

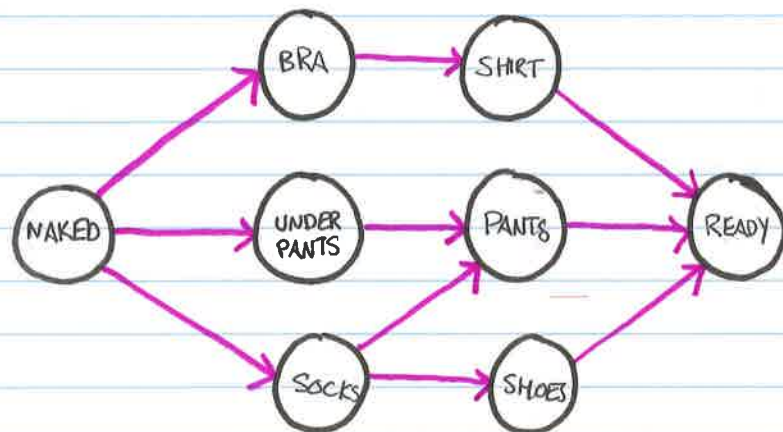
DIRECTED ACYCLIC GRAPH

... DAG ...

- A DEPENDENCY GRAPH
- A PARENT MUST BE COMPLETED BEFORE ITS CHILDREN

SOURCE: A NODE WITH NO IN EDGES

SINK: A NODE WITH NO OUT EDGES



- You CAN PUT ON YOUR SHIRT BEFORE YOUR PANTS
- You CANT PUT ON SHOES WITHOUT SOCKS

SHORTEST PATH PROBLEM

- ON A DAG IT'S LIKE DIJKSTRA, BUT A LITTLE DIFFERENT
- SHORTEST PATH TO COMPLETE ALL TASKS IN PROPER ORDER
- BOUND BY $O(V \cdot E)$

PROCESS:

- 1) GET TOPOLOGICAL SORT (T) USING DFS
- 2) MODIFY DIJKSTRA
↳ USE T INSTEAD OF PQ