ECE 325 LAB Assignment 4: Playing your band's first gig/show!

(20 pts total) Great news: you just signed a deal for your band's first show! It is not in an ideal location, as it will be in a zoo, but you figure it is better than nothing. There is one special condition though: since the zoo is paying you for the show, you need to help with feeding the animals. This means that while you are playing, animals will randomly come up to the stage to ask for food. You, the artist, should feed them. There are a few requirements:

- The zoo manager told you it is time to start the show once the first animal is getting hungry (= comes up to you asking for food).
- These special animals get indigestion when they are fed without background music. So, you can only feed them after you started playing. If they come to you before you started playing, make sure to raise a NotPlayingException and start playing as soon as possible.
- Every animal can only be fed once per day. Raise an AlreadyFedException when an animal comes to you who has already been fed today. Note that the animals are more than happy to be fed more than once a day... so they should probably not be expected to raise this exception themselves.
- The zoo manager wants to keep track of which animals try to get fed more than once. This should be done by printing "animal-name was already fed today!" to System.err.
- Once you started playing, you cannot stop until all animals have been fed.
- As an artist, you tend to get distracted easily. So even if you're being told to start playing, there is a 50% chance you actually do.

Finish the provided classes as indicated. For each exception, explain in the comments in your class whether this should be a checked or unchecked exception and why. Make sure to handle each exception correctly. Print out proper messages when animals get fed, artist start/stop playing, etc.

Please submit:
1) A zip file containing your code and a PDF with the answers to the questions above.
Name the file 'FirstName_ID_lab_asg4.zip' and keep the exact same file structure as the zip that was provided for the assignment. For example,
Filename: Cor-Paul_1234567_lab_asg4.zip
```
|------- src
|       |------- ece325_lab_assignment4
|       |       |------- *.java
```

2) A screencast/movie that shows the following steps:
- Open your eClass with your name shown
- Open your IDE
- Show your code briefly
- Execute your code and show the results of the execution (from the start to the end of the ZooShow).

Please do not modify any of the names/methods we've defined in the provided *.java files, unless explicitly mentioned that you are allowed to do so.