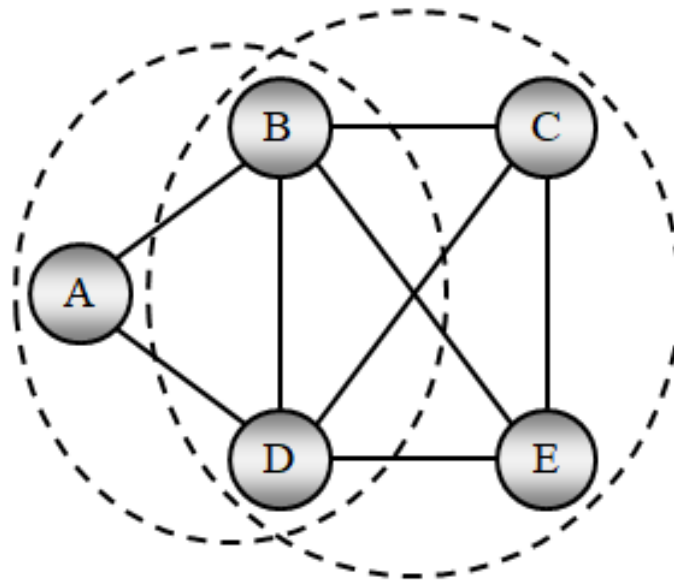


# Even More Network Algorithms



# Agenda

- Network Cloning
- Cliques
- Community Detection
- Eulerian Paths and Cycles
- Summary
- Exercises

# Network Cloning

- Dictionaries
- Clone References

# Cliques

- Brute Force
- Bron–Kerbosch

# Cliques

- Finding Triangles
  - Brute Force
  - Local Links
  - Chiba and Nishizeki

# Community Detection

- Maximal Cliques
- Girvan–Newman
- Clique Percolation

# Eulerian Paths and Cycles

- Brute Force
- Fleury's Algorithm
- Hierholzer's Algorithm

# Summary

- Network Cloning
- Cliques
- Community Detection
- Eulerian Paths and Cycles



# Exercises

- Chapter 14 Exercises 17, 18, 20 – 27.
- Bonus: Chapter 14 Exercise 19.
- Read *Essential Algorithms, 2e* Chapter 15 pages 493 – 518. (All of Chapter 15.)