

Deadlock Exercises

Deadlock

- Explain what is meant by deadlock
- Give an example of how deadlock can occur
- Suggest two ways to avoid deadlock

Deadlock

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

Deadlock avoidance (contd)

- In the following code, why are the `unique_lock` objects needed when the mutexes are already locked?

```
lock(mutex1, mutex2);  
unique_lock<mutex> lk1(mutex1, std::adopt_lock);  
unique_lock<mutex> lk2(mutex2, std::adopt_lock);
```

- Rewrite the solution to use `unique_lock` objects with the `defer_lock` option