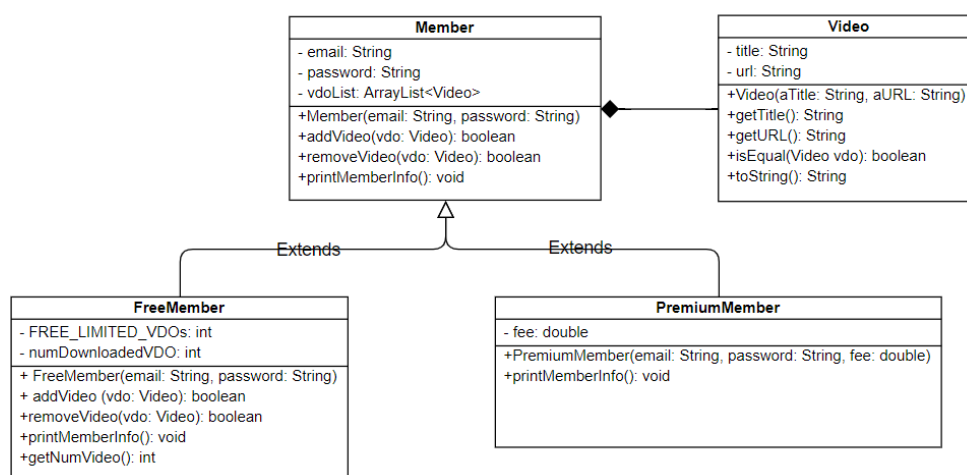


ITCS 209 Object Oriented Programming	Name:	Lab	Challenge Bonus	Peer Bonus
	ID:			
	Sec:			

Lab06: Inheritance

> **MUTube** is a video sharing platform where users can watch, like, share, comment and upload their own videos. In this lab, you will implement a program to manage MUTube's member accounts. Suppose that MUTube offer two types of member: Free and Premium member. **Free members** can download video up to 3 videos in the list. **Premium members** can watch video uninterrupted by ads (ad-free) and can download unlimited videos. However, Premium members have to pay a monthly membership fee.

The `Video` class and the `MemberTester` class are already provided. Please create three classes (`Member`, `FreeMember`, and `PremiumMember`) to practice your skills on inheritance concepts.



Member Class

`addVideo (Video vdo)`: If the `vdo` is not null, this method adds that `vdo` into the `vdoList` and returns true. If `vdo` is null, return false.

`removeVideo(Video vdo)`: If the `vdo` is found in the `vdoList`, removes it from the list, prints a successful message, and returns true. If the `vdo` is not found in the `vdoList`, returns false.

`printMemberInfo()`: Print information including email, password, and list of videos

(Please see the expected output for the exact format)

FreeMember class (This class extends Member class)

`FREE_LIMITED_VDOs` is a maximum videos that free member can download (the value = 3)

Overriding the following methods:

`addVideo (Video vdo)`: If the number of videos in the `vdoList` is reaching the limit, prints a warning message and return false. Otherwise, adds the `vdo` and returns true.

`removeVideo(Video vdo)`: If the `vdo` is found in the `vdoList`, removes it from the list, decreases the number of videos, and returns true.

`printMemberInfo()`: Prints a message "---- FREE MEMBER ----" and general member information.

Add subclass method `getNumVideo()`: Returns number of downloaded videos.

PremiumMember class (This class extends Member class)

Overloading: the constructor method to receive a required parameter (fee)

Overriding: `printMemberInfo()`: Prints a message "---- PREMIUM MEMBER ----" and general information.

Expected output

```
Task 1: Adding new video into free member account
Title: [ICT Training]: How to start JAVA Lessons:4
URL: http://www.mutube.com?url=e5b6a344-27ee-4a26-aea3-bb5969984124
cannot be downloaded because the number of video is reaching the limit.
Title: [ICT Training]: How to start JAVA Lessons:5
URL: http://www.mutube.com?url=c5594f81-f935-4549-967f-df80163f0cc9
cannot be downloaded because the number of video is reaching the limit.
*****
Task 2: Remove/add a video from free account
Title: [ICT Training]: How to start JAVA Lessons:2
URL: http://www.mutube.com?url=65c984d1-f6bc-4a0b-8193-1d1d4dbf69de
is successfully removed.
*****
Task 3: Display free member information
---- FREE MEMBER ----
Email: dooMaidoo@mu.edu (pwd: 1234)
List of Videos
[1] Title: [ICT Training]: How to start JAVA Lessons:1
URL: http://www.mutube.com?url=853e88da-2949-4295-84b2-9b0e4c552fc2
[2] Title: [ICT Training]: How to start JAVA Lessons:3
URL: http://www.mutube.com?url=6b978d49-ba8a-4bbb-8d53-d63653eddcf3
[3] Title: [ICT Training]: How to start JAVA Lessons:4
URL: http://www.mutube.com?url=e5b6a344-27ee-4a26-aea3-bb5969984124
-----
*****
Task 4: Add/remove new videos into premium member account
Title: [ICT Training]: How to start JAVA Lessons:3
URL: http://www.mutube.com?url=6b978d49-ba8a-4bbb-8d53-d63653eddcf3
is successfully removed.
*****
Task 5: Display premium member information
---- Premium MEMBER ----
Member fee: 399.0
Email: likeGods@mu.edu (pwd: 9876)
List of Videos
[1] Title: [ICT Training]: How to start JAVA Lessons:1
URL: http://www.mutube.com?url=853e88da-2949-4295-84b2-9b0e4c552fc2
[2] Title: [ICT Training]: How to start JAVA Lessons:2
URL: http://www.mutube.com?url=65c984d1-f6bc-4a0b-8193-1d1d4dbf69de
[3] Title: [ICT Training]: How to start JAVA Lessons:4
URL: http://www.mutube.com?url=e5b6a344-27ee-4a26-aea3-bb5969984124
[4] Title: [ICT Training]: How to start JAVA Lessons:5
URL: http://www.mutube.com?url=c5594f81-f935-4549-967f-df80163f0cc9
-----
```

Peer Bonus (Optional):

Sticker
Here

Sticker
Here

Sticker
Here

Challenge Bonus (Optional): Modify PremiumMember class

Suppose each premium member can select option to share primum account with at most 2 persons (Family FEE).

- Add a staic filed Family_FEE = 80.00
- Add addFamily(String username): If the username is not empty, adds it to the list, prints the successful message and returns true. Otherwise, returns false.
- Add removeFamily(String username): If the username is found, removes it from the list and returns true. Otherwise, prints a warning message and returns false.
- Add getMothlyBill(): The monthly bill includes the premium member fee and family fee. The member has to pay 80.00 per month per family.
- Override printMemberInfo(): to prints premium member information and list of family.

PremiumMember
- fee: double - Family_FEE: double - family: ArrayList<String>
+PremiumMember(email: String, password: String, fee: double) +printMemberInfo(): void +addFamily(String username): boolean +removeFamily(String username): boolean +getMonthlyBill(): double

Expected output

Challenge 1: Add/Remove Family members alan@turing is added successfully. bill@gates is added successfully. user: steve@job cannot be added, the Family user is reached the limit bill@gates is removed successfully. user: bill@gates does not exists and cannot be removed. ***** Challenge 2: Get monthly bill of premium member account The monthly bill: 479.0 ***** Challenge 3: Display premium member info ---- Premium MEMBER ---- Member fee: 399.0 Email: likeGods@mu.edu (pwd: 9876)	List of Videos [1] Title: [ICT Training]: How to start JAVA Lessons:1 URL: http://www.mutube.com?url=db7a26f4-12ff-4aab-a958-f3aba3bf8511 [2] Title: [ICT Training]: How to start JAVA Lessons:2 URL: http://www.mutube.com?url=2e17e3ac-cb43-4ab4-9c59-4d2e6f20e450 [3] Title: [ICT Training]: How to start JAVA Lessons:4 URL: http://www.mutube.com?url=1ba71eab-faac-4c11-b09e-ccc86b4ba935 [4] Title: [ICT Training]: How to start JAVA Lessons:5 URL: http://www.mutube.com?url=89e4b6bb-8fd1-4d25-b6ec-ef1c21411086 ----- List of Family alan@turing, *****
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