

# SPIKE CHEMPLANNER



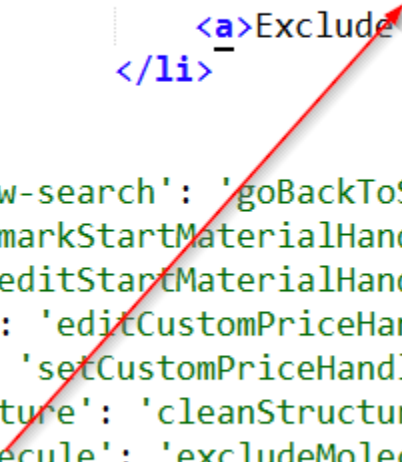
**LETS GET STARTED :)**

what's the  
Problem?

# DIRECTLY TOUCHING THE DOM FOR EVENT BINDING, ATTRIBUTES CHANGE ETC..

- put direct dependency on selector engine

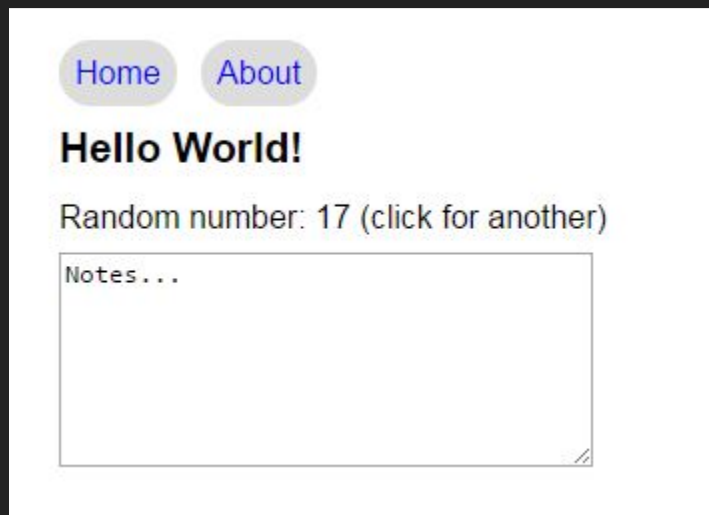
```
/**                                     </li>
 * Events for the view
 * @property events
 * @type Object
 */
events: {
    'click .molecule-new-search': 'goBackToSearchHandler',
    'click .mark-sm': 'markStartMaterialHandler',
    'click .edit-sm': 'editStartMaterialHandler',
    'click .edit-price': 'editCustomPriceHandler',
    'click .set-price': 'setCustomPriceHandler',
    'click .clean-structure': 'cleanStructureDisplayHandler',
    'click .exclude-molecule': 'excludeMoleculeHandler',
    'mouseover .dropdown-submenu': 'positionSubMenuHandler'
},
```



The image shows a red arrow pointing from the 'exclude-molecule' event handler in the JavaScript code to the corresponding HTML element in the template. The HTML element is a list item with the class 'exclude-molecule' containing an anchor tag with the text 'Exclude Molecule'.

# BACKBONE - RE-RENDERING VIEW WILL LOOSE OUR STATE

- Leads to creating multiple views for small state change or any ui state change



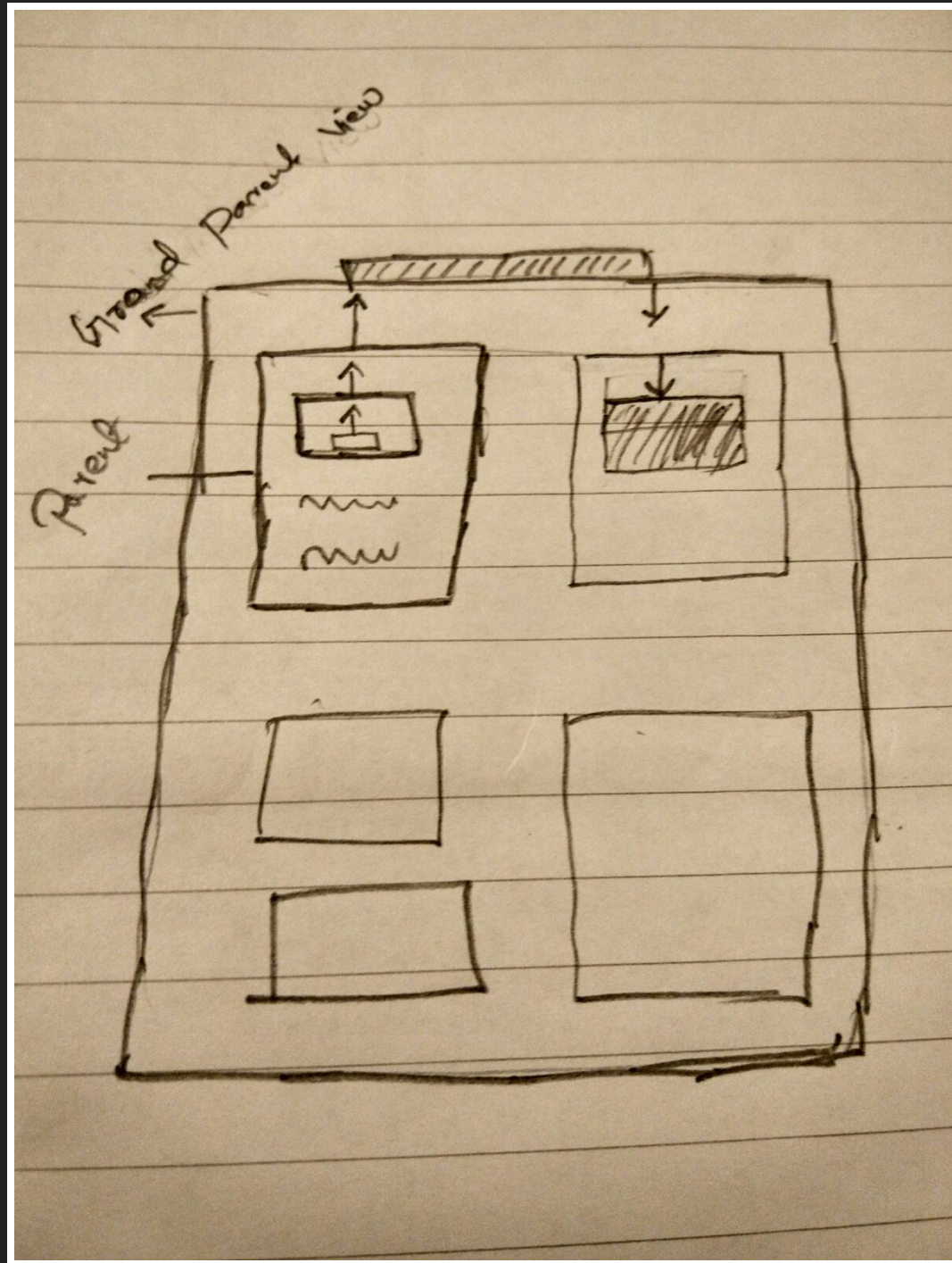
- Most of this views cannot be re-used



# MANAGING THE HISTORY FOR COMPLEX APPLICATION IS DIFFICULT



**EVENTS - IN SUB-VIEWS IS A NIGHTMARE TO DEBUG**





# DECORATOR + MIXIN PATTERN

- Difficult to test decorators
- Order of execution not clear
- Not clear what is applied when decorators are used
- Poorly named
- Overzealous abstraction
- Extended from multiple files(hard to follow)
- Too rigid

# CHANGING/CLEANING API END POINTS( PERMISSIONS, ROLES, PERMISSIONS GROUPS)

- Validation(Back-end and Front-end)
- Routing(error pages)
- Error in session

# DRAW VIEW WITHOUT DATA( CACHE VIEWS )

## THE RE RENDER( MANUAL WAY )

- Poor separation of view + data
- Mostly use singletons

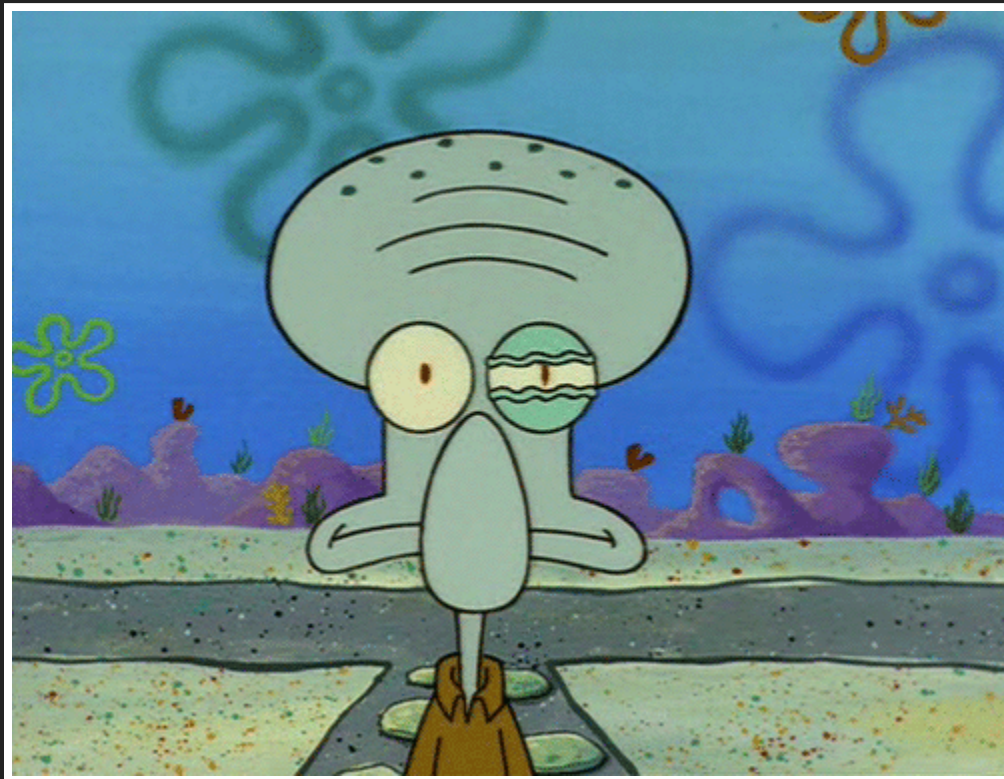
```
56         if (this.get('queryHistoryId')) {
57             this.url = this.url + this.get('que
58         } else {
59             this.url = this.url + this.id;
60         }
61     }
62 }
63 });
64
65 return new EditStructureModel();
66 });
67
```

- Hard to test dependencies
- Partial landing of view before session verification

OMG LETS CHANGE EVERYTHING TO  
REACT NOW

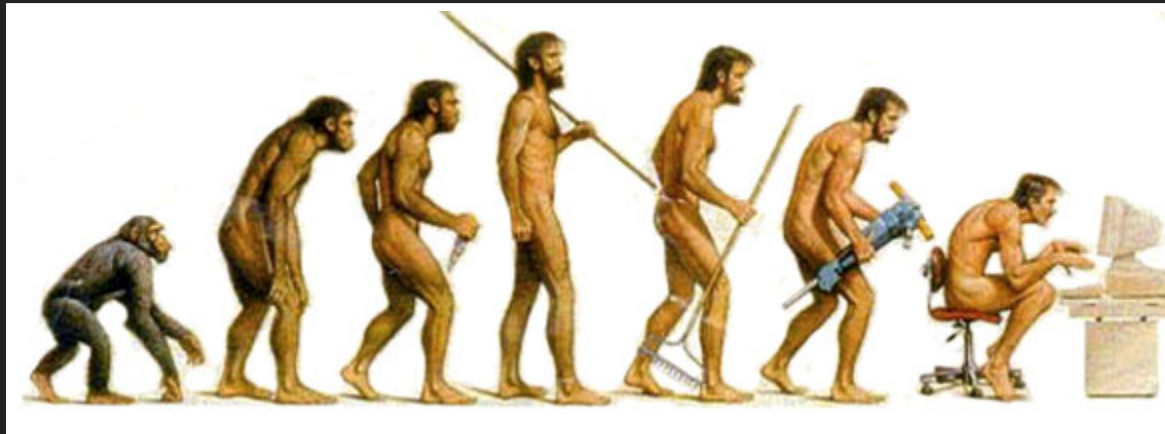


# CHEMPLANNER(34600) AND HUB (8642) SCALED UP TO 43,242 LINES OF CODE





# PROGRESSIVE ENHANCEMENT



## SETUP THE BASICS

- Can we inject react view in to backbone view?
- Does react support requirejs?
- How do we transpile jsx on the fly?
- Can we use same build for backbone and react?
- Can we serve backbone views and react views from single file which we use in production?
- Can we add linting support for js, es6 and jsx



**LET'S SEE WHAT YOU'VE GOT**





## TODOS

- Form validation
- Unit testing - one option (enzyme)
- Server side rendering



**QUESTIONS**

*Thank you!*