

Classical Synchronization II

CS 241

Oct. 21, 2013

```
void read() {
```

```
/* Read from the file */
```

```
}
```

```
void writer() {
```

```
/* Write to the file */
```

```
}
```

```
void read() {
```

```
/* Read from the file */
```

```
}
```

```
void writer() {
```

```
/* Write to the file */
```

```
}
```

```
void read() {
```

```
/* Read from the file */
```

```
}
```

```
void writer() {
```

```
/* Write to the file */
```

```
}
```

Readers-Writers Solutions

- Solution #1:
- Solution #2:
- Solution #3:

Sleeping Barber Problem

- Consider a barber shop where:
 - One barber and one barber's chair
 - Fixed sized waiting room
- As a customer arrives, s/he checks if the barber is sleeping or working.
 - If the barber is sleeping, wake the barber.
 - If the barber is working, sit in the waiting room if there's room (if the waiting room is full, just leave)
- The barber is either working or sleeping.
 - When the barber finishes a customer, s/he checks the waiting room for the next customer.
 - If the waiting room is empty, the barber sleeps.

```
void barber() {  
    while (1) {
```

```
        /* Cutting hair */
```

```
    }
```

```
}
```

```
void customer() {
```

```
        /* Hair being cut */
```

```
}
```

Lessons Learned