

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.