Homework 2
UML

This is great practice for the quiz and the project. Feel free to discuss on the discussion board.

Problem Statement

You were hired as the consultant to come in and help the *Little Explorer of Boulder* reorganize and automate their process. The *Little Explorer of Boulder* is a fictitious non-profit that organizes adventures for kids under the age of 16.

The Marketing Department is frustrated because they get tons of photos from the parents but they get dumped onto several different external hard drives and there are no tags to be able to search for good photos to use in their newsletters and on the website. The other problem they have is that in order to use a photo of a child, they need to first get the parent to sign a release to be able to use a photo of their child, and another release form for the person who took the photo to be able to use their photo for free.

Currently, they need to go to the "Records" office to see if they have the release forms for a given photo. The Records office people then check a paper file system which match the filename of the photo to the ID of a folder with information about that photo, and whether both release forms are in the folder. Then they let the marketing person know the results. Sometimes the Records office has the contact information of the parent for the child in the photo and the contact information for the person who took the photo, and they will contact them to get the release forms. If they can get the release forms, then they let the marketing department know once both forms are complete and the photo is available to use.

The *Little Explorer of Boulder* wants a centralized repository of photos with tags associated with each photo (e.g., date, 'outdoors'/'indoors', 'tournament', 'fishing'/'canoeing'/'camping'/etc.). They also do not want to sift through photos they cannot use that don't have the appropriate release forms submitted. Currently they must go through the Marketing department to get any photos, as the Marketing Department will ensure that only photos that are of high quality (both photograph quality and content in the photo) are used.

All photos used on the website must sit on the website server and be an appropriate size for viewing on the web. The website department worries there will end up being lots of duplicate photos because of their needs.

The Marketing Department and the Website Department are both eager to have this functionality. However, everyone in both of these departments are already working overtime every week and do not have 'spare time' to sit around and tag the photos.

1. Create the following diagrams for the problem specified above. Please use a tool to draw the diagrams (E.g., www.lucidchart.com is free, any tool works)

    a. Activity Diagram – Current State

    b. Activity Diagram – Future State

    c. Use Case Diagram

    d. Use Case Document

    e. Sequence Diagram

    f. State Machine Diagram

2. Discuss which diagrams would be most helpful, what they are helpful for in this particular scenario, and why the diagram is helpful. Also discuss if a diagram didn't seem appropriate for the problem and why (or why all the diagrams are useful). *Note: there is no 'right answer' necessarily, as it will depend on your understanding of the problem statement and what you believe are the important aspects of the problem.*

3. Briefly, what is your "sales pitch" to convince them to move to your suggestion of a "Future State"? How are you going to handle the fact that they are "too busy" to tag the photos – who/how are the photos going to get tagged (or what solution are you proposing)?

You do not have to do a diagram for every single use case. You do, however, have to do at least one of each diagram and use case document for the sake of practice and learning how they may or may not apply. How many diagrams should you do for each diagram type? As many as you need to do to feel comfortable with understanding what they are and how they work.

Clarification from the Client
If you feel you want clarification from the client, you can ask questions to Liz who can represent either the Marketing Department or the Website Department. The Records office people, unfortunately, are unavailable.

Of course, if you have questions about the assignment or the diagrams or how to do things, you may ask as well!