```
2
       "nodes": [
                                                                                                                                    a
          {"name": "a", "depth": 0}, {"name": "b", "depth": 1}, {"name": "c", "depth": 1}, {"name": "d", "depth": 2},
 3
                                                                                                                      b
 4
          {"name": "e", "depth": 2}, {"name": "f", "depth": 2}
 5
 6
 7
       "links": [
          {"source": 0, "target": 1},
 8
         {"source": 0, "target": 2}, {"source": 1, "target": 3},
                                                                                                             C
 9
10
          {"source": 2, "target": 4},
11
          {"source": 2, "target": 5}
12
13
14
       "constraintDefinitions": [
15
            "name": "layer",
16
            "sets": {"partition": "depth"},
17
                                                                                                                      3 sets: [a], [b,c], [d,e,f]
            "forEach": [{ "constraint": "align", "axis": "x" }]
                                                                                                                              3 constraints
         },
19
20
21
            "name": "sort",
22
            "sets": ["layer"],
                                                                                                                              1 set: "layer"
            "forEach": [{ "constraint": "order", "axis": "y", "by": "depth" }]
                                                                                                                              8 constraints
24
          }
25
       ]
26 }
1
    {
 2
       "nodes": [
                                                                                                                                    C
          {"name": "a", "_id": 0, "depth": 0}, {"name": "b", "_id": 1, "depth": 1}, {"name": "c", "_id": 2, "depth": 1}, {"name": "d", "_id": 3, "depth": 2},
 3
 4
          {"name": "e", "_id": 4, "depth": 2}, {"name": "f", "_id": 5, "depth": 2},
 5
            "name": "set0_order_boundary_0","_id": 6,
            "cid": "set0_order",
            "temp": true, "fixed": true,
            "width": 1, "height": 1, "padding": 0,
            "boundary": "y", "y": 0, "x": 0,
                                                                                                                      Two temporary nodes
12
                                                                                                                     are added to the graph
                                                                                                                       to act as boundaries
            "name": "set0_order_boundary_1", "_id": 7,
                                                                                                                     for the order constraint.
14
            "cid": "set0_order",
            "temp": true, "fixed": true,
            "width": 1, "height": 1, "padding": 0, "boundary": "y", "y": 30, "x": 10,
         }
20
       "links": [...],
21
       "constraints": [
28
29
            "type": "alignment", "axis": "y"
30
            "offsets": [{"node": 0,"offset": 0}],
31
            "_type": "layer_align"
33
          },
                                                                                                                         We generate three
34
                                                                                                                       WebCoLa alignment
            "type": "alignment", "axis": "y"
                                                                                                                        constraints: one for
            "offsets": [{"node": 1,"offset": 0},{"node": 2,"offset": 0}],
                                                                                                                      each set produced by
37
            "_type": "layer_align"
                                                                                                                        the SetCoLa "layer"
          },
                                                                                                                       constraint definition.
39
            "type": "alignment", "axis": "y",
40
41
            "offsets": [{"node": 3,"offset": 0},{"node": 4,"offset": 0},{"node": 5,"offset": 0}],
            "_type": "layer_align"
42
          {"_type": "set0_order", "axis": "y"
                                                           "gap": 0, "left": 0, "right": 6},
44
         {"_type": "set0_order", "axis": "y", 
{"_type": "set0_order", "axis": "y",
                                                           "gap": 0,
                                                                        "left": 6, "right": 1},
45
                                                                                                                         We generate eight
                                                           "gap": 0, "left": 1, "right": 7},
                                                                                                                         WebCoLa position
                                                           "gap": 0, "left": 6, "right": 2},
                                                                                                                     constraints to order the
47
                                                           "gap": 0,
                                                                                       "right": 7},
                                                                                                                      three layers based on
                                                                        "left": 2,
                                                                                                                        the SetCoLa "sort"
                                                                                       "right": 3},
                                                           "gap": 0, "left": 7,
                                                                                                                       constraint definition.
                                                                                       "right": 4},
                                                           "gap": 0, "left": 7,
          {"_type": "set0_order", "axis": "y",
                                                           "gap": 0,
                                                                        "left": 7,
                                                                                       "right": 5}
52
53 }
```

1

{