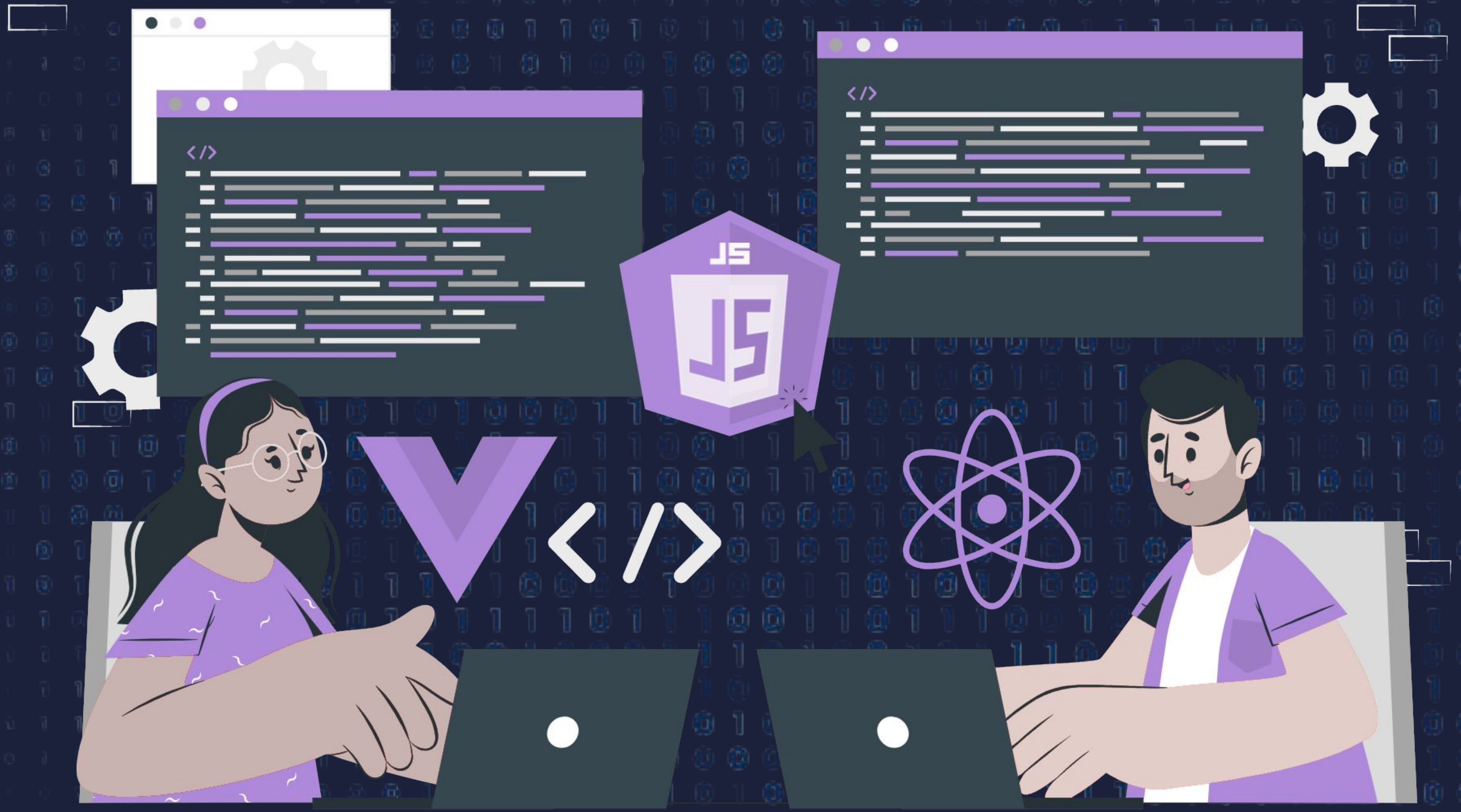
SKILLS

How prototypes Work



Topics

1. Prototype object
2. __proto__
3. Prototype inheritance
4. Prototype chaining

Prototype object

When you create an instance of a function using the `new` keyword, JavaScript sets the new object's internal `[[Prototype]]` property to be a reference to the prototype object of the function. This prototype object is often referred to as the constructor's prototype.

__proto__

When you create a new object of the function using new keyword JS Engine creates an object and sets a property named __proto__ which points to its function's prototype object

Prototype Inheritance:

Prototype inheritance refers to the ability of an object to inherit properties and methods from its prototype. When an object is created in JavaScript, it automatically inherits properties and methods from its prototype. If a property or method is not defined on the object itself, JavaScript will look for it on the object's prototype, and if it finds it there, it will use it.

Prototype chaining :

- When a property is accessed on an object, JavaScript first looks for the property on the object itself. If the property is not found, JavaScript looks for it on the object's prototype object. If the property is still not found, JavaScript continues searching up the prototype chain until it reaches the top-level Object.prototype.

- This chain of objects linked by their prototype objects is called the prototype chain. Each object in the chain inherits properties and methods from its prototype object.

- Prototype chaining is a key feature of JavaScript's prototypal inheritance system, which allows objects to inherit properties and methods from their prototype objects. It allows for code reuse and helps to keep code organized and modular.

Conclusion

Prototypes allow you to define properties and methods that are shared by all instances of a constructor function. When you call a method on an object, JavaScript first looks for the method on the object itself. If it doesn't find the method, it looks for it on the object's prototype, and so on up the prototype chain until it reaches the "Object.prototype" object, which is the final link in the chain.

PW SKILLS

THANK YOU