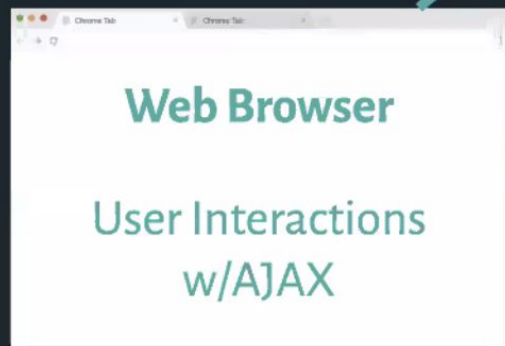


# Vue: Client-side Reactive Framework

Recitation 9

# Client Side

# Server Side



HTTP Request

HTTP Response (JSON  
or partial HTML)

**Controller**  
(Routes)

Render

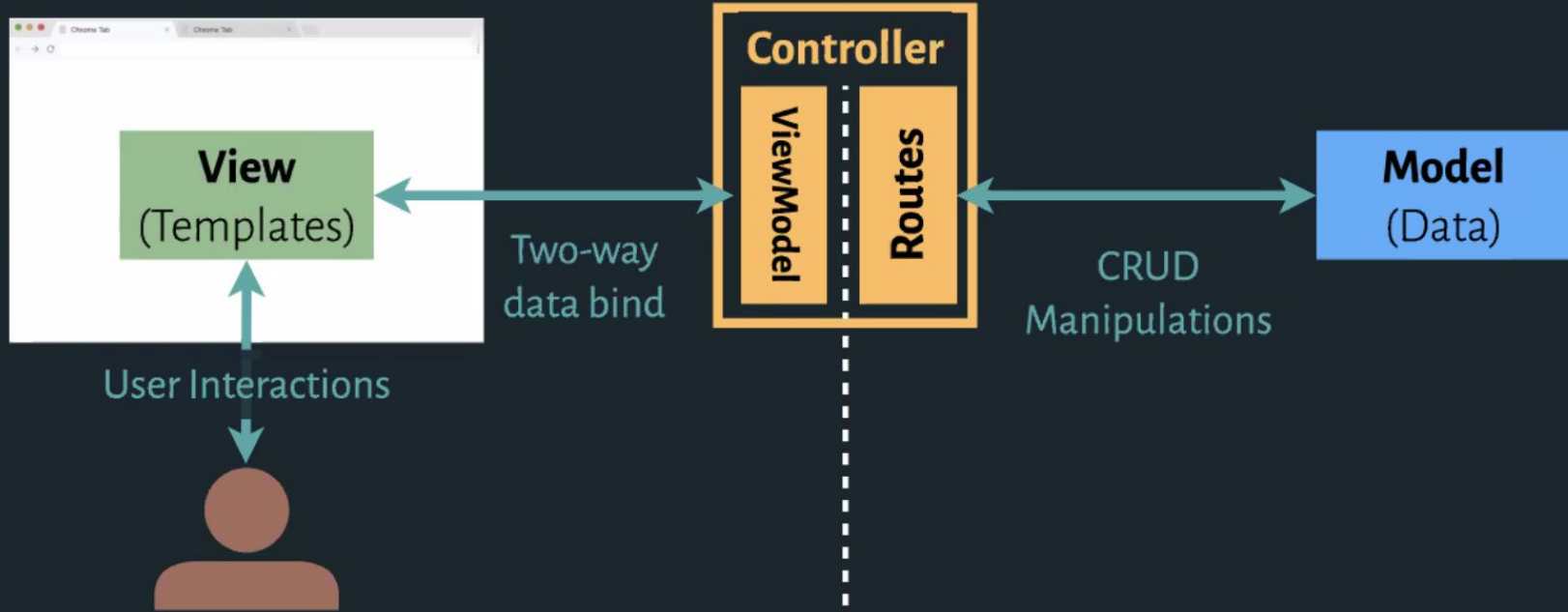
CRUD  
Manipulation

**View**  
(Templates)

**Model**  
(Data)

# Client Side

# Server Side



## Unauthenticated Landing Page

[URL Shortener](#)

User's name

**Sign In**

User's name

**Sign Up**

## Signed in as user "a"

[URL Shortener](#)

**Sign Out**

Redirected to main page by pressing  
URL Shortener

[Hi a!](#)

# URL Shortener

Enter Short Name

Enter URL

**Create Short**

## [Shorts](#)

abc

Creator ID: 1

Short URL: <http://localhost:3000/abc>

[https://www.amazon.com/Daily-Portable-LLC-Hands-HighFive/dp/B07HR8P337/ref=sr\\_1\\_2\\_sspa?](https://www.amazon.com/Daily-Portable-LLC-Hands-HighFive/dp/B07HR8P337/ref=sr_1_2_sspa?dchild=1&keywords=tiny+hands&qid=1600971426&sr=8-2-)

Hi a!

URL Shortener

Shorts

There are no shorts to display. Create one today!

Enter Short Name

Enter URL

Create Short

A screenshot of a web application titled "URL Shortener". The interface has a light blue background. At the top right, there is a link "Hi al" in blue. Below it, the word "Shorts" is written in blue and underlined. In the center, there is a large input field with the text "tiny" inside. Below the input field, there is a long, complex alphanumeric string: "1hRTzYmsd2RZZV0TmfFIZT1tzcF9hSGYmYWN0aW9uPWNhNWNlUmVkaXJY3QmZG90b3RmY2b3dDbG9ja3E0cnVl". At the bottom, there is a blue button with the text "Create Short". A red line is drawn across the bottom of the image.

The screenshot shows the URL Shortener application interface. On the left, there is a form with two input fields: "Enter Short Name" and "Enter URL". Below these fields is a "Create Short" button. A red arrow points from the "Create Short" button to the right-hand panel. The right-hand panel, titled "Shorts", displays the details of a created short URL. It shows the "tiny" logo, the "Creator ID: 1", the "Short URL: http://localhost:3000/tiny", and a long, complex URL starting with "https://www.amazon.com/DailyPurkableLLC...". At the bottom of this panel, there are three buttons: "New List", "Update", and "Delete".

# Helpful Questions

What pages do I need?

How can I break their contents into components?

Main Page

[Sign In/Sign Up](#)

# URL Shortener

**Create Short**

## Shorts

abc

Creator ID: 1

Short URL: <http://localhost:3000/abc>

[https://www.amazon.com/Daily-Portable-LLC-Hands-HighFive/dp/B07HR8P337/ref=sr\\_1\\_2\\_sspa?dchild=1&keywords=tiny+hands&qid=1600971426&sr=8-2-spons&psc=1&spLa=ZW5jcnlwdGVkUXVhbGlmaWVyPUEuXVTRLOENEQVNZU09YJmVuY3J5cHRlZElkPUEuMDIzMDZlTVo3VVpYUjQxM0dKJmVuY3J5cHRlZEFkSWQ9QTAxNTk1ODIBWklwQ1l5T1hRTzYmd2lkZ2V0TmFtZT1zcF9hdGYmYWN0aW9uPWNsaWNrUmVkaXJlY3QmZG9Ob3RMb2dDbGljaz10cnVl](https://www.amazon.com/Daily-Portable-LLC-Hands-HighFive/dp/B07HR8P337/ref=sr_1_2_sspa?dchild=1&keywords=tiny+hands&qid=1600971426&sr=8-2-spons&psc=1&spLa=ZW5jcnlwdGVkUXVhbGlmaWVyPUEuXVTRLOENEQVNZU09YJmVuY3J5cHRlZElkPUEuMDIzMDZlTVo3VVpYUjQxM0dKJmVuY3J5cHRlZEFkSWQ9QTAxNTk1ODIBWklwQ1l5T1hRTzYmd2lkZ2V0TmFtZT1zcF9hdGYmYWN0aW9uPWNsaWNrUmVkaXJlY3QmZG9Ob3RMb2dDbGljaz10cnVl)

fdsafs

Creator ID: 2

Short URL: <http://localhost:3000/fdsafs>



[Sign In/Sign Up](#)

# URL Shortener

**Create Short**

## Shorts

**abc**

Creator ID: 1

Short URL: <http://localhost:3000/abc>

[https://www.amazon.com/Daily-Portable-LLC-Hands-HighFive/dp/B07HR8P337/ref=sr\\_1\\_2\\_sspa?dchild=1&keywords=tiny+hands&qid=1600971426&sr=8-2-spons&psc=1&spLa=ZW5jcnlwdGVkUXVhbGlmaWVyPUEuXVTRLOENEQVNZU09YJmVuY3J5cHRlZElkPUEuMDIzMDZlTVo3VWpYUjQxM0dKJmVuY3J5cHRlZEFkSWQ9QTaxNTk1ODIBWklwQ1l5T1hRTzYmd2lkZ2V0TmFtZT1zcF9hdGYmYWN0aW9uPWNsaWNrUmVkaXJlY3QmZG9Ob3RMb2dDbGljaz10cnVl](https://www.amazon.com/Daily-Portable-LLC-Hands-HighFive/dp/B07HR8P337/ref=sr_1_2_sspa?dchild=1&keywords=tiny+hands&qid=1600971426&sr=8-2-spons&psc=1&spLa=ZW5jcnlwdGVkUXVhbGlmaWVyPUEuXVTRLOENEQVNZU09YJmVuY3J5cHRlZElkPUEuMDIzMDZlTVo3VWpYUjQxM0dKJmVuY3J5cHRlZEFkSWQ9QTaxNTk1ODIBWklwQ1l5T1hRTzYmd2lkZ2V0TmFtZT1zcF9hdGYmYWN0aW9uPWNsaWNrUmVkaXJlY3QmZG9Ob3RMb2dDbGljaz10cnVl)

Update

Delete

**fdsafs**

Creator ID: 2

Short URL: <http://localhost:3000/fdsafs>

# URL Shortener

Create Short

## Shorts

abc

Creator ID: 1

Short URL: <http://localhost:3000/abc>

[https://www.amazon.com/Daily-Portable-LLC-Hands-HighFive/dp/B07HR8P337/ref=sr\\_1\\_2\\_sspa?dchild=1&keywords=tiny+hands&qid=1600971426&sr=8-2-spons&psc=1&spLa=ZW5jcnlwdGVkUXVhbGlmaWVyPUEuXVTRLOENEQVNZU09YJmVuY3J5cHRlZEIkPUEuXMDIzMDZzTVo3VWpYUjQxM0dKJmVuY3J5cHRlZEFkSWQ9QTaxNTk1ODIBWklwQ1l5T1hRTzYmd2lkZ2V0TmFtZT1zcF9hdGYmYWN0aW9uPWNsaWNrUmVkaXJlY3QmZG9Ob3RMb2dDbGljaz10cnVl](https://www.amazon.com/Daily-Portable-LLC-Hands-HighFive/dp/B07HR8P337/ref=sr_1_2_sspa?dchild=1&keywords=tiny+hands&qid=1600971426&sr=8-2-spons&psc=1&spLa=ZW5jcnlwdGVkUXVhbGlmaWVyPUEuXVTRLOENEQVNZU09YJmVuY3J5cHRlZEIkPUEuXMDIzMDZzTVo3VWpYUjQxM0dKJmVuY3J5cHRlZEFkSWQ9QTaxNTk1ODIBWklwQ1l5T1hRTzYmd2lkZ2V0TmFtZT1zcF9hdGYmYWN0aW9uPWNsaWNrUmVkaXJlY3QmZG9Ob3RMb2dDbGljaz10cnVl)

UpdateDelete

fdsafs

Creator ID: 2

Short URL: <http://localhost:3000/fdsafs>

# URL Shortener

Create Short

## Shorts

Creator ID: 1

Short URL: <http://localhost:3000/abc>

[https://www.amazon.com/Daily-Portable-LLC-Hands-HighFive/dp/B07HR8P337/ref=sr\\_1\\_2\\_sspa?dchild=1&keywords=tiny+hands&qid=1600971426&sr=8-2-spons&psc=1&spLa=ZW5jcnlwdGVkUXVhbGlmaWVyPUEuXVTRLOENEQVNZU09YJmVuY3J5cHRlZElkPUEuMDIzMDZlZTVo3VpYUJQxM0dKJmVuY3J5cHRlZEFkSWQ9QTAxNTk1ODIBWklwQ1I5T1hRTzYmd2lkZ2V0TmFtZT1zcF9hdGYmYWN0aW9uPWNsaWNrUmVkaXJlY3QmZG9Ob3RMb2dDbGljaz10cnVl](https://www.amazon.com/Daily-Portable-LLC-Hands-HighFive/dp/B07HR8P337/ref=sr_1_2_sspa?dchild=1&keywords=tiny+hands&qid=1600971426&sr=8-2-spons&psc=1&spLa=ZW5jcnlwdGVkUXVhbGlmaWVyPUEuXVTRLOENEQVNZU09YJmVuY3J5cHRlZElkPUEuMDIzMDZlZTVo3VpYUJQxM0dKJmVuY3J5cHRlZEFkSWQ9QTAxNTk1ODIBWklwQ1I5T1hRTzYmd2lkZ2V0TmFtZT1zcF9hdGYmYWN0aW9uPWNsaWNrUmVkaXJlY3QmZG9Ob3RMb2dDbGljaz10cnVl)

UpdateDelete

Creator ID: 2

Short URL: <http://localhost:3000/fdsafs>

User Page

# URL Shortener

User's name

***Sign In***

User's name

***Sign Up***

Account.vue

ShortenerTitle.vue

# URL Shortener

UserSettings.vue

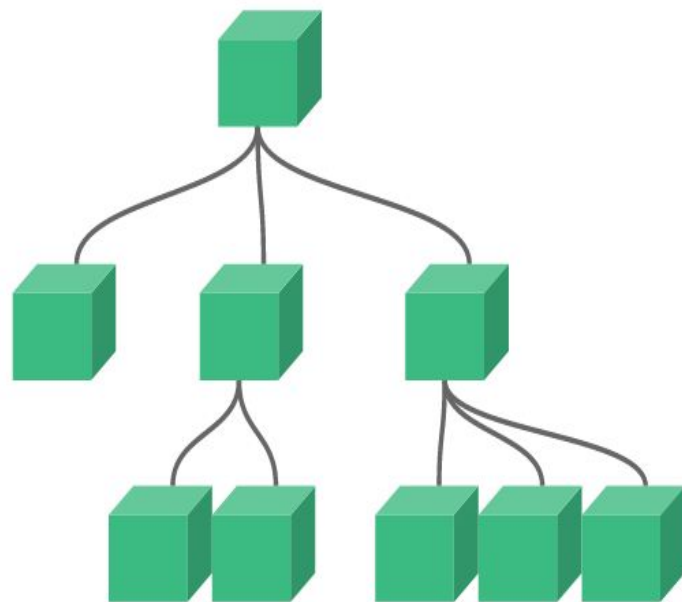
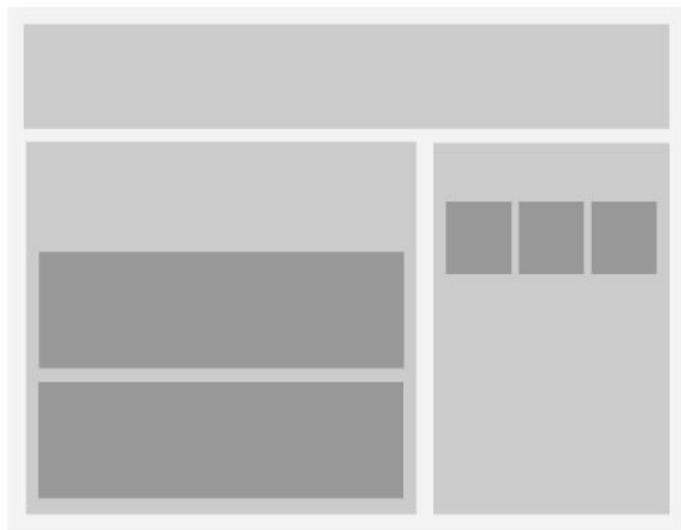
SignIn.vue

***Sign In***

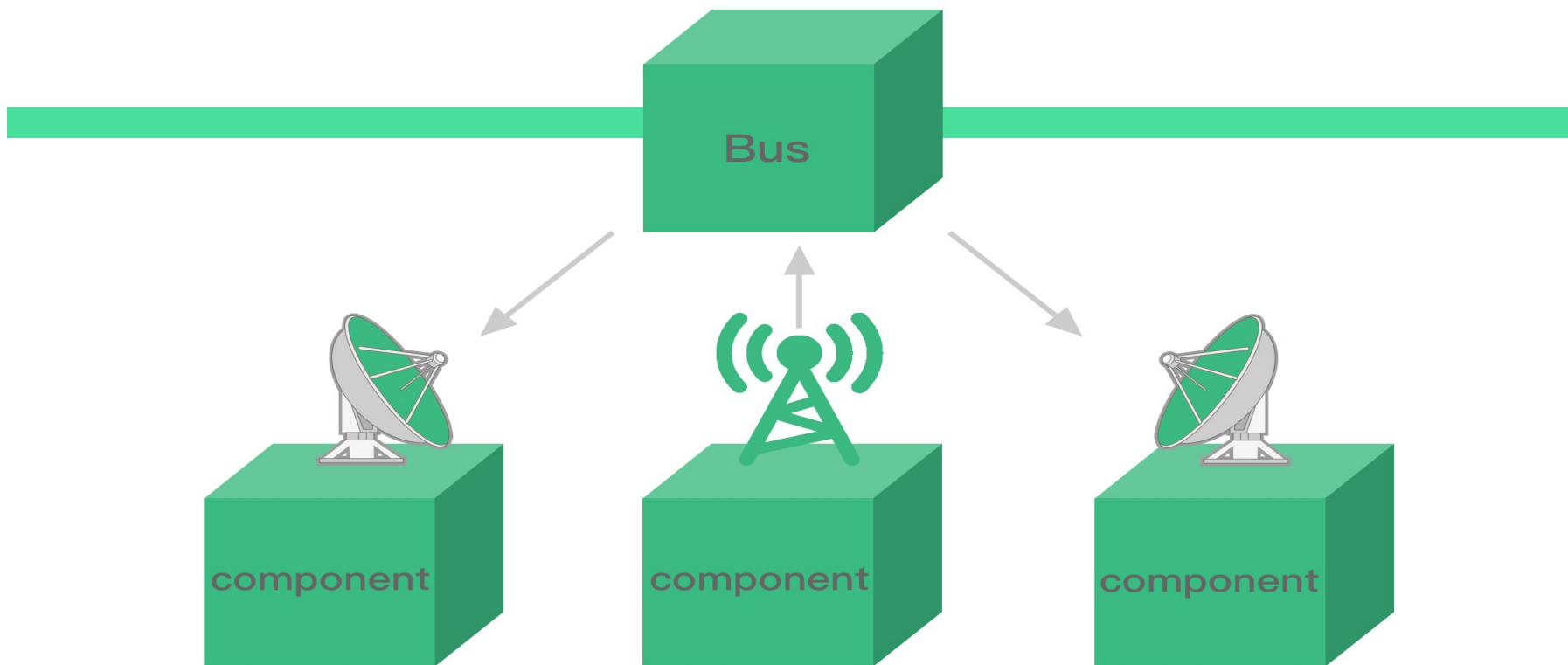
SignUp.vue

***Sign Up***

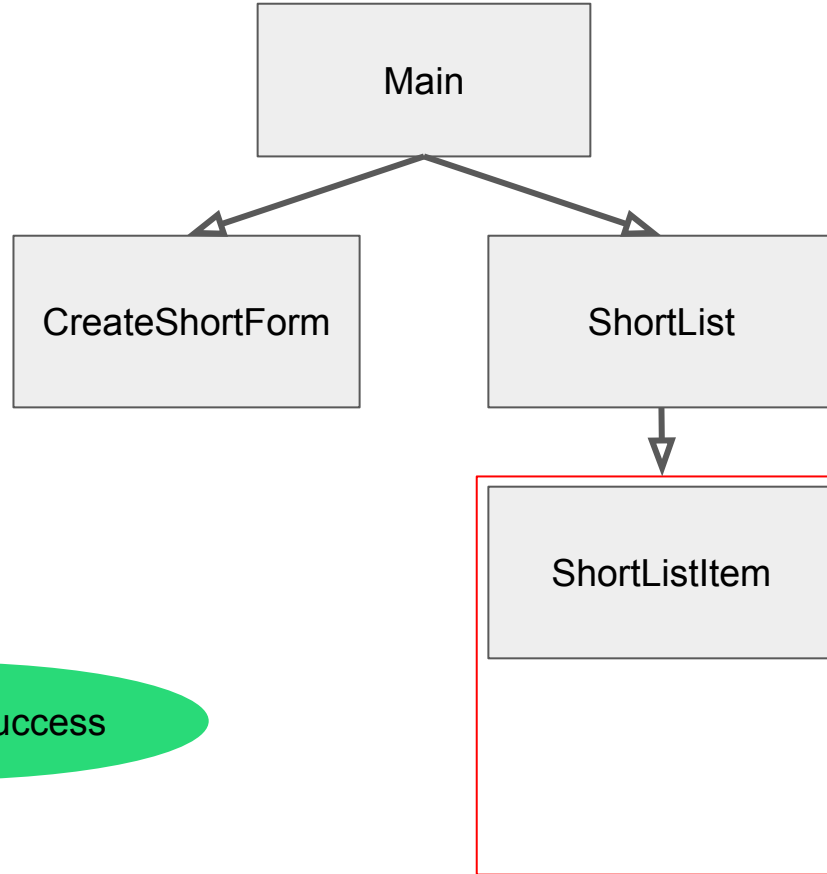
# Code Structure







Event Bus



create-short-success

