

Redux Fundamentals

INTRODUCTION



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Why Redux



Tiny JS Library (2kb)

Organize SPA data

Visualize Data Flow

Predictable State Container

Course Overview



React Crash Course

App with State Problems

Redux Integration

Redux Across Frameworks

Redux from Scratch

Who Should Watch This Course?



Front-end Web Developers

Course Repo



https://github.com/jamischarles/ps_redux

State

Convert to

Conversion Rate 1 USD → 0.94 EUR

State

```
conversionModel = {  
  fromAmt: 30,  
  toAmt: 28.20,  
  fromCur: 'USD',  
  toCur: 'EUR',  
  rate: 0.94  
}
```

Convert to

Conversion Rate 1 USD -> 0.94 EUR

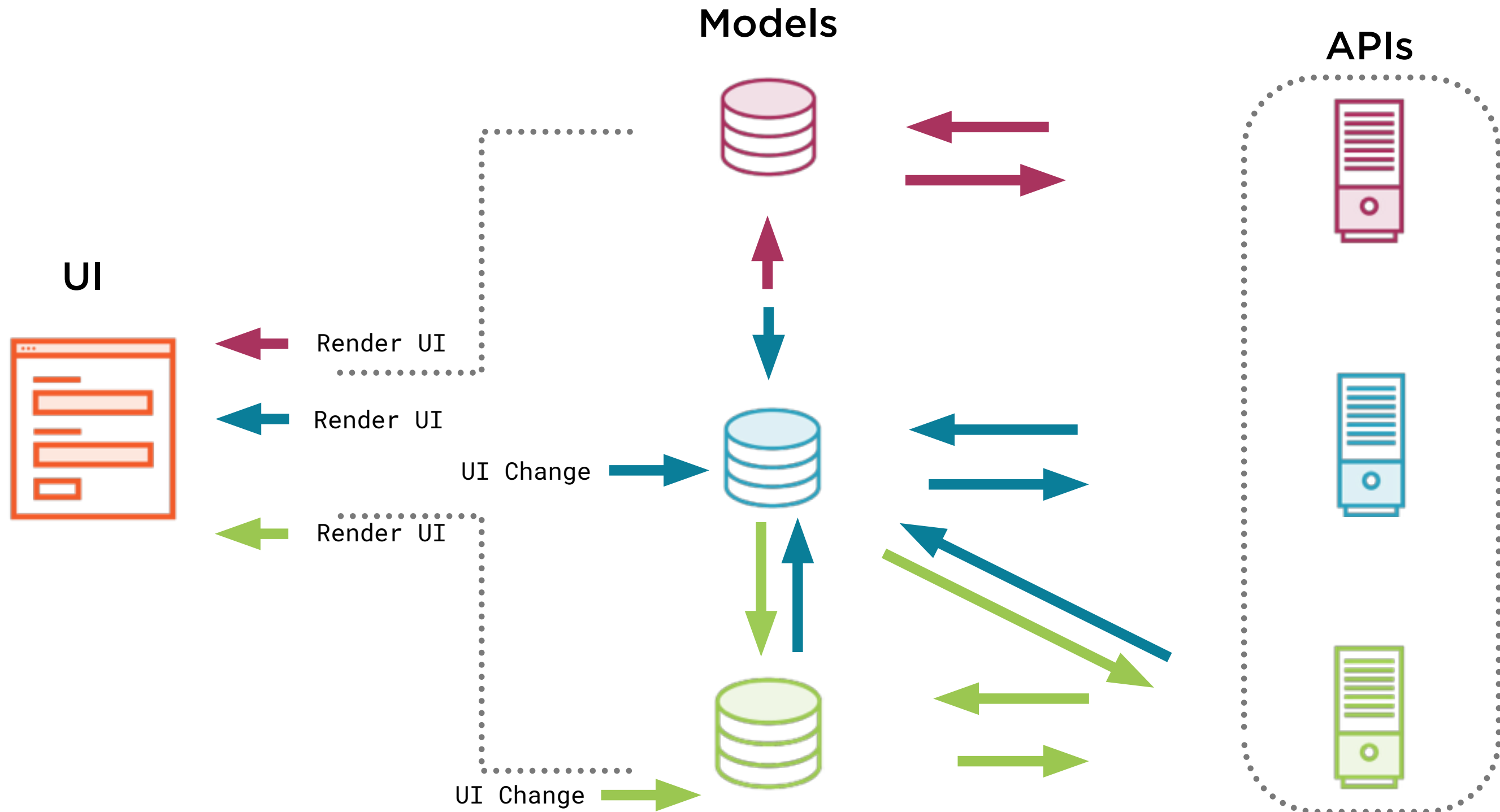
State

```
conversionModel = {  
  fromAmt: 30,  
  toAmt: 2820.00,  
  fromCur: 'USD',  
  toCur: 'EUR',  
  rate: 0.94  
}
```

Convert to

Conversion Rate 1 USD -> 0.94 EUR

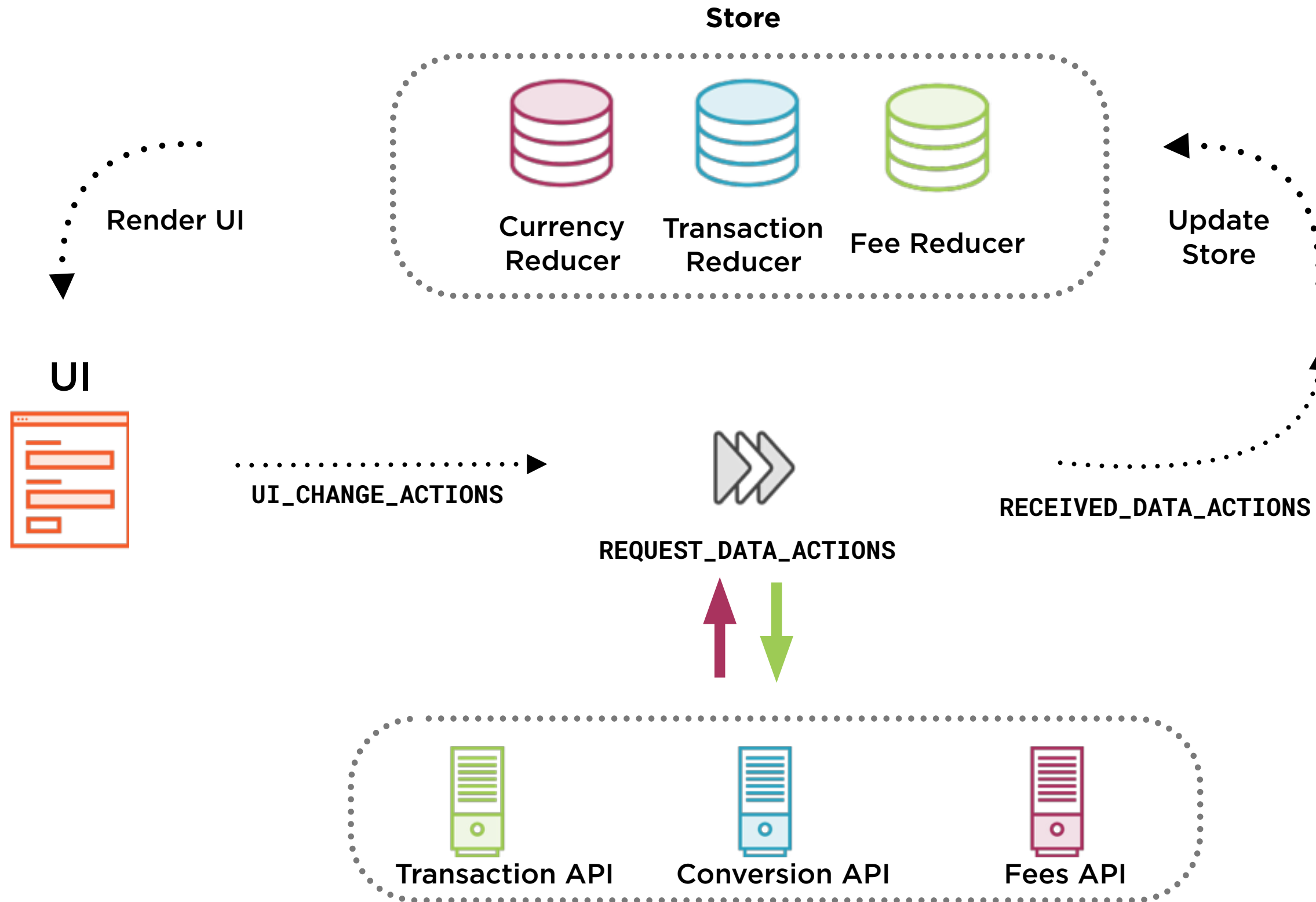
MVC Data flow



Flux

Flux → Redux

Redux Data flow



Pure Function

Pure Function

Only access local variables

No side effects

Given same input, always yields same output

```
function add(a,b) {  
    return a + b;  
}
```

```
add(3,2); // will always return 5
```

Pure Function

Biggest benefits are

- Reliability
- Simplicity

Immutability

Immutability

Allows

- State snapshots
- Undo
- Reload from url
- Time travel

Immutability

Summary

- Clone and modify copy instead of mutating original
- Important to Redux
- Helps Redux track changes, and stay performant

Summary

Redux helps with SPA state problems

Pure functions

Immutability