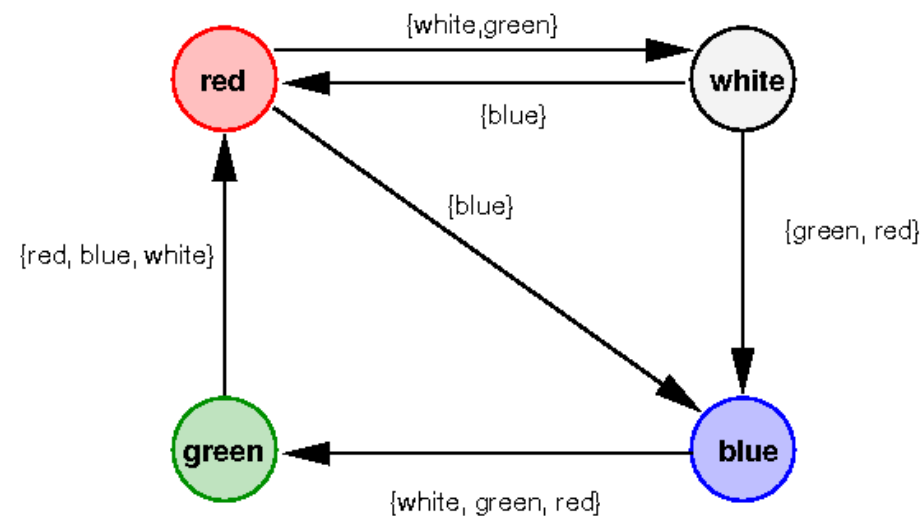# Graph Structures

The aim of this assignment, which is not the same as I described in the class, is to implement different types of Graphs in Java. There are two main types of graphs: directed and undirected. Please check the course slides for more information.

Task 1: Create two different classes: `DirectedGraph` and `UndirectedGraph`, and implement the following methods.

- `addNode(Node n)`

- `addNeighbour(Node p, Node n)`

- `addNeighbourList(Node p, List<Node> nList)`

- `getNeighboursOfNode(Node n)`

- `deleteNeighbour(Node p, Node n)`

Task 2: In the previous task, the links between the nodes were not "labelled". Now we need to implement a labelled directed graph. An example of a labelled graph is shown in the following Figure.

Extend `DirectedGraph` class so the links between nodes are labelled. Think how can you update the functions for this class as described in Task 1; and off course implement them :)