

# Unlocking Ruby's Hidden Magic



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# Design Time and Runtime

**Design Time**

**Write the code**

**Compilation**

**Runtime**

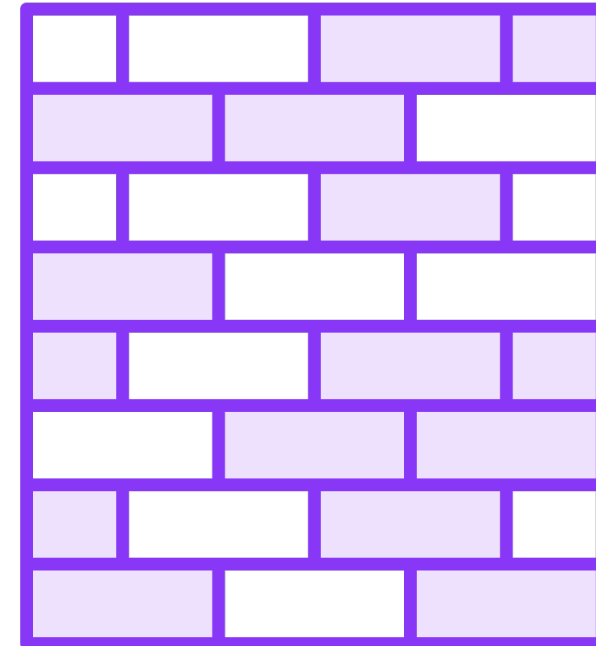
**Execute the code**

# Design Time and Runtime

**Design Time**

**Write the code**

You can define  
classes and methods



**Runtime**

**Execute the code**

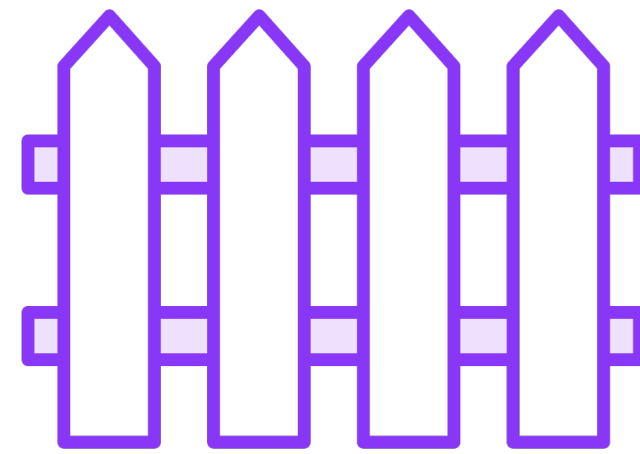
You can *use*  
classes and methods

# Design Time and Runtime

**Design Time**

**Write the code**

**You can define  
classes**



**Runtime**

**Execute the code**

**You can also  
define classes**

# Metaprogramming

**Writing “code that writes code” – that is, code that modifies the constructs of the language at runtime.**

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# A Metaprogramming Example

# Peeking into the Database

## reviews

	id	author	rating	text	movie_id	created_at	updated_at
	...	Filter	Filter	Filter	Filter	Filter	Filter
1	1	Paolo Perrotta	4	Hilarious and thoughtful.	1	2020-09-11...	2020-09-11...
2	2	Alberto Lompo	3	A smart little movie.	1	2020-09-11...	2020-09-11...
3	3	Paolo Perrotta	5	A modern classic that surprises you multiple times.	3	2020-09-11...	2020-09-11...

## movies

	id	title	year	director	created_at	updated_at
	...	Filter	Filter	Filter	Filter	Filter
1	1	Sword of Trust	2019	Lynn Shelton	2020-09-11...	2020-09-11...
2	2	Shoplifters	2018	Matsuzaki Kaoru	2020-09-11...	2020-09-11...
3	3	Parasite	2019	Bong Joon-ho	2020-09-11...	2020-09-11...





# **Domain Specific Languages**



# Domain Specific Language

**A language that's specialized to a particular application domain, as opposed to a general-purpose language.**

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# Ruby Is Great for DSLs Because...

**...it has a flexible syntax**

**You can bend the syntax to look like a different language**

**...it has metaprogramming**

**You can pack some interesting tricks into a Ruby program**



# **Too Much Power?**

**Metaprogramming is great  
*and* dangerous.**