

```

public class Graph {
    ...
    Edge add(Node n, Node m) {
        Edge e = new Edge(n, m);
        nodes.add(n); nodes.add(m); edges.add(e);
        if (Config.WEIGHTED) { e.weight = new Weight(); }
        return e;
    }
    Edge add(Node n, Node m, Weight w) {
        if (!Config.WEIGHTED) { throw new RuntimeException(); }
        Edge e = new Edge(n, m);
        nodes.add(n); nodes.add(m); edges.add(e);
        e.weight = w;
        return e;
    }
    ...
}

```

```

public class Node {
    Color color;
    ...
    Node() {
        if (Config.COLORED) {
            color = new Color();
        }
    }
    void print() {
        if (Config.COLORED) {
            Color.setDisplayColor(color);
        }
        System.out.print(id);
    }
}

```

```

public class Color {
    static void setDisplayColor(Color c) { ... }
}

```

## Code Tangling

```

public class Weight {
    void print() { ... }
}

```

```

public class Edge {
    Weight weight;
    ...
    Edge(Node _a, Node _b) {
        a = _a; b = _b;
        if (Config.WEIGHTED) { weight = new Weight(); }
    }
    void print() {
        a.print(); b.print();
        if (Config.WEIGHTED) { weight.print(); }
    }
}

```