



ATD WEST FRONT END SOLUTIONS

overview and brief comparison



HANDLEBARS/JQUERY

homebrew framework solution



HANDLEBARS/JQUERY

homebrew framework solution

Pros

- Fewer 3rd Party Dependencies
- Complete control over lifecycle
- Componentized Solution
- Testable (in theory)
- Simple to Debug (At First)
- Global Data Object

Cons

- Imperative DOM Manipulation
- No community support
- Nested logic in templates
- Manual data binding
- Manual updates
- No bundling
- Difficult to Debug (At Scale)
- Global Data Object

.hbs templates

interactive code overview

```
{{#ifCond products.[0].productPromotions.length '>' '0'}}
  {{#if products.[0].isSellableInZip}}
    {{#ifCond products.[0].productPromotions.length '>' '1'}}
      <div class="product-promotions row">
        <div class="promotion-header row">
          {{#if @root.products.[0].displayPromotion}}
            <div class="col-md-12">
              <strong>More savings available</strong>
            </div>
          {{/if}}
        </div>
      <div class="row">
        {{#each products.[0].productPromotions}}
          {{#ifCond this.promotionType '==' 'RebatePromotion'}}
            <div class="mir-main">
              <div class="mir-marquee" id="original-mir-marquee">
                <div class="amount">
                  ${{this.rebateDollarOff}} back
                </div>
                <div class="pointer">
                  <div class="card">
                    {{#ifCond this.rebateGiftCardType '==' 'Visa'}}
                      <svg class="visa">
                        <!--
                      </svg>
                    {{/ifCond}}
                  </div>
                </div>
              </div>
            </div>
          {{/ifCond}}
        {{/each}}
      </div>
    </div>
  {{/if}}
{{/ifCond}}
```

JavaScript Controller Logic

interactive code demo

```
init: function() {
  console.log('initing ACC.productRecommedation');
  // handlebarsHelpers.init();
  ACC.productRecommendationComponent.populateDataStore();
  if ($('#sticky-anchor-rec').length) {
    $(window).scroll(function () {
      ACC.productRecommendationComponent.stickyHeaderRec();
    });
  }
},
populateDataStore: function () {
  var isPrePopulated = false;
  var dataChanged = false;
  if (window.dataStore) {
    if ($.cookie('TBFITMENT')) {
      var fitment = $.cookie('TBFITMENT').replace(/_/g, ':');
      ACC.productRecommendationComponent.recommendUrl += "?fitments=" + fitment;
    }
    if (ACC.productRecommendationComponent.zipcode) {
      ACC.productRecommendationComponent.recommendUrl += "&zipcode=" +
ACC.productRecommendationComponent.zipcode;
    }
    //check if rec data has been pre-populated;
    // render if so
  }
}
```



VUE.JS

hybrid ssr/frontend framework



VUE.JS

hybrid ssr/frontend framework

Pros

- Componentized Solution
- Highly Optimized
- Most Performant
- Reactive Updates
- Fewer Dependencies
- Testable (in theory)

Cons

- Compromised Implementation
- Little Institutional Knowledge
- Difficult Debugging

Vue/JSP Hybrid

interactive code demo

```
<!-- Start Shipping Vue component --%>
<c:if test="${!stylePage && (products[0].inStock or products[1].inStock)}">
  <div id="shippingVueWrapper">
    <div id="productShippingVue"
      data-product-type="${products[0].productType}"
      data-is-staggered="${hasStaggered}"
      data-brand-name="${product.brandName}"
      data-api-part="${urlPart}${itemId}">
    </div>
  </div>
</c:if>
<!-- End Shipping Vue component --%>
<!-- Start Promotions Vue component --%>
<div id="productPromotionsVue"
  class="component loading"
  data-is-style-page="${stylePage}"
  data-sku="${urlPart}${itemId}"
  data-is-MAP="${isMAP}">
</div>
<!-- End Promotions Vue component --%>
<!-- Start of Product Accordion Component --%>
<c:choose>
  <!-- Available sizes drop down SHOULD show on style pages, non-cookied variant pages, and wheels (all
states)
```




JSP/JSTL

server side rendering



JSP/JSTL

server side rendering

Pros

- Fastest Complete Page Load
- Componentized Solution
- Few Dependencies
- Gold Standard SEO

Cons

- Very Difficult to Test
- Less Performant UI
- Awkward User Interactions
- Difficult to Hold State

Animation of new list page



REACT/REDUX

client side rendered SPA for rubbr.com



REACT/REDUX

client side rendered SPA for rubbr.com

Pros

- Huge Community
- Very Performant
- Componentized Solution
- Great Build Ecosystem
- Optimized for Microservices
- Robust State Management
- Ridiculously Easy to Test

Cons

- 16(!!) Files for New Component
- Opinionated Implementation
- Heavy 3rd Party Dependencies
- Difficult to Onboard
- Steep Learning Curve

