

# Reflection 3: Sequence Diagrams

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- Due Monday by 11:59pm
- Points 5
- Submitting a file upload

## Reflection 3 - Sequence Diagrams

Here, we will be constructing some sequence diagrams, and then reflecting on the process and issues you encountered.

Please complete the following scenarios on your own. You can use scratch paper or do it digitally. You do not need to submit your diagrams or specifications. Remember, with these there is not a specific answer so don't get discouraged if you feel stuck, just try your best and write about your issues in the reflection.

Once you have done all of these scenarios, please read and complete the reflection questions at the end of this document. You will then submit that reflection on Canvas as your assignment.

### Scenario 1:

"This is an online banking system. The user can view their balance, deposit checks, and move money between their accounts. They can also make direct payments to 3rd party billing services. For security purposes, we need to have them put in their username and password, as well as a pin number, and then finally perform two factor authentication. They get two tries on all of these before they get locked out. When they make a payment to a third party billing service, we have to ask the user to confirm before proceeding."

Create a sequence diagram for the above scenario.

### Scenario 2:

"This is a security camera system for automatically detecting suspicious activity after hours. When a camera detects movement, it will grab a still image from the feed. This is then run against a facial

detection system. If a face is detected, we then send that image to a system that checks the face against all employees. If it is a known employee, then the system will make a log entry if they haven't been detected within the last hour, but the system takes no other action. If the face is unknown, it always makes a log entry, but then notifies the security desk system if the security desk hasn't been notified about this camera in more than five minutes."

Create a sequence diagram for this scenario.

## Scenario 3:

"This is a class management system for a university. Admins can add professors and students to the system. Students can register for courses in the system. If there is a conflict, the advisors will have to approve the request. Students can submit assignments for the professor to grade. Students can also file a grade appeal with a professor. The professor can then approve or deny the request and the gradebook is updated if need be. The professor can also post grades to the system, and obtain a report of all current grades in the class."

Create a sequence diagram for this scenario.

## Reflection Assignment

Please answer the following questions. For each question, be sure to provide a full and well thought out explanation of your process. Your goal here is to spend some time reflecting on the activity you just completed, not just providing quick answers to the questions.

1. In Scenario 1, was there any information that was provided that you found was not actually helpful to the diagram and why was it not helpful?
2. In Scenario 2, did you have any difficulty with the time intervals and how to find them into the diagram?
3. In Scenario 3, did you have any difficulty separating which systems were responsible for which tasks?
4. Overall, how do you feel sequence diagrams compare to activity diagrams and what are some benefits of each?