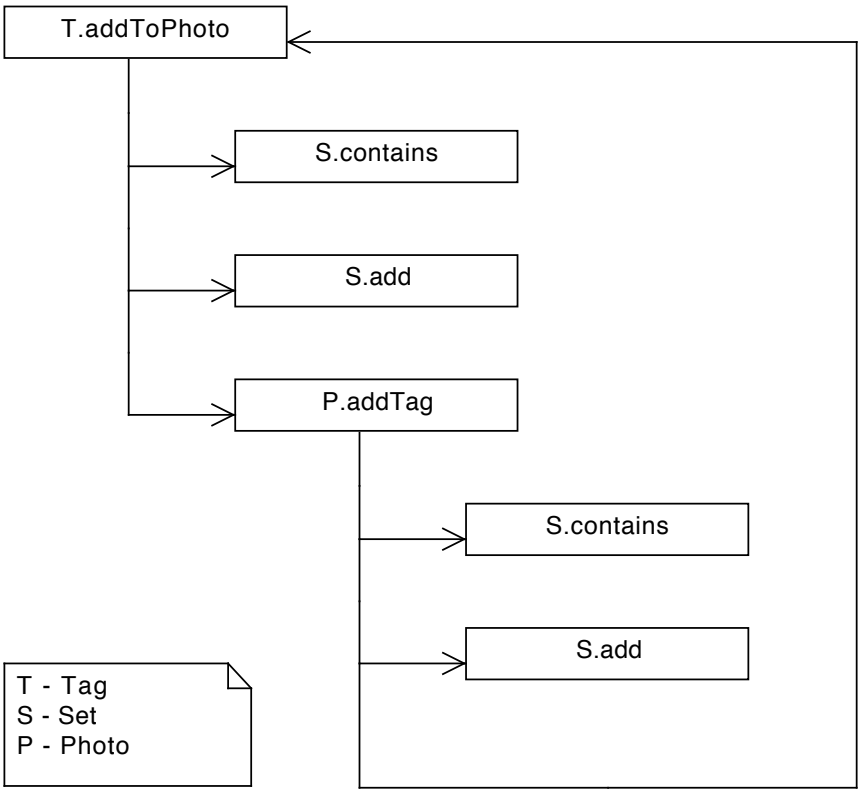
Control & Data Models
Lecture / Lab
Solutions

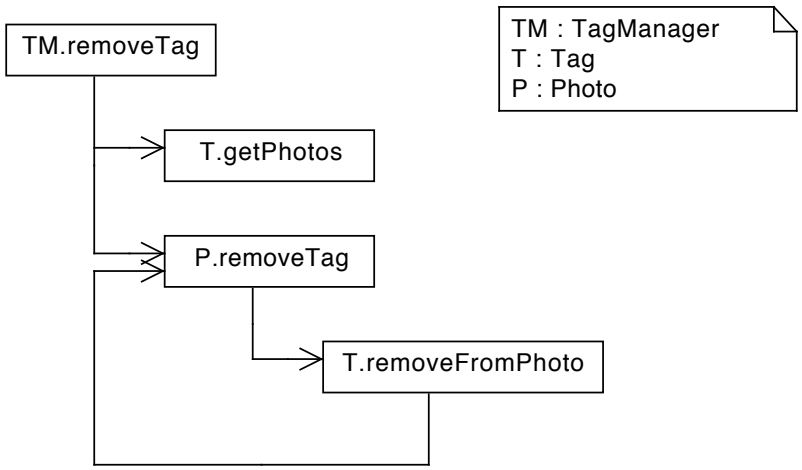
When you read the solution, make sure you have the code available and take time to make the connection between the models presented here and the code itself.

Question 4c is very challenging and it might take some time to understand the solution – be sure to make use of DLC or instructor office hours, if you need some help.

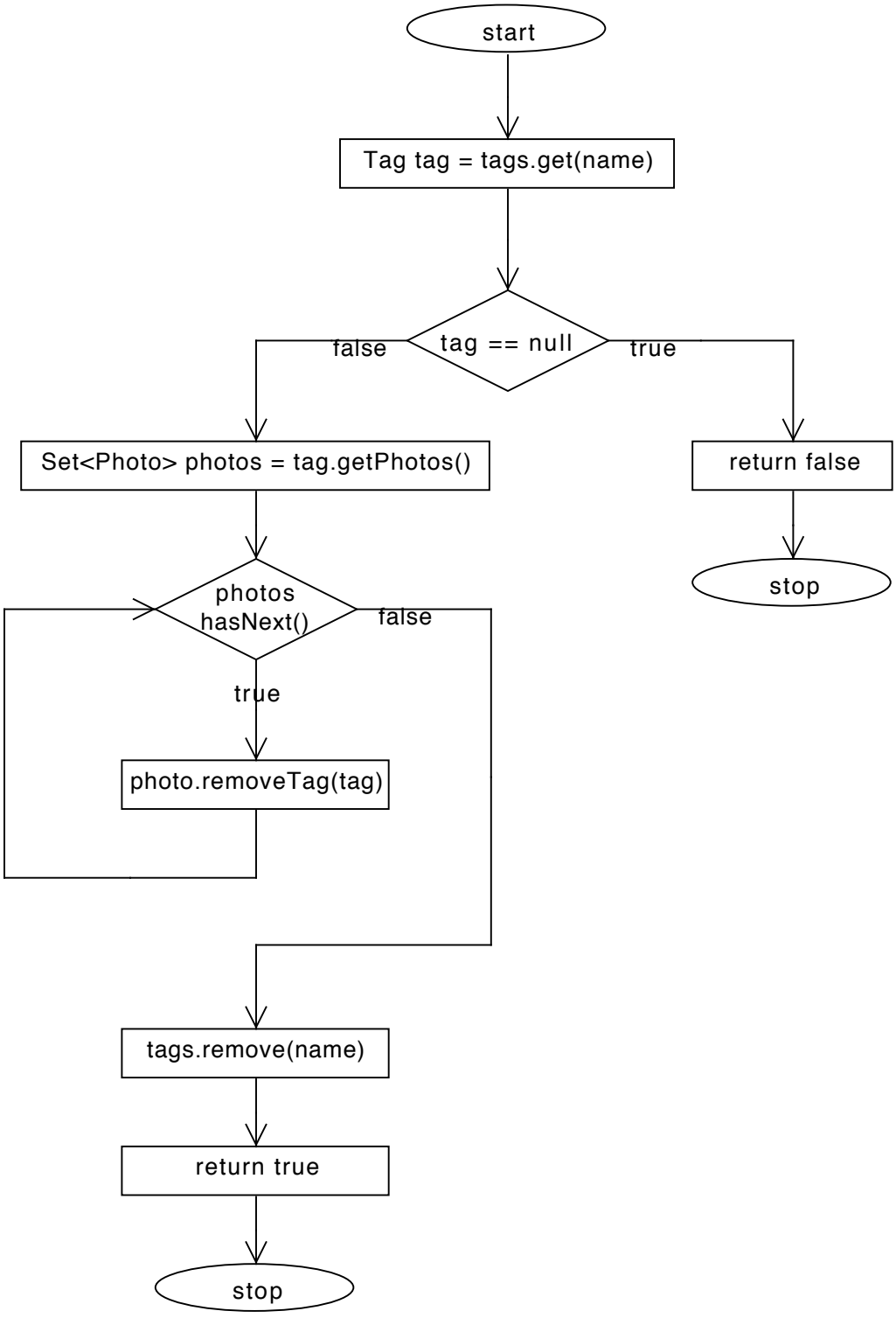
Q1.



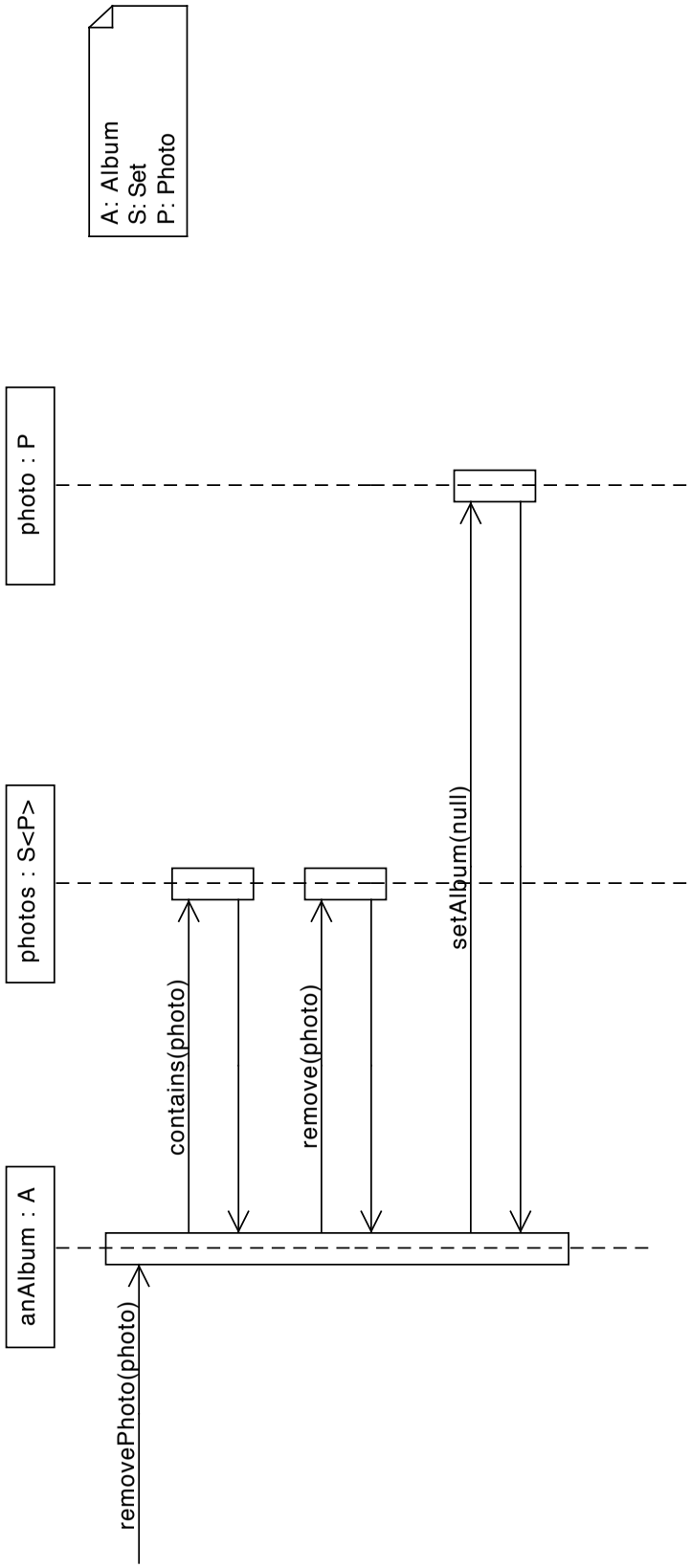
Q2.


TM.removeTag
T.getPhotos
P.removeTag
T.removeFromPhoto
TM : TagManager
T : Tag
P : Photo

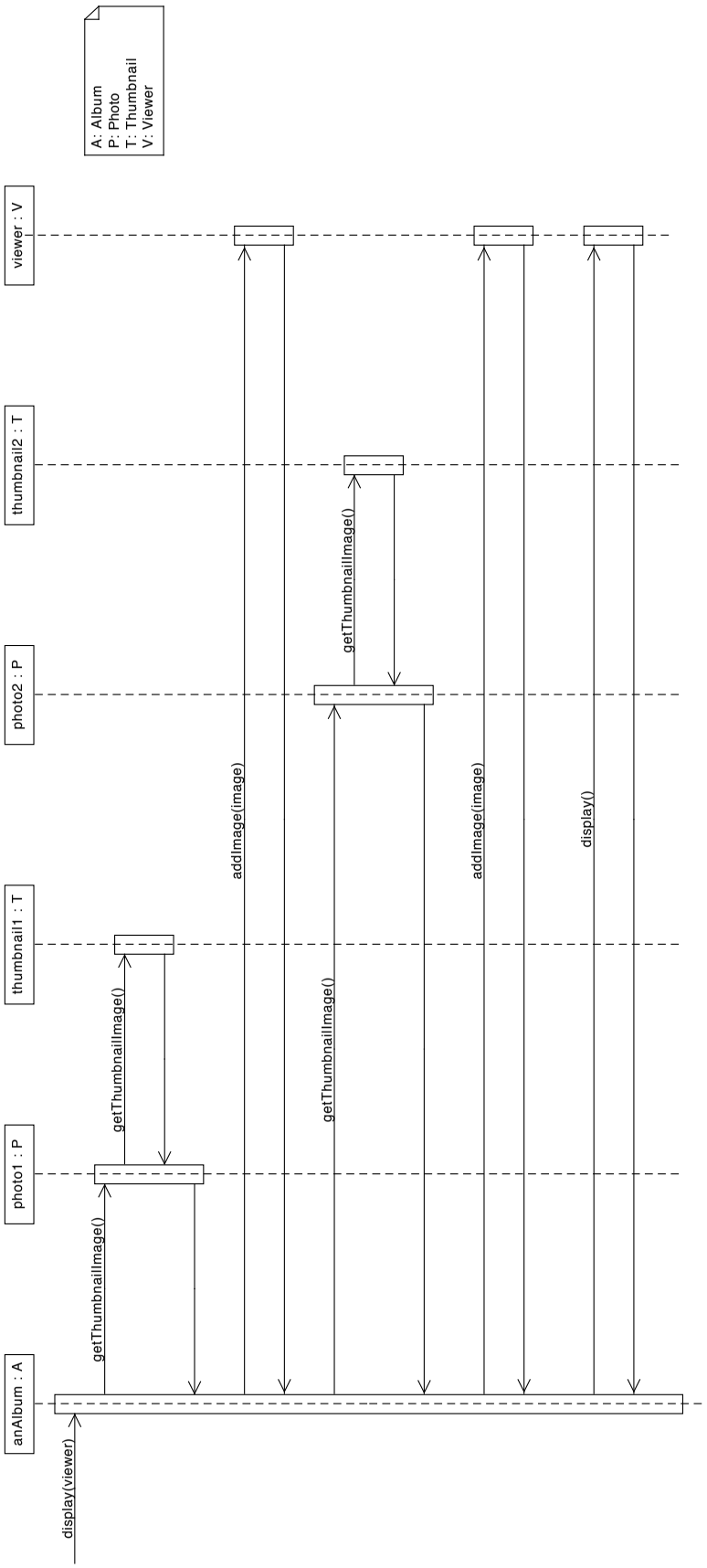
Q3.


start
Tag tag = tags.get(name)
tag == null
false
true
Set<Photo> photos = tag.getPhotos()
return false
stop
photos
hasNext()
false
true
photo.removeTag(tag)
tags.remove(name)
return true
stop

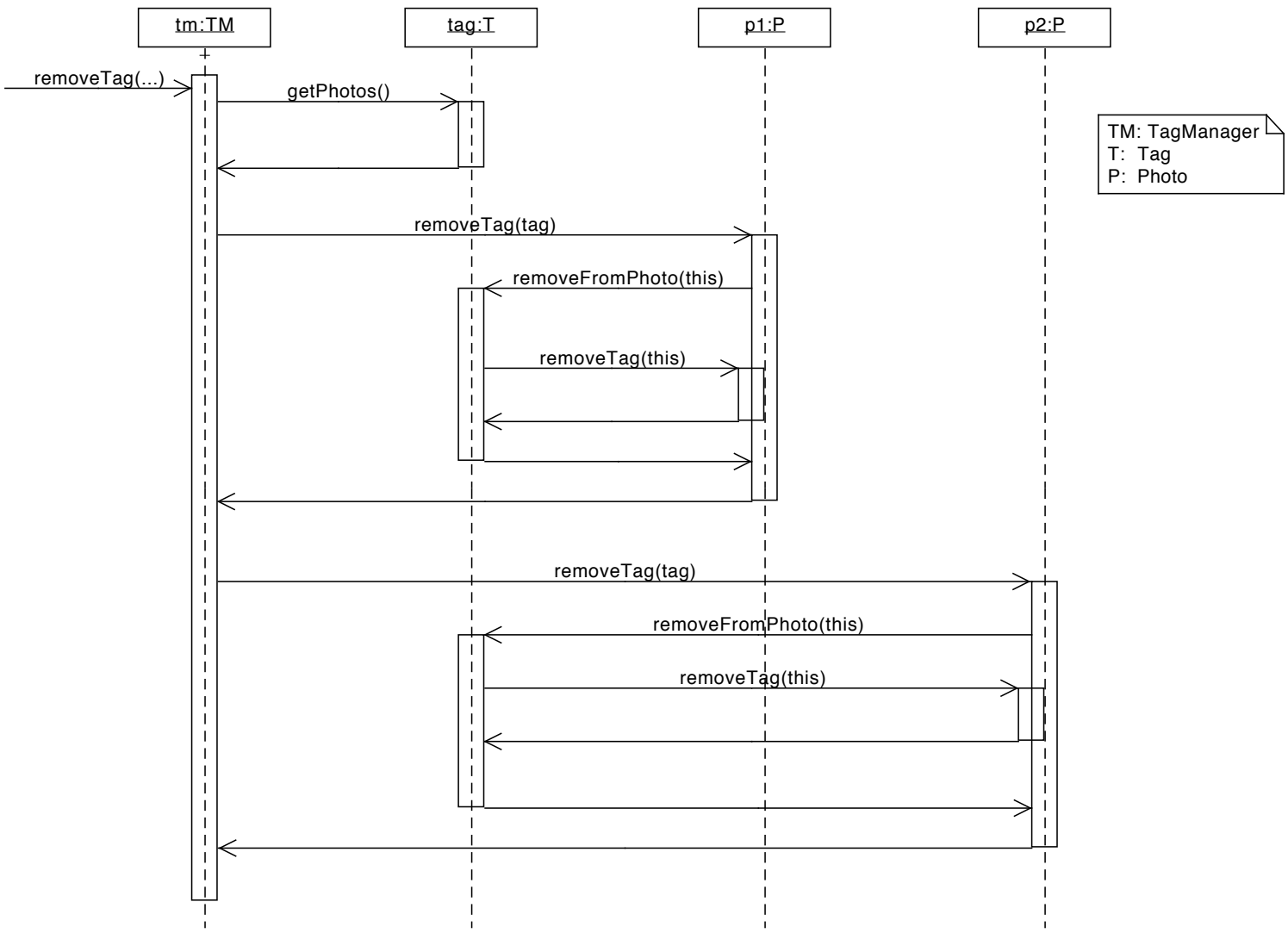
Q4a.


A: Album
S: Set
P: Photo
photo : P
photos : S<P>
anAlbum : A
removePhoto(photo)
contains(photo)
remove(photo)
setAlbum(null)

Q4b.


A: Album
P: Photo
T: Thumbnail
V: Viewer
viewer : V
thumbnail2 : T
photo2 : P
thumbnail1 : T
photo1 : P
anAlbum : A
display(viewer)
getThumbnailImage()
getThumbnailImage()
addImage(image)
getThumbnailImage()
getThumbnailImage()
addImage(image)
display()

Q4c.


tm:TM
tag:T
p1:P
p2:P
removeTag(...)
getPhotos()
TM: TagManager
T: Tag
P: Photo
removeTag(tag)
removeFromPhoto(this)
removeTag(this)
removeTag(tag)
removeFromPhoto(this)
removeTag(this)