**TypeScript**

* TypeScript is a Superset of JavaScript-> A language building up on JavaScript by adding new features + Advantages to JavaScript.
* Browser can’t directly execute TypeScript
* TypeScript is a tool which compiles TypeScript code into JavaScript code.
* TypeScript will check error during the compilation process, that’s why compile time error will not generated on directly browser
* TypeScript is a powerful, open-source programming language. It built on JavaScript by adding static type definition, making it a superset of JavaScript.
* TypeScript enhance the development experience by enabling developers to catch errors early through the type checking and it facilitates the development of large-scale applications with improved code quality and maintainability.

A diagram of a computer program

Description automatically generated with medium confidence

* **Key Features of TypeScript:**

1. **Static Typing:**

* TypeScript’s type system helps catch errors at compile time, reducing runtime errors and improving code reliability.

1. **Better Code Readability and Maintainability:**

* Type definition and interface make the code more understandable and easier to maintain.

1. **Adding Non-JavaScript Features like interface or Generics**
2. **It also gives Meta-programming Feature like Decorators**
3. **Rich configuration Options.**