

Name: _____ Section: _____ Date: _____

Instructions: Use this sheet as scratch and submit it to the instructor when you are done.

Lab Exercise 3 – Constructors

Modern movie theaters are equipped with computer-based ticketing systems. The customer chooses a movie and a seat number, and the system prints out the movie ticket with the corresponding price. For this lab exercise, you will create a program that simulates a ticket vending machine of a movie theater.

1. Open up BlueJ and create two classes: *Ticket* and *Cinema*.
2. The *Ticket* class should keep track of three attributes – the **name of the movie**, **price of the ticket**, and **seat number**. The following are its constructors and methods:

- `public Ticket(String movieName, double ticketPrice, String seatNumber)`
- `public Ticket(String movieName, String seatNumber)
// constant default ticket price is P120.00`
- `public String getName()`
- `public double getPrice()`
- `public String getSeat()`
- `public String details() // see #4`

3. The *Cinema* class dispenses tickets based on the movie shown in that movie theater. It can dispense a regular ticket or a premium ticket (advanced booking). It should also keep track of the number of tickets sold, and the total sales for that movie. The attributes are:

1. Name of the movie assigned to the cinema
2. The price for a premium ticket
3. The number of tickets sold
4. The total sales for that movie

This class has the following constructors and methods:

- `public Cinema(String movieName, double premiumPrice)`
- `public Cinema(String movieName)
// constant default premium price is P130.00`
- `public Ticket printRegular(String seatNum)`
- `public Ticket printPremium(String seatNum)`
- `public void printSummary() // see #5`

4. When the *details* method is called, a String is returned containing the details on the ticket. Follow this format – *'[movie name] (P[ticket price]) - seat [number]*. For example:

```
'Transformers' (P120.00) - seat A1
```

5. When the *printSummary* method is called, a report about the cinema. For example:

```
Movie: Transformers  
Tickets sold: 3  
Total sales: P240.00
```

All peso amounts should be prefixed with a 'P' and should be accurate to exactly 2 decimal places. To test your program, use the provided Driver.java and compare it to the expected output.

Archive your BlueJ project directory and name it as *[Surname]-[ID Number].zip* and submit it through Moodle, or as prescribed by your instructor.