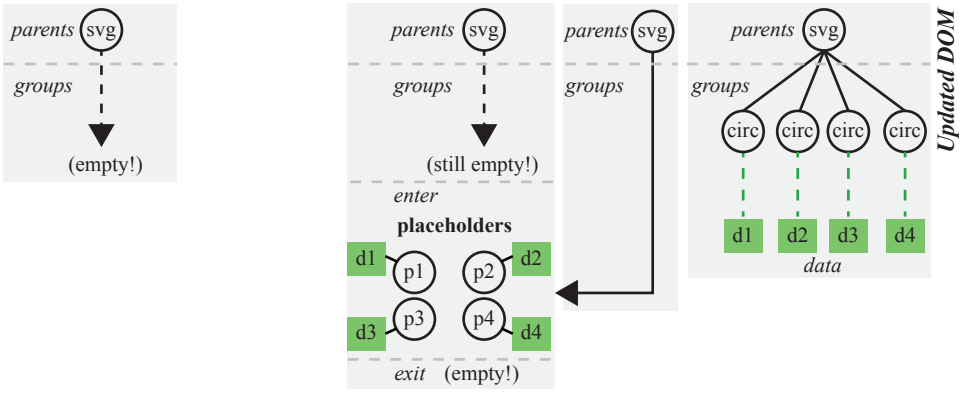
Creating new elements from empty selection

Data: arr = [d1 d2 d3 d4] (array of length 4)

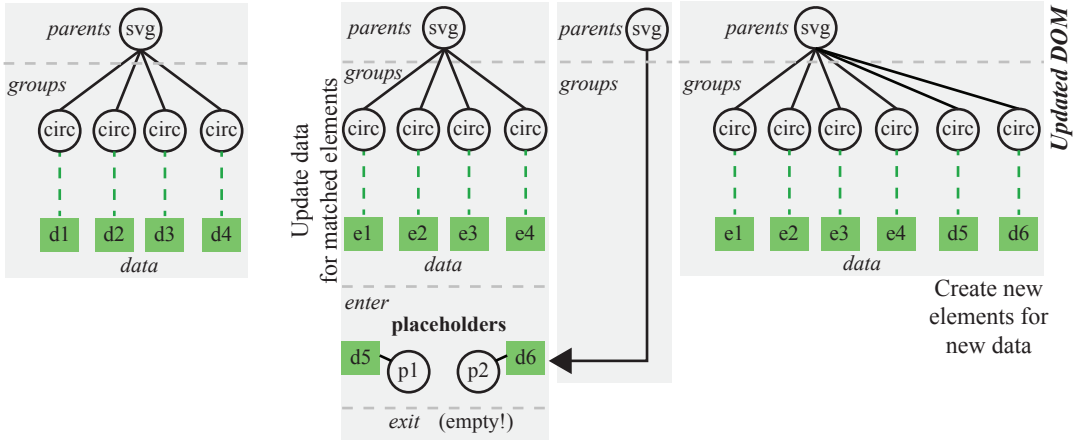
d3.select('svg').selectAll('emptyempty') . data(arr1) . enter() . append('circle')



Updating existing elements, adding new elements (*data does not match with elements*)

Data: arr2 = [e1 e2 e3 e4 d5 d6] (array of length 6)

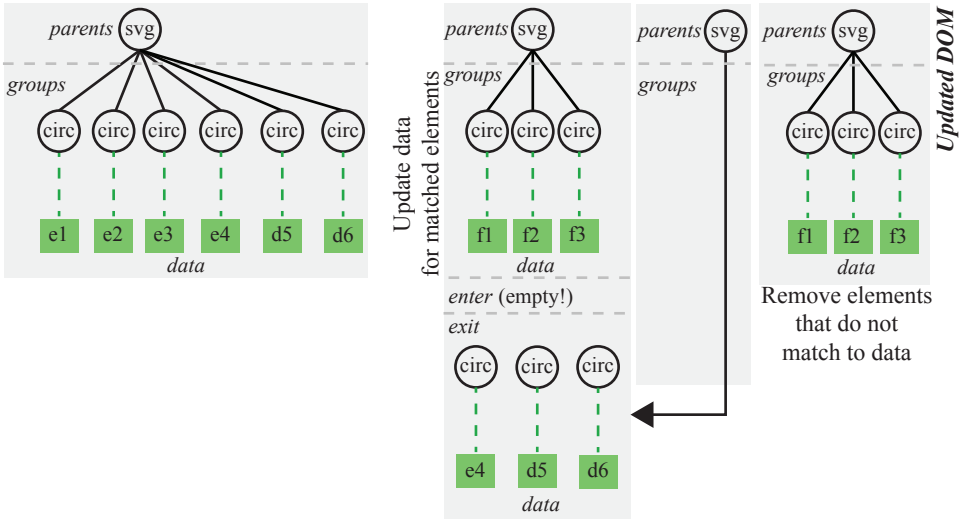
d3.select('svg').selectAll('circle') . data(arr2) . enter() . append('circle')



Updating existing elements, removing old elements (*elements do not match with data*)

Data: arr3 = [f1 f2 f3] (array of length 3)

d3.select('svg').selectAll('circle') . data(arr3) . exit() . remove()



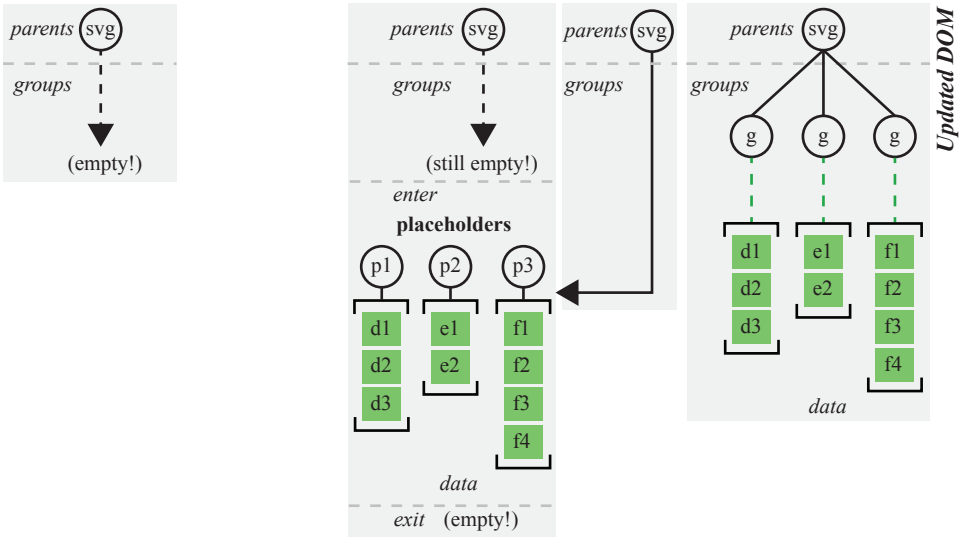
Nested Data Joins

First data join: create group element for each item in array

Data: arr = [[d1 d2 d3] , [e1 e2] , [f1 f2 f3 f4]] (array of length 3)

(array of length 3) (array of length 2) (array of length 4)

d3.select('svg').selectAll('emptyempty') . data(arr) . enter() . append('g')



Second data join: for each "g" element, create "rect" elements from its data array.

d3.select('svg').selectAll('g').selectAll('empty') . data(d => d) . enter() . append('rect')