

WHYYOU MIGHT NOT NEED
YET ANOTHER
ENVIRONMENT

@bradgignac

What is an environment?

Runs your code.

Lives for days, weeks, months, or years.

Shared across developers and/or teams.

Periodic releases or continuous delivery.

The Goal:
Deliver Quality Software

The Problem:

How do I know my code works?

Development

Production



SAY "WORKS ON MY MACHINE"



ONE MORE TIME

Development

Staging

Production



What's the big deal?

Environments drift.



A close-up of a wooden puppet head, likely from a classic puppet show. The puppet has a light brown, textured wooden face with large, white, oval eyes and a wide, open mouth showing a red interior. A dark, curved line represents a nose. The puppet's head is tilted slightly to the left. The background is a solid, dark grey color.

Environments lie.

A photograph of three brown rabbits on a white surface. One large rabbit is on the right, and two smaller rabbits are on the left. The text "Environments multiply." is overlaid in the center.

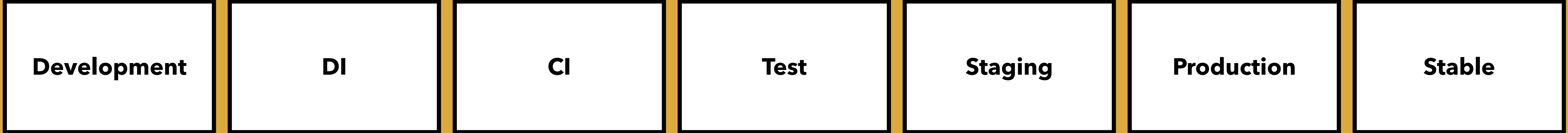
Environments multiply.

Development

Staging

Production





Development	DI	CI	Test	Staging	Production	Stable
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A collage of various US dollar bills, including \$20 and \$5 bills, overlapping each other. The bills feature portraits of Andrew Jackson and Abraham Lincoln. The text "Environments are expensive." is overlaid in a large, white, sans-serif font across the center of the image.

Environments are expensive.

Good News:

We have more tools available.

Feature Flags

```
if feature.IsEnabled("newWidget") {  
    widget := widget.New()  
} else {  
    widget := widget.Old()  
}  
  
widget.render()
```

Team Shipping

```
if user.IsInGroup("my-team") {  
    widget := widget.New()  
} else {  
    widget := widget.Old()  
}  
  
widget.render();
```

Phased Rollout

```
if user.IsInPercentage(10) {  
    widget := widget.New()  
} else {  
    widget := widget.Old()  
}  
  
widget.render();
```

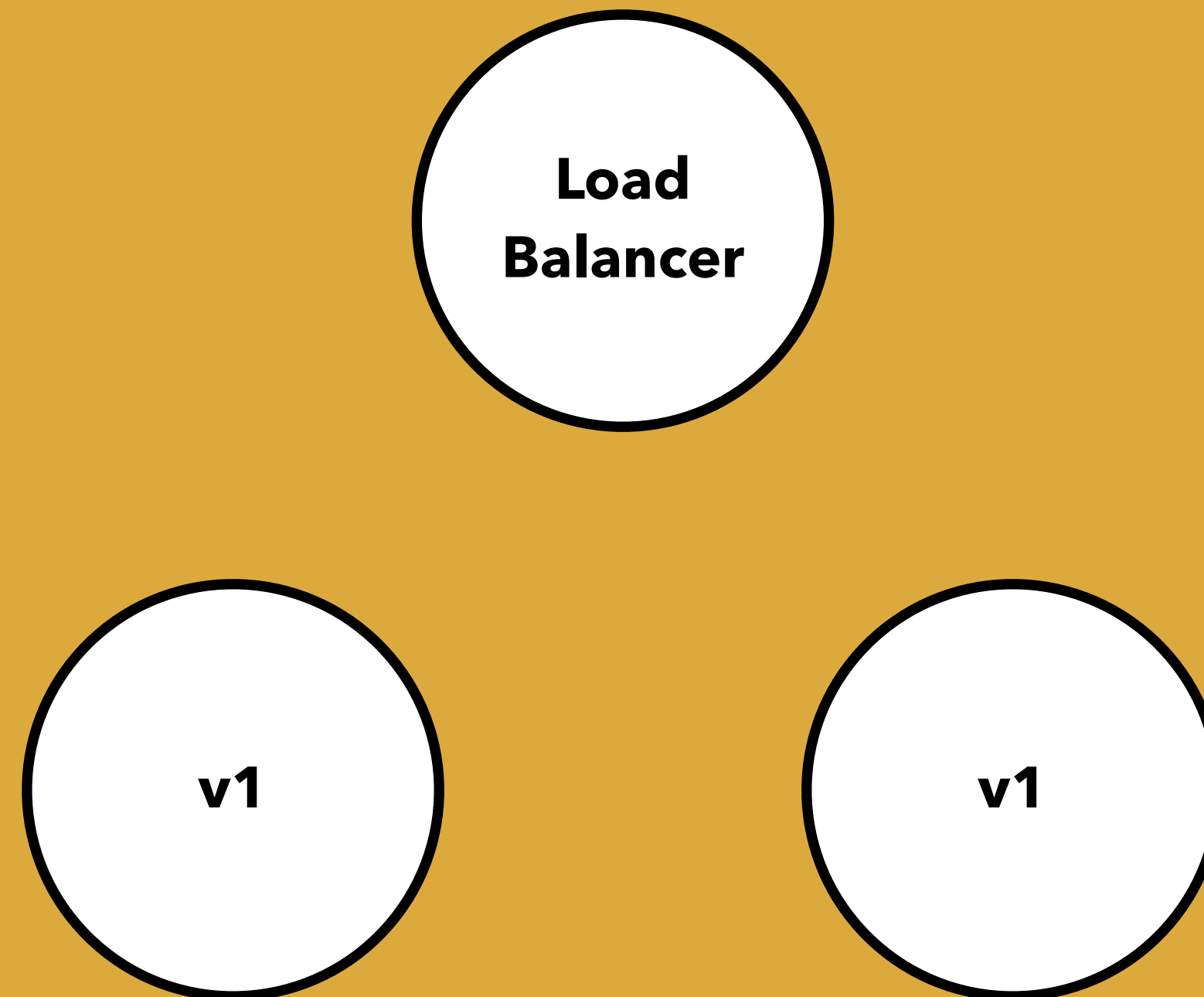
Gold Master Testing

```
// Write to v1 and v2, read from v1.
```

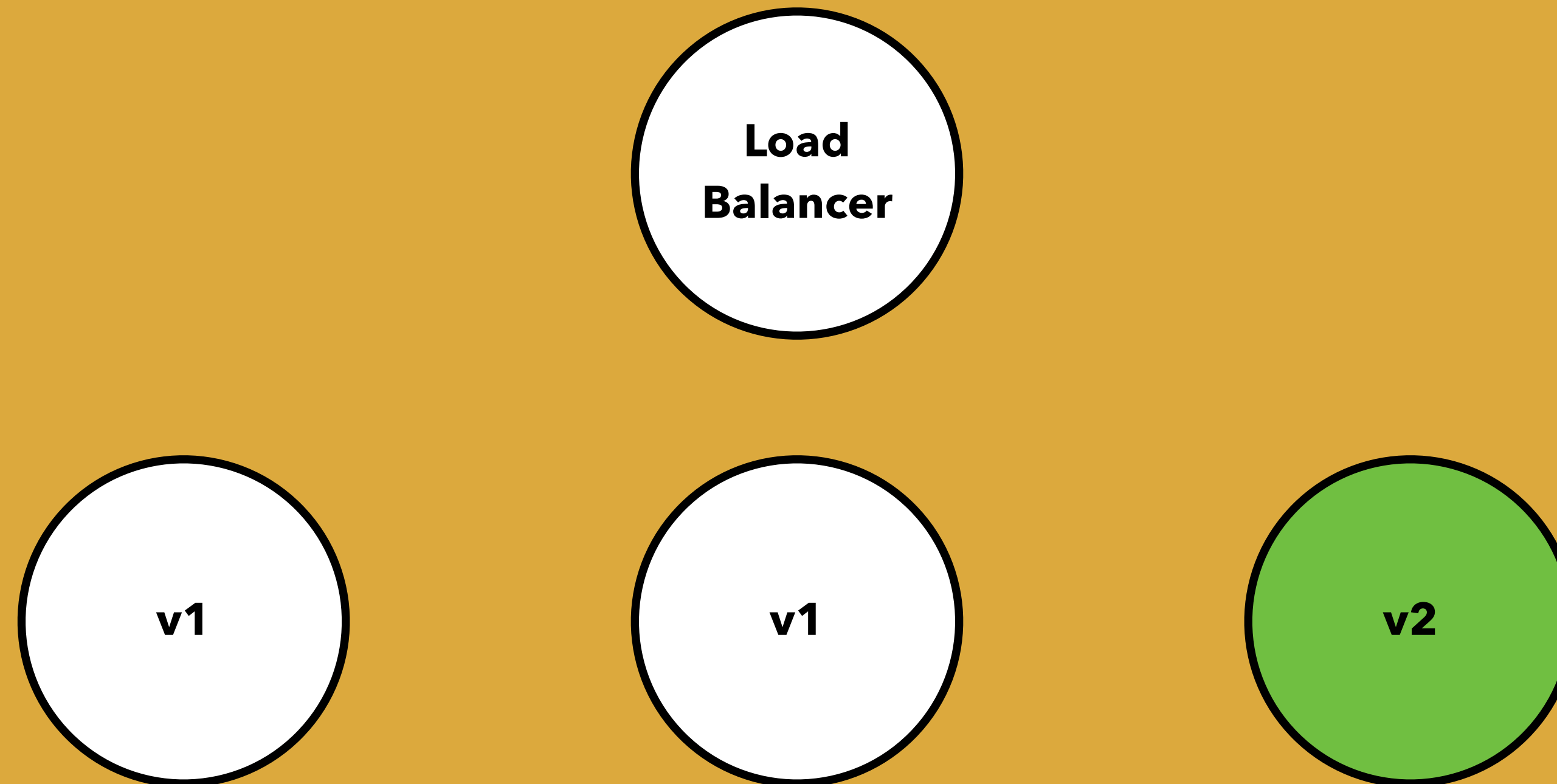
```
stats.Time("myservice.operation.v1", func() {  
    operation.VersionOne()  
})
```

```
stats.Time("myservice.operation.v2", func() {  
    operation.VersionTwo()  
})
```

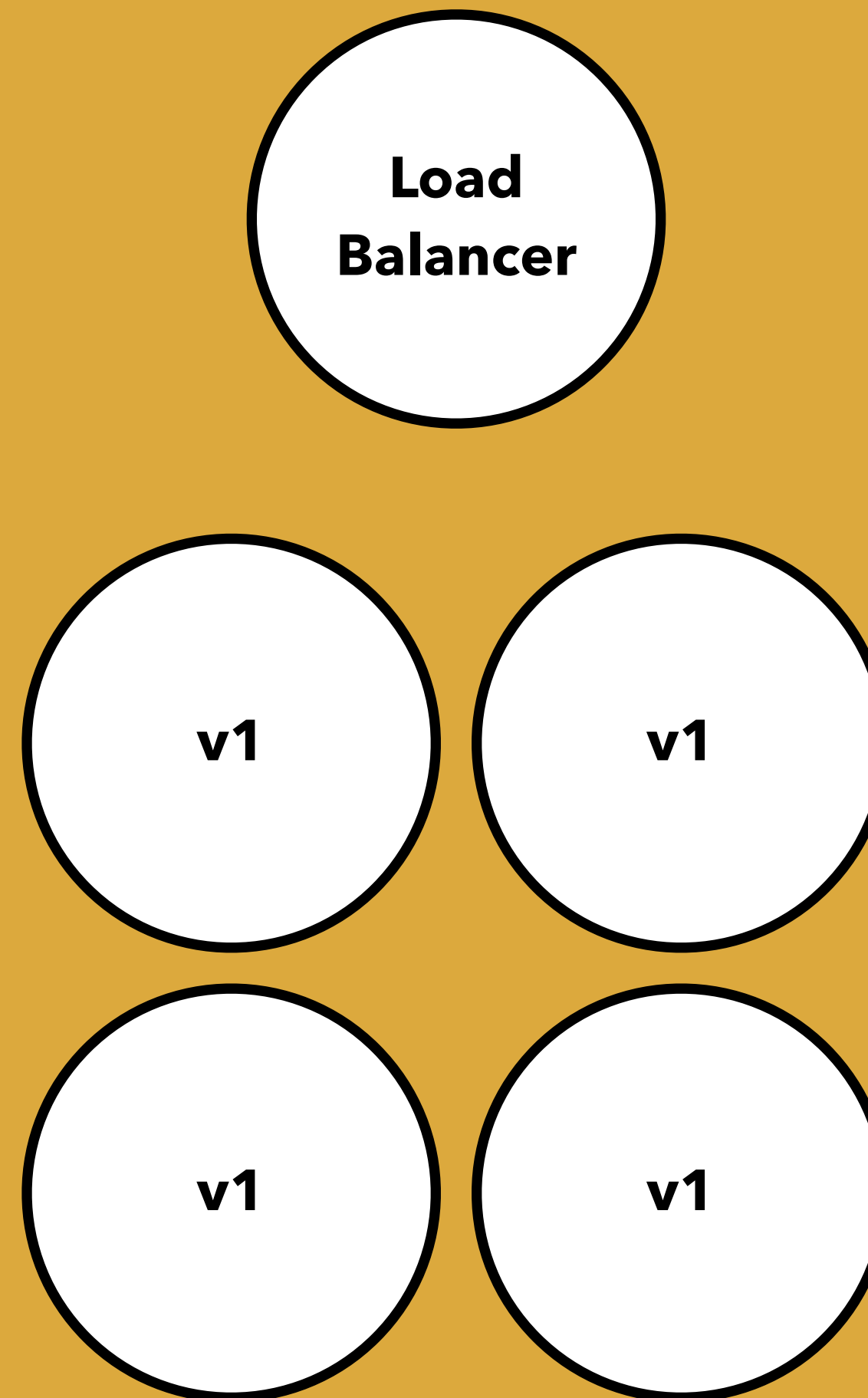
Canary



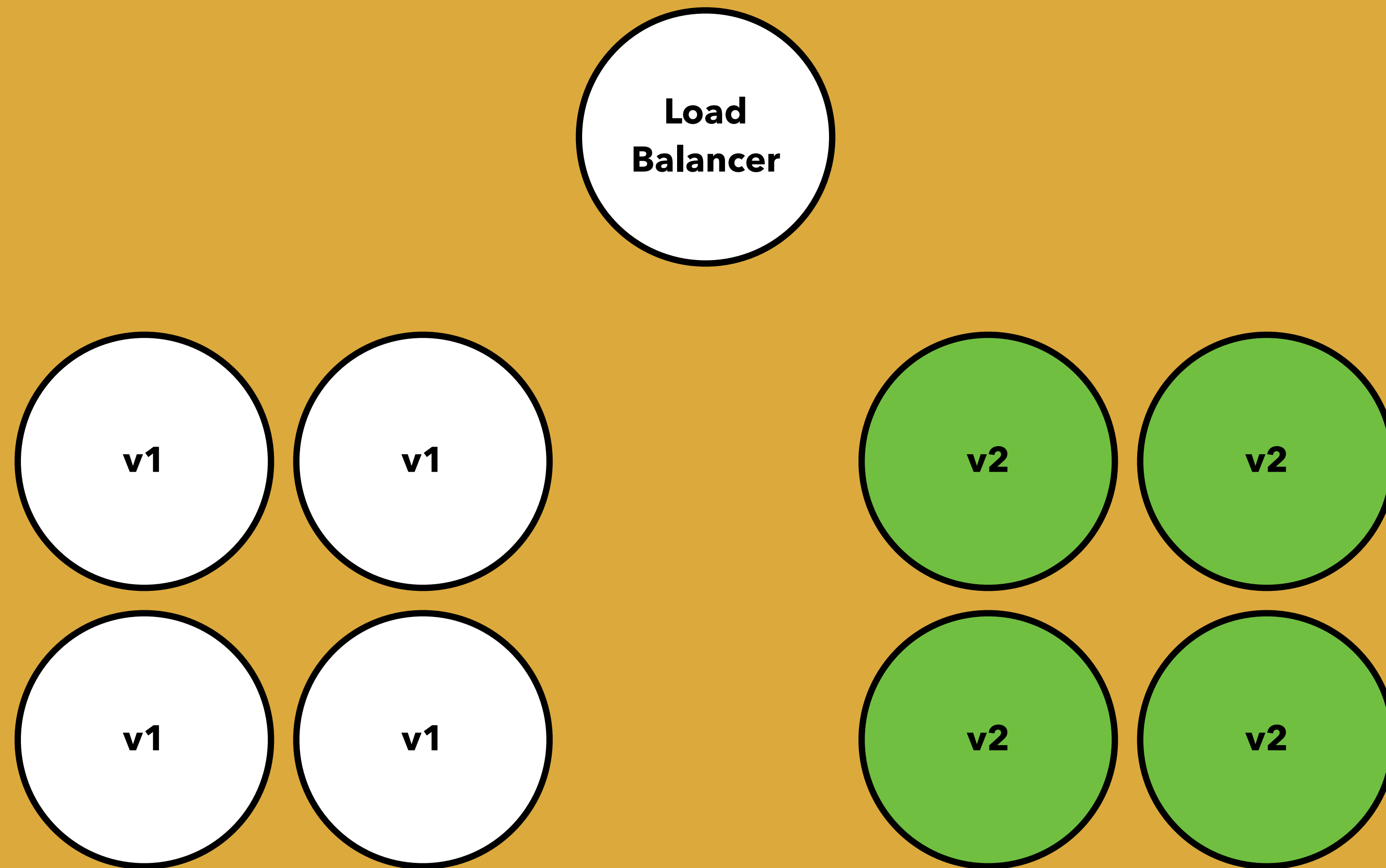
Canary



Blue-Green Deployments



Blue-Green Deployments



No Free Lunch

Automated deployment pipeline.

Centralized logging and metrics.

Discoverable infrastructure.

Happy Accidents

Everything is automated.

Experimentation is built-in.

Disaster recovery is built-in.

DO YOU REALLY NEED

**YET ANOTHER
ENVIRONMENT**

Questions?