Lab04

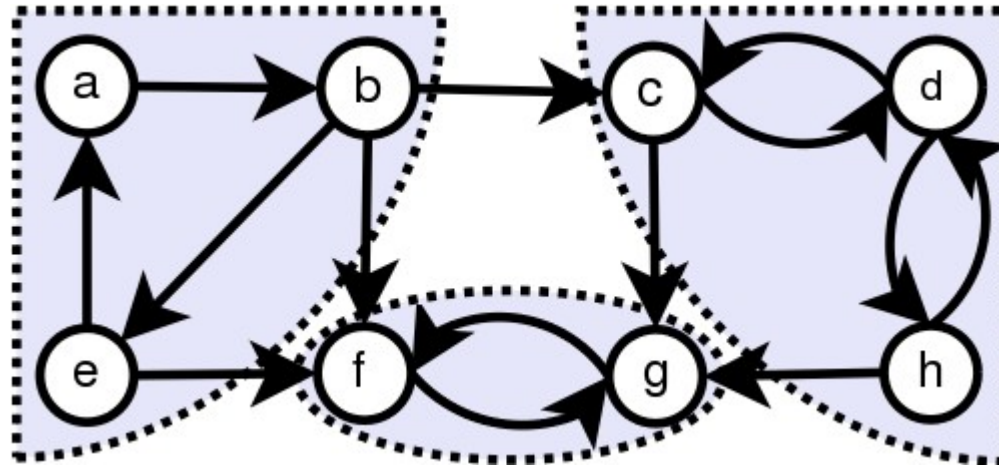## Strongly Connected Components

A SCC

- A SCC is simply a set of nodes which have a path in both directions.

  - For example node **a** is strongly connected to node **b**, if a path exists from **a** to **b** and from **b** to **a**

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An Example of SCCs

- The highlighted sections in the above picture are strongly connected components.

- As you can see there are 3 SCCs

A simple brute force algorithm

- Start by picking a node:
  - Search through the list of strongly connected components to see if this node is Strongly connected to any of the groups. (If a node is Strongly connected to any element of SCC group is is strongly connected to all the nodes in the group by definition)
  - If this node is not strongly connected to any of the existing groups make a new SCC group and add it to the list
  - Repeat from the the first step

Today's Lab

- Implement a SCC algorithm using the provided Lab04.java.

- You must implement 2 methods: isSCC() and findSCC()