

## Homework 1

### Problem 1.1

**Solution:**

```
detective_enter()  
    mutex.down  
    if client_count > 0:  
        for (i:clients_count)  
            clients.up  
    else:  
        detective_count++  
        mutex.up  
        detective.down  
detective_count--  
leave()  
mutex.up
```

```
client_enter()  
    if detective_count > 0  
        mutex.up  
        detective.up  
    else:  
        client_count++  
        client.down  
leave()
```

### Problem 1.2

**Solution:**

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