



LEVEL UP

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Communication Diagram - Numbering

```
totalFines = getFinesDue(userID)
```



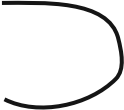
:LibrarySystem

lu:LibraryUser









1. `lv = getuser(userID)`



```
2. totalFines =  
getFinesDue()
```


2.1 totalFines = getFinesDue()









:checkOuts



media: List

2.1.1 * **nn** = *questi*



Im :LibraryMedia



2.1.2* fine ==

getFineDue(dueDate)



```
:LendingPolicy  
{ abstract }
```



2.1.2.1* fine ==
getFineDue(dueDate)





LibrarySystem

```
getFinesDue (userID) {  
    1. lu = getUser(userID)  
    2. return (lu.getFinesDue()) }
```

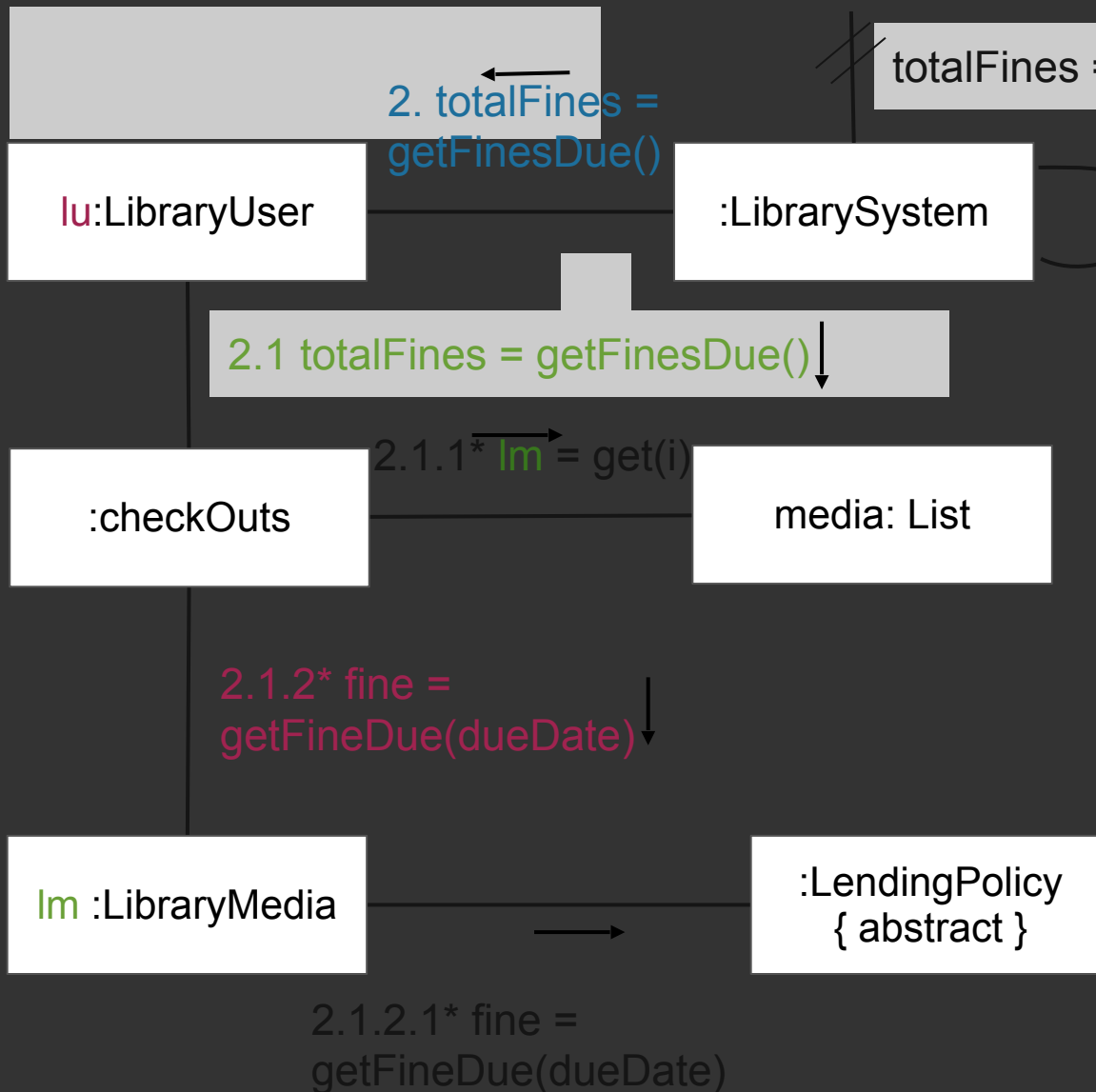
LibraryUser

```
(2.)  getFinesDue () {  
      Checkouts co  
      2.1 return co.getFinesDue () }
```

Checkouts

```
(2.1) getFinesDue() {  
    double f = 0;  
    for each lm in media  
        2.1.2 f+= lm.getFineDue(dueDate);  
    return f;  
}
```

Communication Diagram - Numbering



```

LibrarySystem
getFinesDue(userID) {
    1. lu = getUser(userID)
    2. return(lu.getFinesDue())
}
    
```

```

LibraryUser
(2.) getFinesDue() {
    Checkouts co
    2.1 return co.getFinesDue()
}
    
```

```

Checkouts
(2.1) getFinesDue() {
    double f = 0;
    for each lm in media
        2.1.2 f += lm.getFineDue(dueDate);
    return f;
}
    
```

Remember...

- We model to have a conversation.
- We model to learn.
- All models are wrong, and that's ok.
- Never model alone.