Object Oriented Programming In TypeScript

Concepts and Examples

Presented by Tyler Schum

What is Object Oriented Programming?

Object-Oriented Programming (OOP) is a programming paradigm in computer science that relies on the concept of classes and objects. It is used to structure a software program into simple, reusable pieces of code blueprints (usually called classes), which are used to create individual instances of objects.

```typescript
class Person {
    name: string;
    constructor(argument: string) {
        this.name = argument;
    }
    sayHello() {
        return "Hello, " + this.name;
    }
}

const person = new Person("Tyler");

person.sayHello(); // "Hello, Tyler"
```

The Four Pillars of OOP

- **Inheritance:** Child classes inherit data and behaviors from their parent class

- **Encapsulation:** Containing information in an object, exposing only selected information

- **Abstraction:** Only exposing high-level public methods for accessing an object

- **Polymorphism:** Accessing variable types from the same routine at run time

Let's see some code...

Sources

https://www.educative.io/blog/object-oriented-programming

https://medium.com/@shanikae/polymorphism-explained-simply-7294c8deeef7

https://blog.bitsrc.io/inheritance-vs-composition-which-is-better-for-your-javascript-project-16f4a077de9