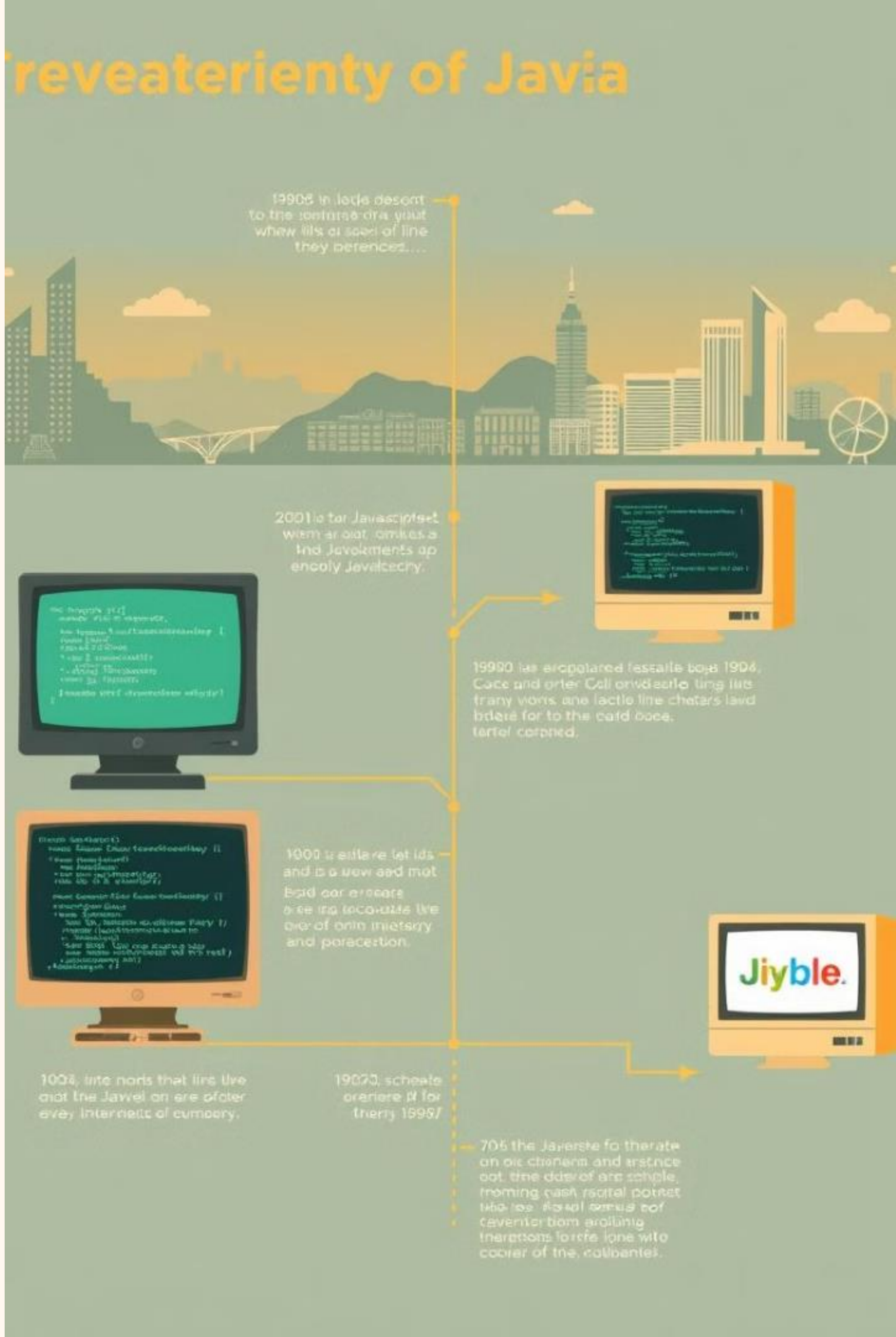
Modern JavaScript with ES6: A Comprehensive Overview

ES6 (ECMAScript 2015) revolutionized JavaScript. It brought modern features and syntax. This presentation will explore key ES6 features. Learn how to write cleaner, more efficient code.

MK **by Munazza Kousar**

Introduction to ES6 (ECMAScript 2015)

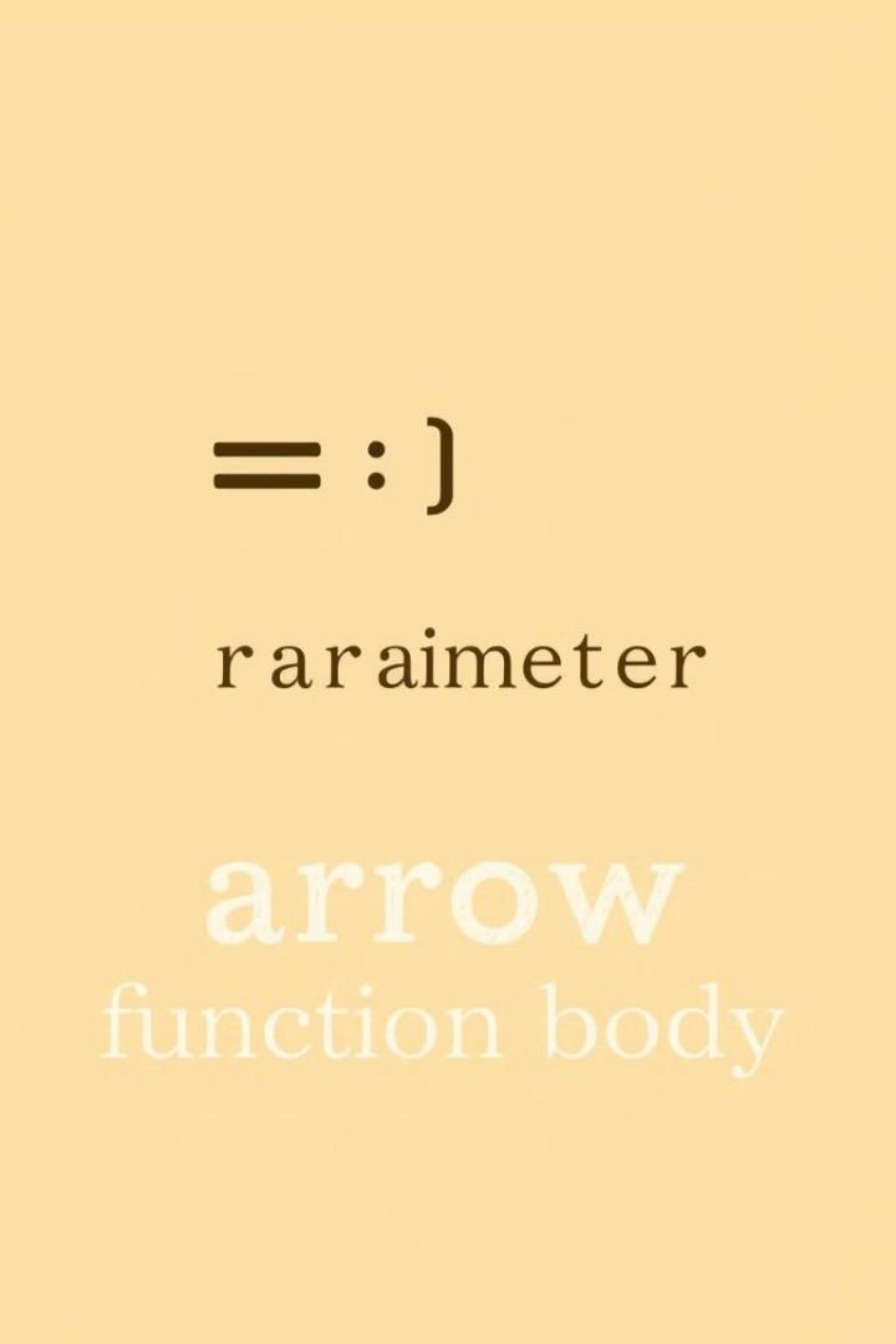
ES6 is a significant update to JavaScript. It enhances developer productivity and code maintainability. It addresses limitations of previous versions. Browser compatibility is ensured by transpilation tools like Babel.



Key Features: Let and Const

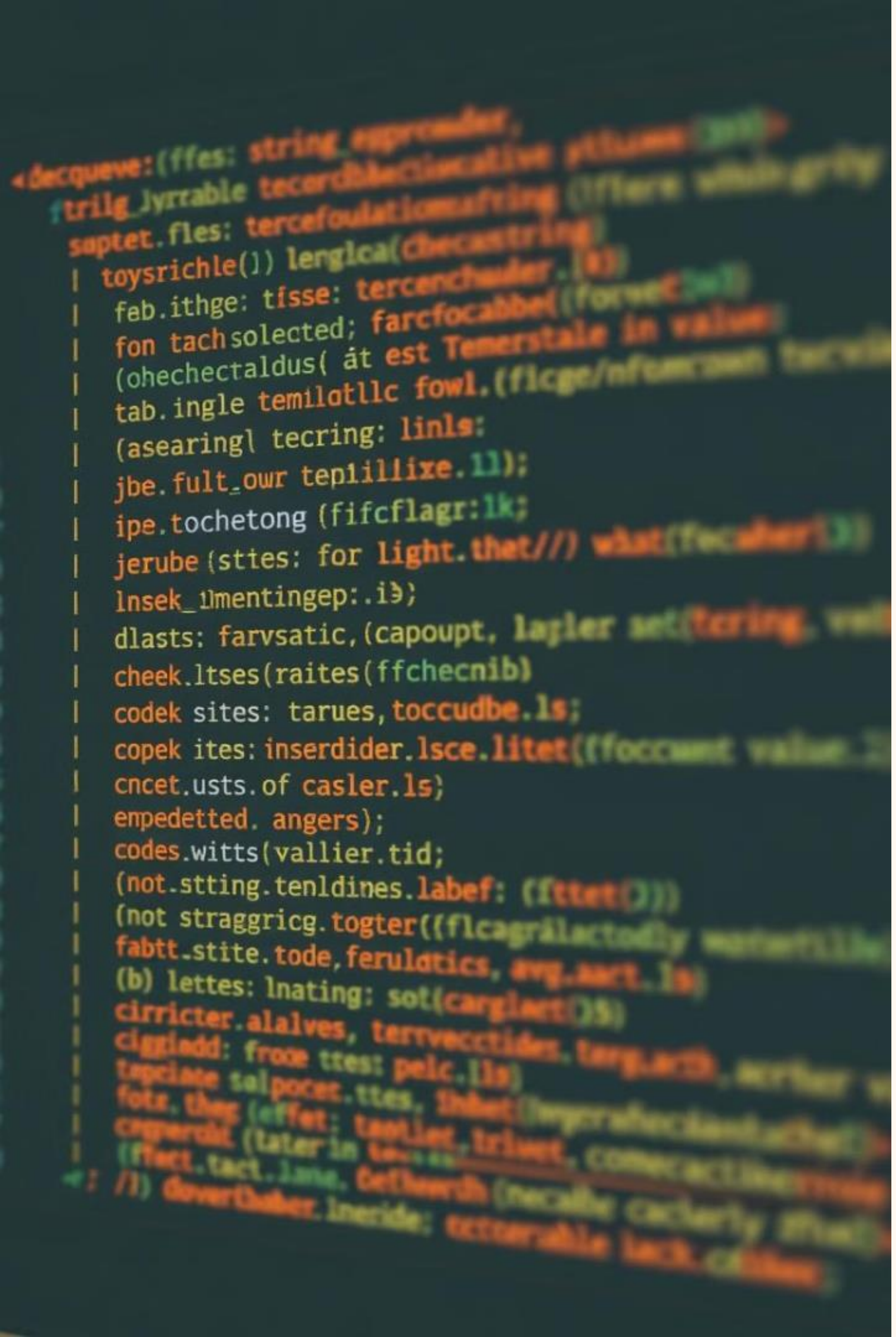
var has function scope. **let** and **const** have block scope. **let** allows reassignment. **const** creates immutable variables.

Use **let** when a variable needs to change. Use **const** for values that should not be reassigned.



Arrow Functions

Arrow functions provide a concise syntax. They have lexical **this** binding, simplifying event handlers and callbacks. Arrow functions eliminate the need for **.bind()**.



Template Literals

Template literals use backticks for string creation. They allow string interpolation with **${expression}**. Multi-line strings are natively supported without concatenation.

Destructuring Assignment

Destructuring simplifies extracting values. It works with both objects and arrays. You can rename variables during object destructuring. Rest parameters enable capturing multiple array elements.

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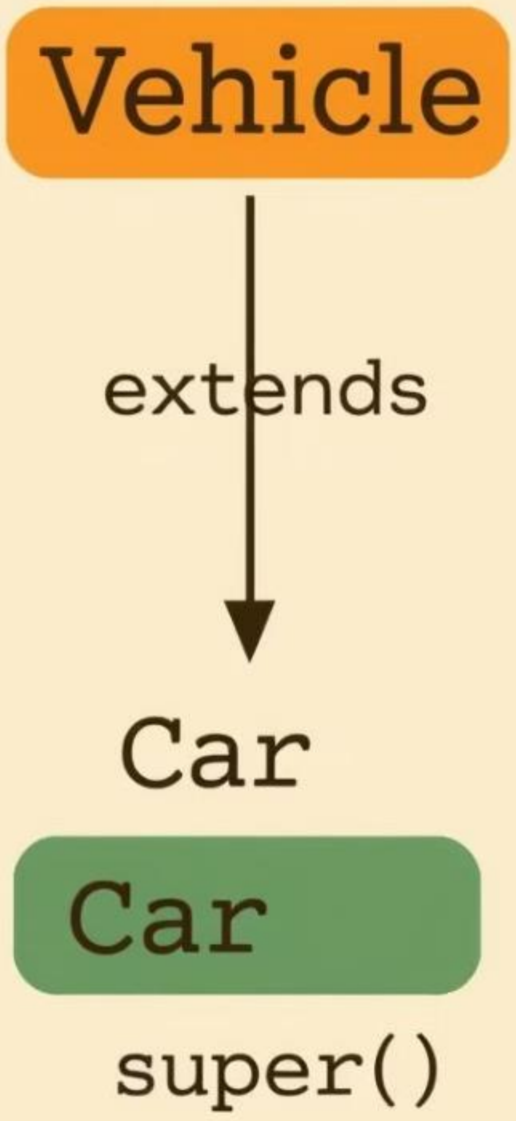
Classes and Inheritance

ES6 classes provide a syntactic sugar over prototypes. **extends** facilitates inheritance. **super()** calls the parent constructor. Static methods belong to the class itself.



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Modules: Import and Export

Modules organize code into reusable parts. Named exports allow exporting multiple values. Default exports define a primary export per module. Modules improve code organization.