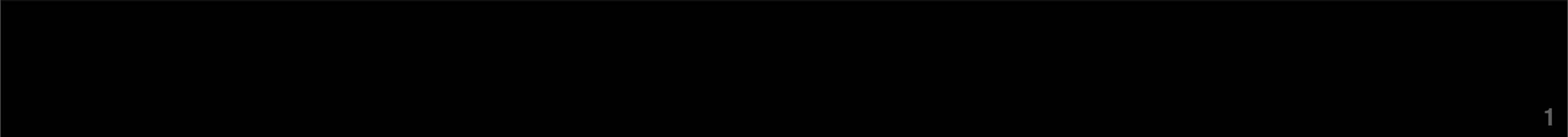


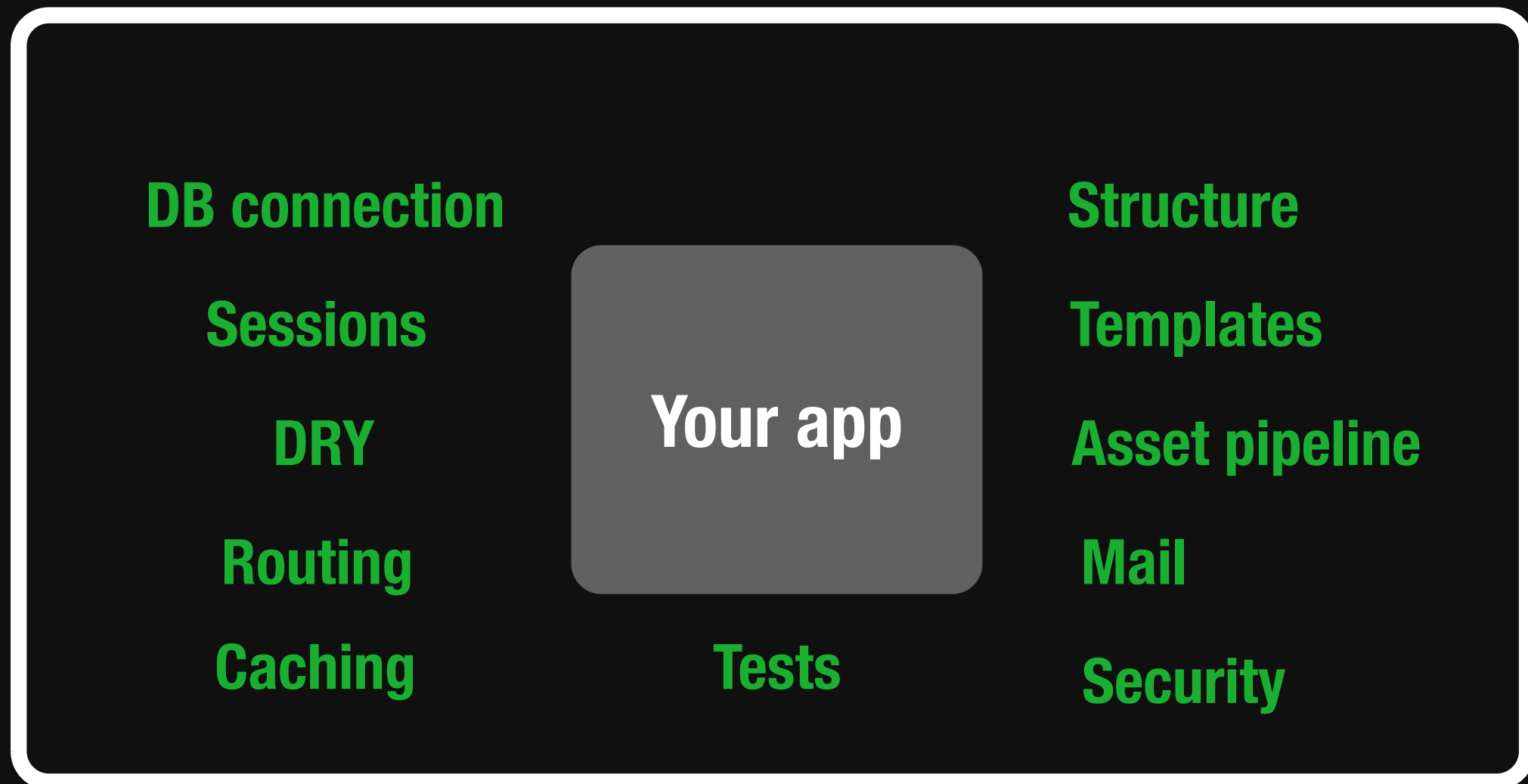
# Ruby on Rails



# What is Rails?

*“Ruby on Rails is an open-source web framework that is optimized for programmer happiness and sustainable productivity. It let's your write beautiful code by favoring convention over configuration.”*

# What's a web framework? - **Rails**



**Rails**

# The Best Bits (for me at least...)

- ▶ **Speed of development**
  - Translation of business logic to working product
- ▶ **Conventions allow reuse**
- ▶ **Community is amazing**

# Creating a new app

# Creating a new app

► **rails new MY\_APP**

# Creating a new app

- ▶ **rails new MY\_APP**
- ▶ **rake db:create**

# Creating a new app

- ▶ **rails new MY\_APP**
- ▶ **rake db:create**
- ▶ **cd blog**



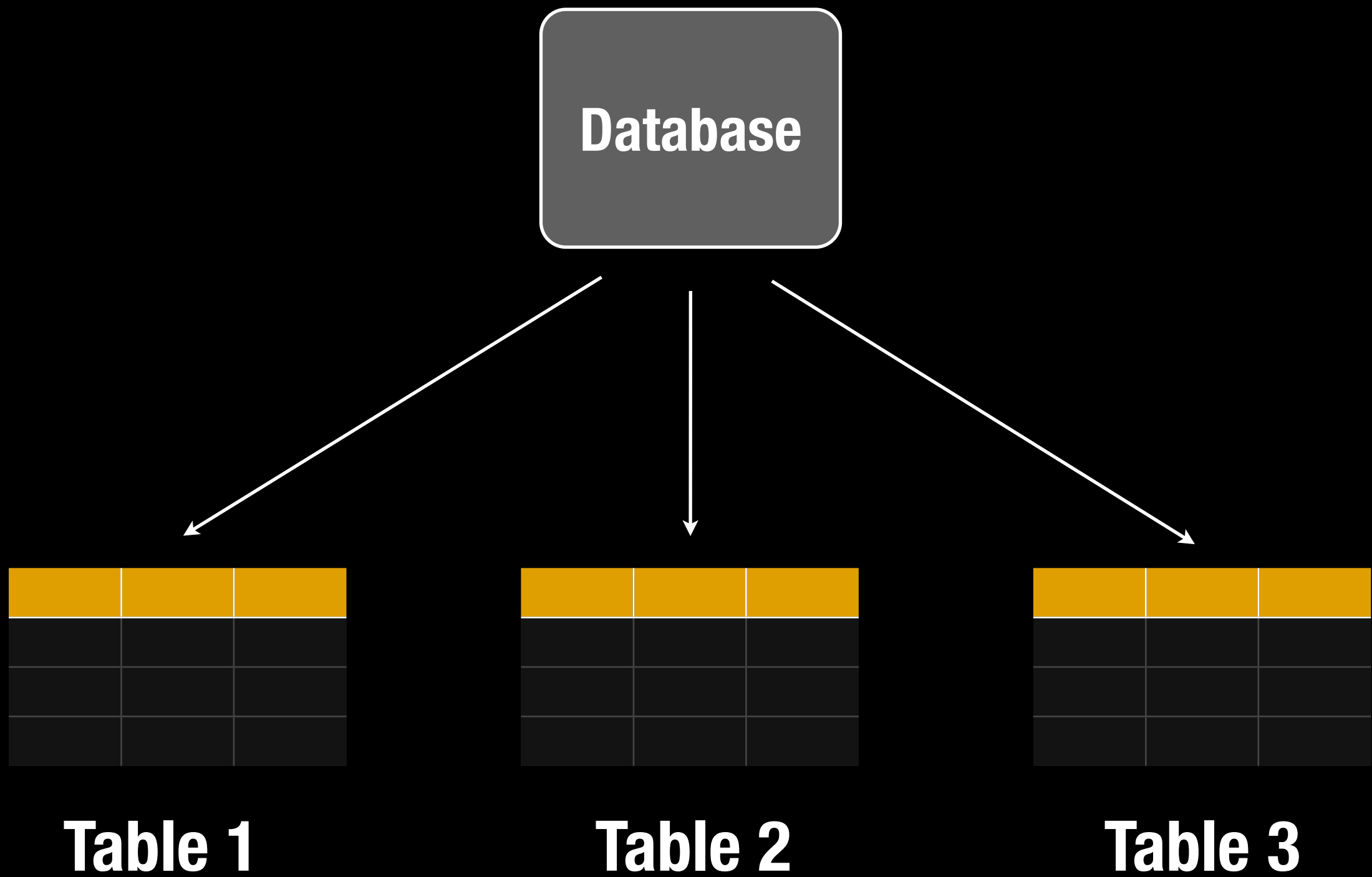
# Creating a new app

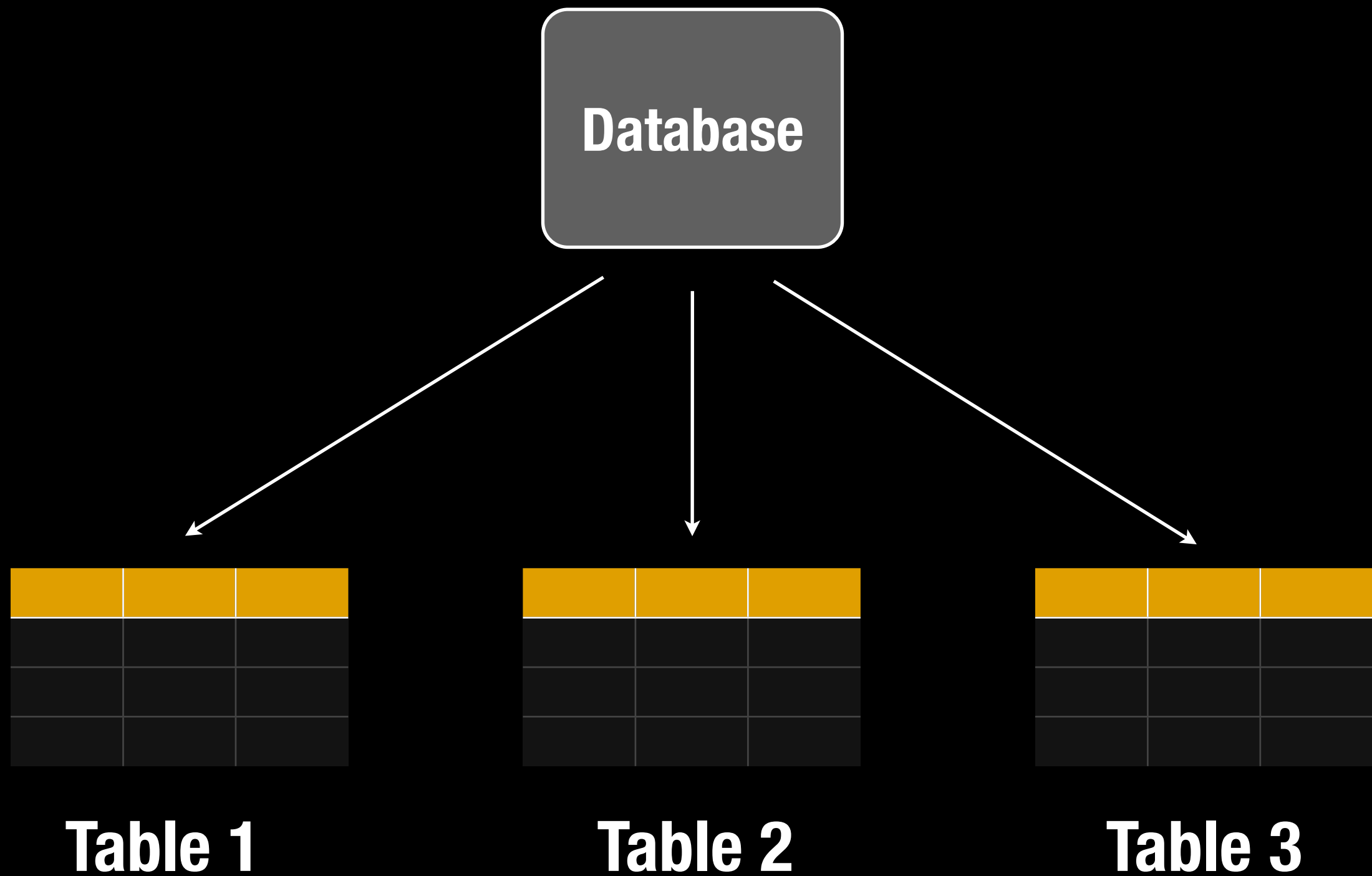
- ▶ **rails new MY\_APP**
- ▶ **rake db:create**
- ▶ **cd blog**
- ▶ **rails server**

# Databases

...they make us dynamic

**Database**





**“A database has many tables”**

id	name	email
1	Ed	<u>ed@podmedics.com</u>
2	Jeremy	<u>jeremy@meducation.net</u>
3	Steve	<u>steve@apple.com</u>

**fields/attributes**



id	name	email
1	Ed	<u>ed@podmedics.com</u>
2	Jeremy	<u>jeremy@meducation.net</u>
3	Steve	<u>steve@apple.com</u>

**fields/attributes**



**record**



id	name	email
1	Ed	<u>ed@podmedics.com</u>
2	Jeremy	<u>jeremy@meducation.net</u>
3	Steve	<u>steve@apple.com</u>



**fields/attributes**

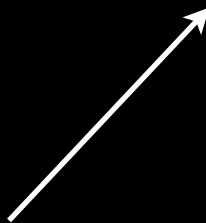


**record**



id	name	email
1	Ed	<u>ed@podmedics.com</u>
2	Jeremy	<u>jeremy@meducation.net</u>
3	Steve	<u>steve@apple.com</u>

**value**



primary key



fields/attributes

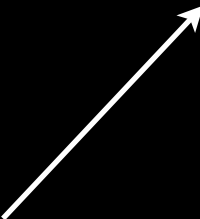


record



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1	Ed	<u>ed@podmedics.com</u>
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value



# Types

Each attribute must have a type

# Types

Each attribute must have a type

- ▶ **string**
- ▶ **text**
- ▶ **int**
- ▶ **float**
- ▶ **time**
- ▶ **datetime**
- ▶ **boolean**

# Relational Databases I

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## Doctors

id	name	email
1	Raza	...
2	Rashmi	...

# Relational Databases I

## Doctors

id	name	email
1	Raza	...
2	Rashmi	...

## Patients

id	name	doctor_id
1	Ed	1
2	Jeremy	1
3	Kat	2

# Relational Databases I

Doctors

id	name	email
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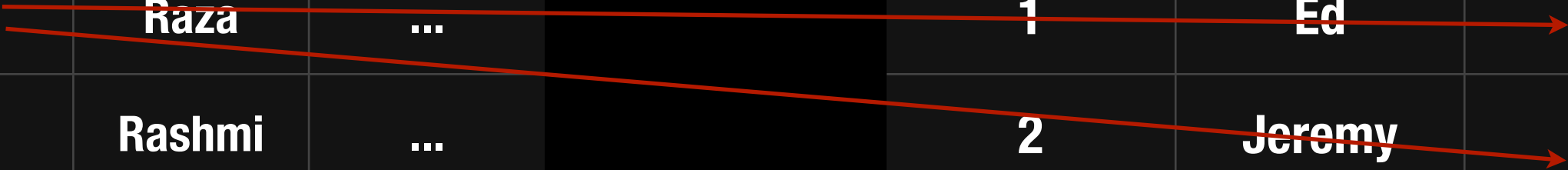
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a doctor has many  
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# Relational Databases I

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1	Raza	...
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Patients

id	name	doctor_id
1	Ed	1
2	Jeremy	1
3	Kat	2

a doctor has many  
patients

a patient belongs to a  
patient

# Platforms & Language

SQL



# ActiveRecord

How Rails talks to the database

## Doctors

id	name	email
1	Raza	...
2	Rashmi	...

# ActiveRecord

How Rails talks to the database

```
doctor.rb  
require 'activerecord'
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doctor = Doctor.find(1)
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# ActiveRecord

How Rails talks to the database

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require 'activerecord'
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```
doctor = Doctor.find(1)  
doctors = Doctor.all
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## Doctors

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How Rails talks to the database

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How Rails talks to the database

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doctor.rb
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require 'activerecord'
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doctor = Doctor.find(1)
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```
doctors = Doctor.all
```

```
doctor = Doctor.first
```

```
doctor = Doctor.last
```

```
doctor = Doctor.where(name: "Raza")
```

## Doctors

id	name	email
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# ActiveRecord

How Rails talks to the database

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doctor.rb  
require 'activerecord'
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How Rails talks to the database

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has_many :patients
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How Rails talks to the database

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has_many :patients
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patients = doctor.patients
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## Doctors

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# MVC

+ router



**browser** asks....**server** gives

**browser** asks....**server** gives

**User  
request**

**browser** asks...**server** gives

**User  
request**

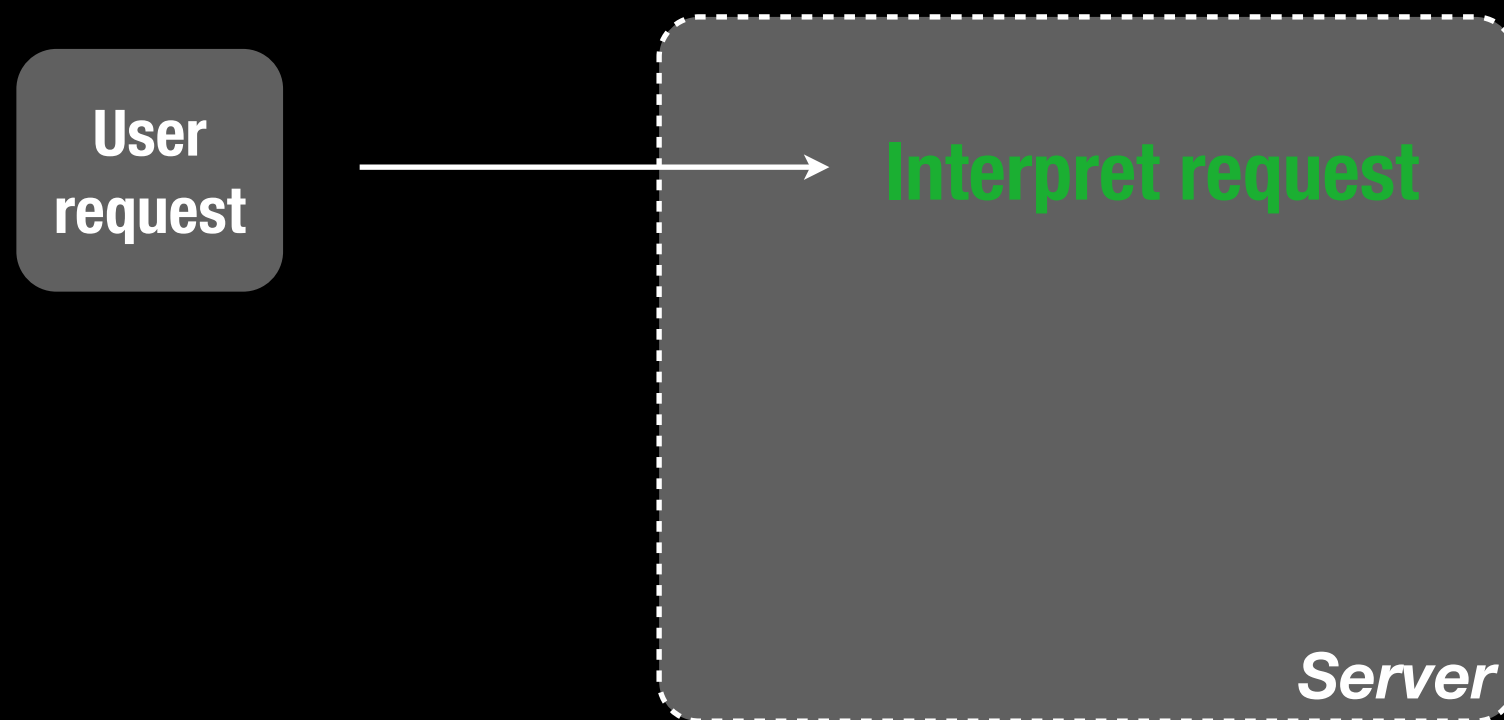


**browser** asks....**server** gives

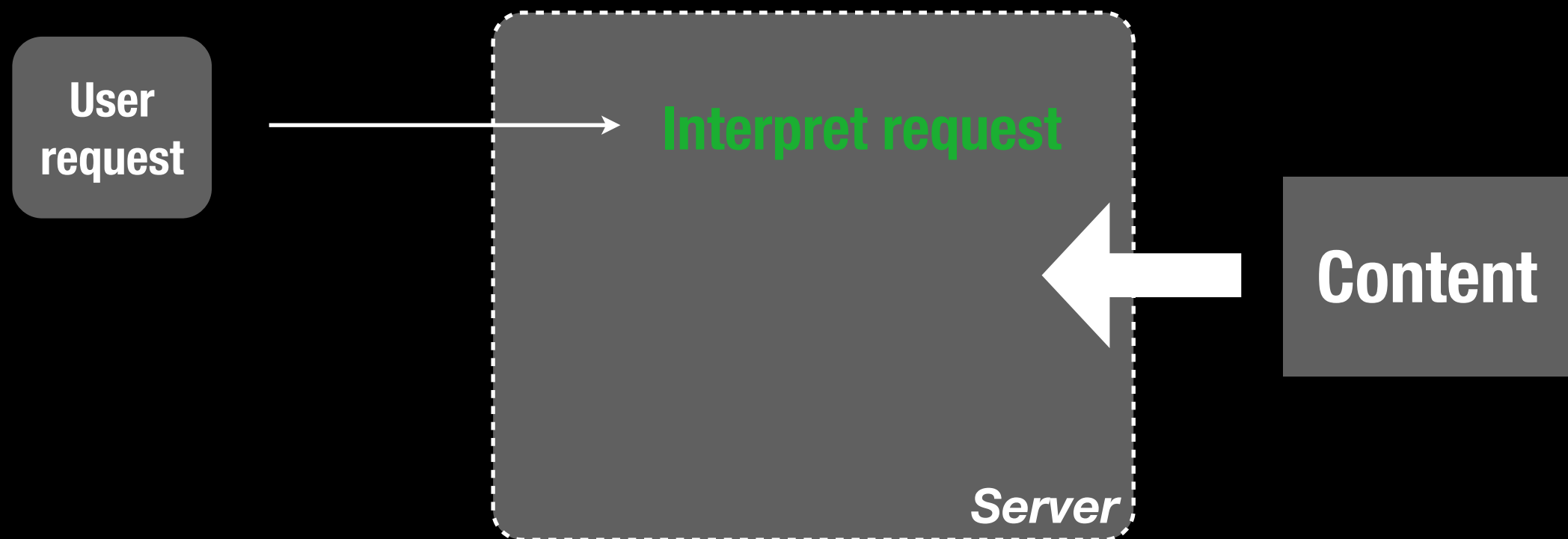
**User  
request**

*Server*

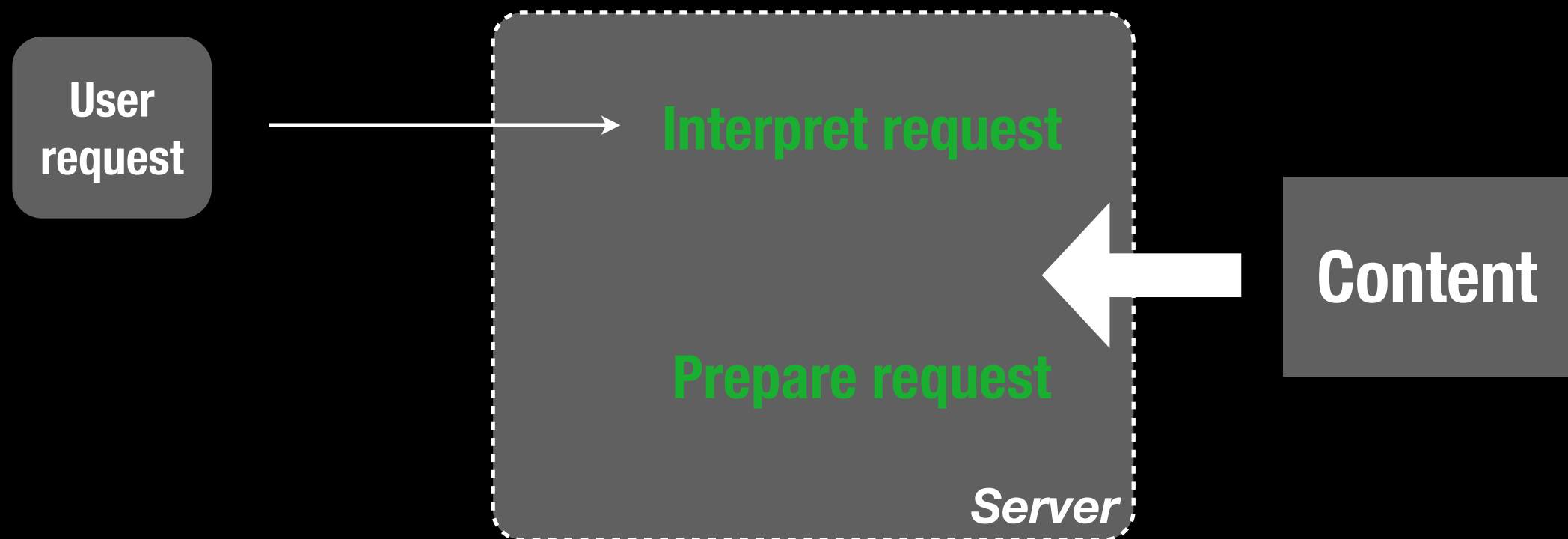
**browser** asks....**server** gives



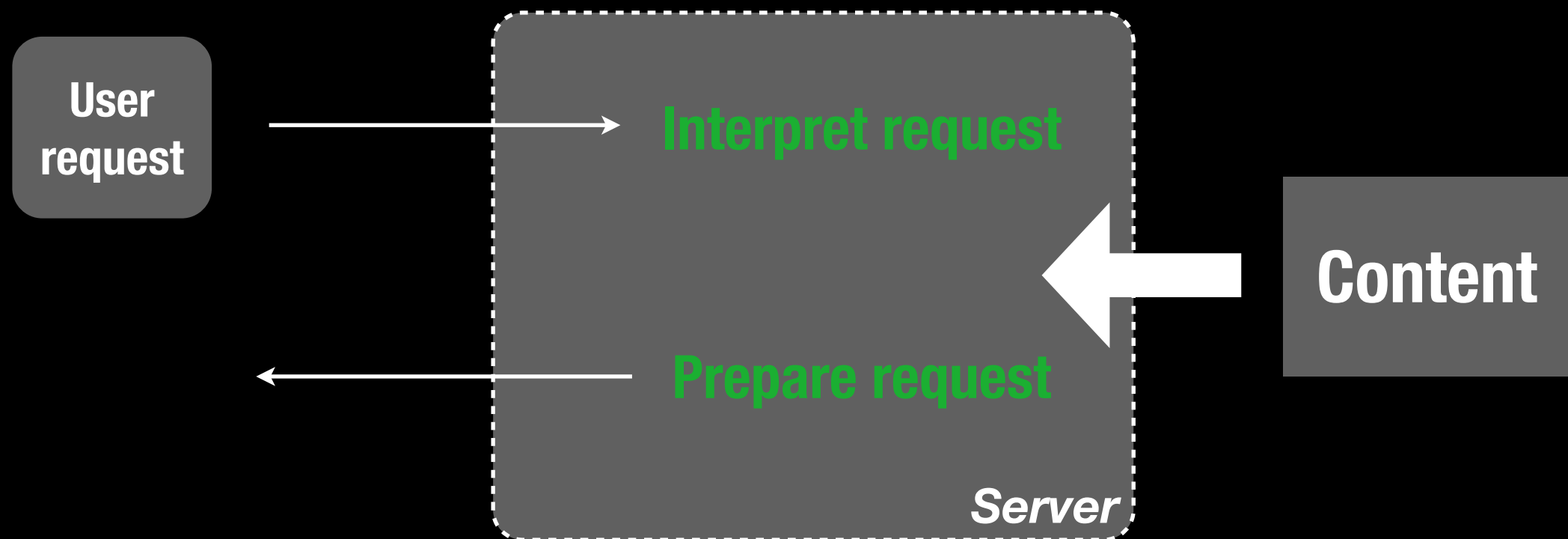
**browser** asks....**server** gives



**browser** asks....**server** gives

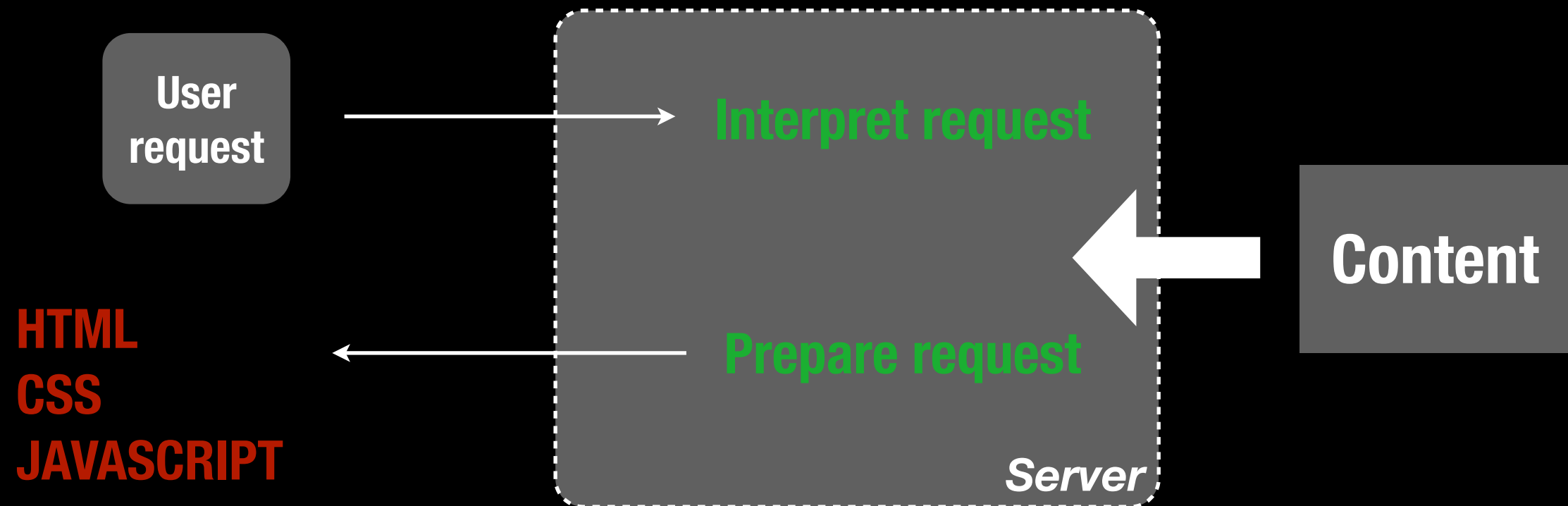


**browser** asks....**server** gives





browser asks....server gives



url →

**url**



**Router**

**url**



**Router**

**Controller**

**url**

**Router**

**Controller**

**url**

**Router**

**Controller**

**Model**

**data**

**url**

**Router**

**Controller**

**Model**

**View**

**data**

**url**

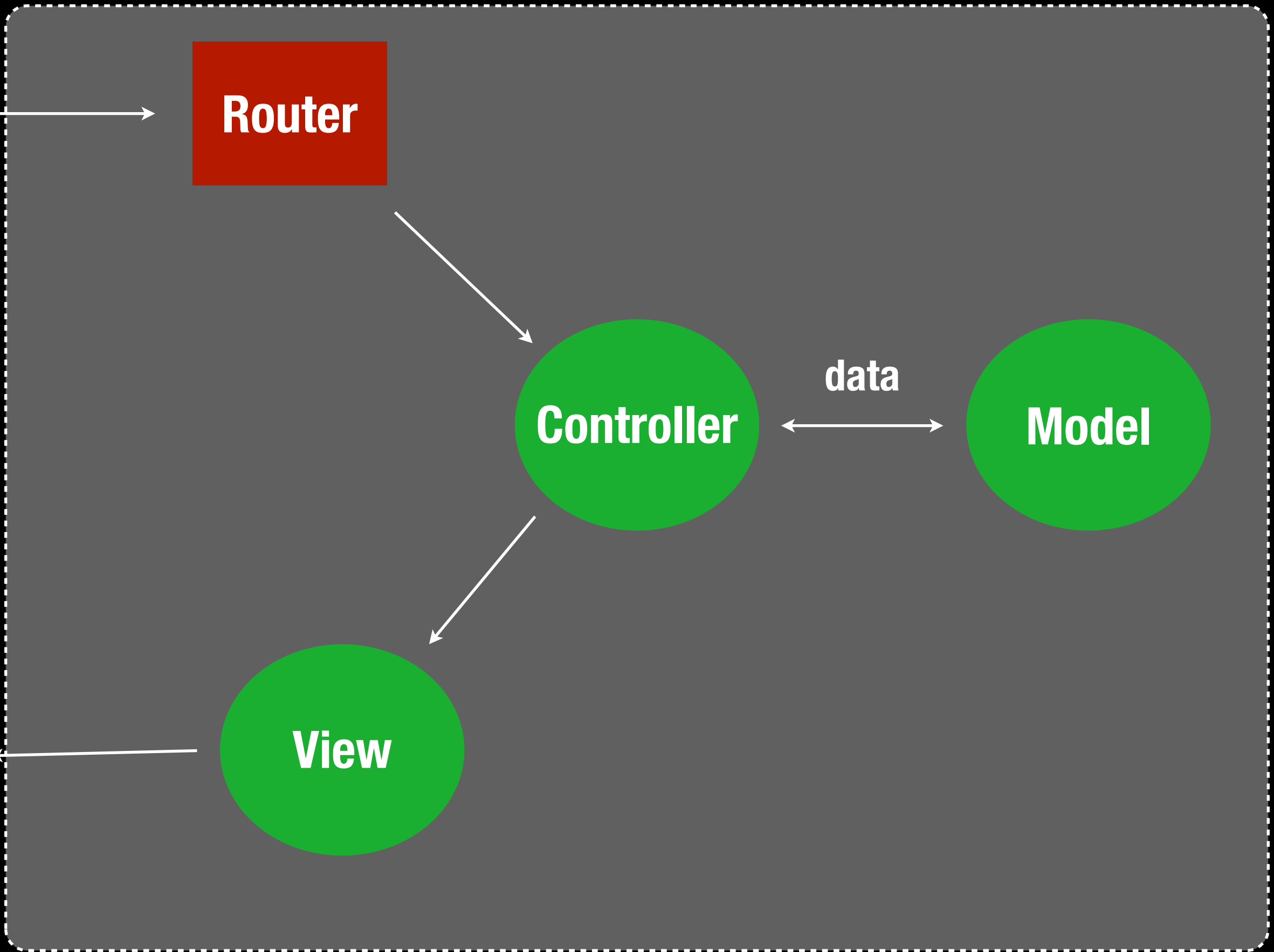
**Router**

**Controller**

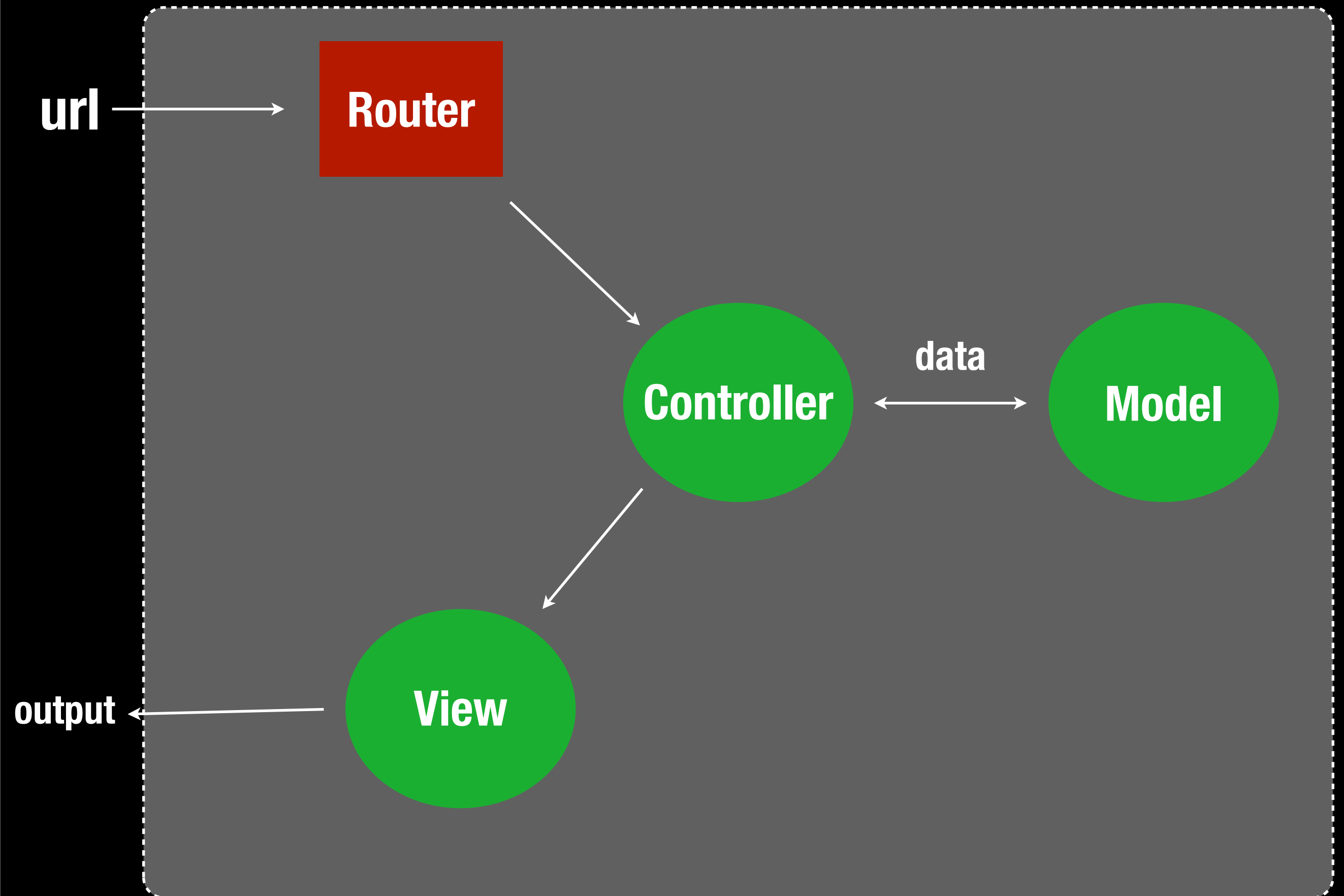
**Model**

**View**

**data**







# Ruby on Rails

## Web Applications

