.

TypeScript

- TypeScript is a powerful object-oriented language as a superset to JavaScript, with generic and JS features to overcome the complexities of JS. It was created by Microsoft in the year 2012.

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Typing & Compilation

JavaScript

- Loosely typed. In JavaScript, only dynamic typing is supported, not static typing.
- JavaScript does not need a compilation.

TypeScript

- Strongly Typed. TypeScript supports both static and dynamic typing.
- TypeScript needs to be compiled.

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Ecosystem & Learning Curve

JavaScript

- JavaScript is a simple language that optimizes code for compatibility, easy to read and write.
- JavaScript is flexible and easy to learn.

TypeScript

- TypeScript is more of a powerful and intuitive language that supports static typing.
- TypeScript requires specific scripting knowledge and is a little hard to learn. Plus, prior knowledge of Javascript is preferred.

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Annotation & Prototyping

JavaScript

- JavaScript does not require annotation.
- JavaScript does not have a feature for prototyping.

TypeScript

- TypeScript requires the need for annotation to get the full advantage of TypeScript features.
- The prototyping feature is available in TypeScript language.

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Type & Generics

JavaScript

- JavaScript is only a scripting language that gives functionality to the pages. There is no support for interfaces.

- JavaScript does not support generic features.

TypeScript

- TypeScript is an enhanced language with interfaces, OOP concepts, classes, static typing, etc.

- TypeScript supports generic features. It allows the creation of reusable components.

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Debugging & Error Detection

JavaScript

- In JavaScript, errors are detected only at the run time, since it is an interpreted language.
- May require more debugging and testing.

TypeScript

- Errors are detected or highlighted in the early development stage in TypeScript.
- Stronger typing can help identify errors.

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Community

JavaScript

- Javascript is an old language and one of the fundamental front-end languages. Hence, it has a large community of developers. Used by companies like Netflix, Microsoft, PayPal, etc.

TypeScript

- TypeScript is a fairly new language and has a stiff learning curve. It does not have as large a community base as JavaScript. Used by companies like Asana, Clever, Screen Award, etc.

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That's it.

Execution & Suitability

JavaScript

- JavaScript runs directly on the browser and supports cross-platform, cross browsers.

- Used for web apps, mobile and desktop applications, and game development.

TypeScript

- TypeScript does not run directly on the browser.

- It is a more front-end-oriented language with rich IDE support. It is best suited for complex applications and also any JS apps as well.