

Composing Components in React



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Here's the Plan

Our focus: Composition

Controller views

Prop validation via PropTypes

Mixins

Composition

```
var Avatar = React.createClass({
  render: function() {
    return (
      <div>
        <ProfilePic username={this.props.username} />
        <ProfileLink username={this.props.username} />
      </div>
    );
  }
});

var ProfilePic = React.createClass({
  render: function() {
    return (
      <img src={'https://graph.facebook.com/' + this.props.username + '/picture'} />
    );
  }
});

var ProfileLink = React.createClass({
  render: function() {
    return (
      <a href={'https://www.facebook.com/' + this.props.username}>
        {this.props.username}
      </a>
    );
  }
});

React.render(
  <Avatar username="pwh" />,
  document.getElementById('example')
);
```

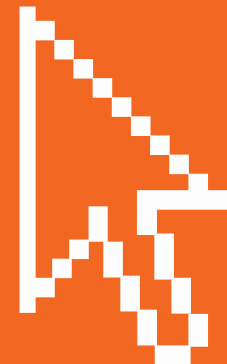
Controller Views

Top level component

Sets props on children

Interacts with stores

Controller Views



Prop Validation

```
propTypes: {  
  author:      React.PropTypes.object.isRequired,  
  onSave:      React.PropTypes.func.isRequired,  
  validate:    React.PropTypes.func.isRequired,  
  errors:      React.PropTypes.object,  
  hasErrors:   React.PropTypes.func.isRequired,  
},
```

Prop Validation

`optionalArray: React.PropTypes.array,`
`optionalBool: React.PropTypes.bool,`
`optionalFunc: React.PropTypes.func,`
`optionalNumber: React.PropTypes.number,`
`optionalObject: React.PropTypes.object,`
`optionalString: React.PropTypes.string,`

Development vs. Production Mode

Minified version is for production.

Prop Validation

Declare expected property types



Mixins

For cross-cutting concerns

Share code between multiple components

```
var ManageAuthorPage = React.createClass({  
  mixins : [  
    Router.Navigation,  
    Router.State,  
  ],  
  ...  
});
```

Summary

Controller Views “Smart” components that pass data down via props

PropTypes Validate props

Mixins Share behavior among multiple components

Statics Define static methods