Fall 2026 COP 3330 Program #5: Inheritance and Tickets

The goal of this assignment is to explore the nuances of inheritance and to exercise your creativity skills. Instead of specifying what the assignment should do, you will be given some existing code that uses inheritance and be asked to add to it.

Assignment Requirements

You are already provided with versions of the following classes:

```
Date
Money
BaseTicket
Ticket extends BaseTicket
VIPTicket extends Ticket
```

You may modify these classes as you see fit, but generally the goal is for you to add methods to these classes instead of changing the methods that already exist in them. (If you need to for one reason or another to get your other code to work, then modify as necessary.)

There's nothing to execute in these files, but the groundwork for different types of tickets is created.

Your job is to add a new class called TicketApplication (at a bare minimum) that has a main method that can be run. Specifically, when running your application, the user must be able to see the effects of

(a) Inheritance
(b) Polymorphism via toString
(c) Polymorphism via a new method you create
(d) Selective functionality where you use the instanceof operator

For full credit, you must add a class that inherits from either Ticket or VIPTicket and incorporate that into your program.

Deliverables

Please submit a single .zip file. Your file should be a zip of a single directory called P5 which contains, at a minimum, the following .java files:

1) Date.java
2) Money.java
3) BaseTicket.java
4) Ticket.java
5) VIPTicket.java
6) TicketApplication.java

If you only submit these files your maximum grade will be 27 out of 30. To have an opportunity to get full credit, you'll have to create a new class that inherits from Ticket or VIPTicket and incorporate it into your application.

In addition, in the same directory, create a file called README.txt/README.docx/README.pdf which has a brief explanation of how to run your application and how the TA can easily test that you've implemented the required features.