

# Deadlock Solutions

# Deadlock

- Explain what is meant by deadlock
  - A thread is deadlocked when it cannot run
- Give an example of how deadlock can occur
  - Thread A acquires a lock on mutex 1 and waits for a lock on mutex 2
  - Thread B acquires a lock on mutex 2 and waits for a lock on mutex 1
- Suggest a way to avoid deadlock
  - Always acquire locks in the same order

# Deadlock

- Write a program which causes two threads to deadlock
- Implement your solution
- Verify that the program is no longer affected by deadlock