

Programming Paradigms & jQuery

**The
Complete
Web
Developer in
2018**

The Complete Web Developer in 2018
Zero to Mastery
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DOM manipulation has a lot of methods that we need to check for browser compatibility (e.g. caniuse.com)

jQuery - library created to make DOM manipulation easier and more compatible

The problem is that jQuery is...

IMPERATIVE - must tell code exactly what to do

- One action dependent on another action which is dependent on another action....
- Gets complicated, more bugs/errors in codebase
- Pyramid of doom

```
1 function startParentArray(id) {
2   getIssueDetail(id).success(function(data) {
3     var source = $('#parenttemplate').html();
4     var tpl = Handlebars.compile(source);
5     if(data.issue.parent) {
6       nextparent = data.issue.parent.id;
7       getIssueDetail(nextparent).success(function(data1) {
8         $('#parenttable').append(tpl(data1.issue));
9         if(data1.issue.parent) {
10          nextparent = data1.issue.parent.id;
11          getIssueDetail(nextparent).success(function(data2) {
12            $('#parenttable').append(tpl(data2.issue));
13            if(data2.issue.parent) {
14              nextparent = data2.issue.parent.id;
15              getIssueDetail(nextparent).success(function(data3) {
16                $('#parenttable').append(tpl(data3.issue));
17                if(data3.issue.parent) {
18                  nextparent = data3.issue.parent.id;
19                  getIssueDetail(nextparent).success(function(data4) {
20                    $('#parenttable').append(tpl(data4.issue));
21                    if(data4.issue.parent) {
22                      nextparent = data4.issue.parent.id;
23                      getIssueDetail(nextparent).success(function(data5) {
24                        $('#parenttable').append(tpl(data5.issue));
25                      });
26                    }
27                  });
28                }
29              });
30            }
31          });
32        }
33      });
34    }
35  });
36 }
```

<http://youmightnotneedjquery.com/>

Summary: First we had HTML, then CSS and JavaScript. Then came jQuery to make our JavaScript easier. Then came more libraries that made JavaScript even better, like React (which is DECLARATIVE and what we will be using)

Programming Paradigms

Imperative - uses statements to change a program's state, implements algorithms in explicit steps (HOW to do)

- Procedural:

- procedures contain a series of computational steps to be carried out

- Object oriented:

- objects (have attributes) are instances of classes. Code is in the form of procedures (methods)
ex: state-based control at Dow Chemical using ABB-800xA

Note: Procedures = functions, methods, routines, or subroutines

Declarative - expresses the logic of a computation without describing its control flow (WHAT to do)

- Functional:

- evaluates mathematical functions and avoids changing-state and mutable data