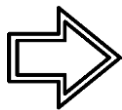# Assignment

# Overview

A hotel company needs help tracking how many days customers will stay and what there overall cost will be. You are to create a Reservation class that holds this data, calculate the days staying and costs.

# Directions

## To Get Started:

1. Create a new java project in IntelliJ(or your preferred IDE) called YOUR_MCC_Name-Assignment8.

2. Create two java files in your 'src' folder.  Reservation.java and ReservationSystem.java. All your code will go in these two files.

## Part 1: Reservation Class

Reservation.java defines a reservation at the hotel. This class should contain instance variables for the arrival date and departure date. It should also contain a constant initialized to the nightly rate of $145.00.

The class should also include the following methods:

```
public LocalDate getArrivalDate()
public String getArrivalDateFormatted()
public setArrivalDate(LocalDate arrivalDate)
public LocalDate getDepartureDate()
public String getDepartureDateFormatted()
public setDepartureDate(LocalDate departureDate)
public int getNumberOfNights()
public String getPricePerNightFormatted()
public double getTotalPrice()
public String getTotalPriceFormatted()
```

Note the return type and the name of the method for what they are doing.  For the date formatting you should use the FULL enum from the FormatStyle. We want to see the day along with the date. (see the example output).

# Part 2 Reservation System file:

You are to create this from scratch. It should loop so that the user can check multiple date ranges. The program should ask for the arrival and departure date of the hotel reservation. The dates should only be accepted in the MM/DD/YYYY format. That means you should take in the date, split it with the "/" and then check if the date was entered correctly. If not then display an error message to ask for the date again.

How do you know that the dates are valid?  Check the length after you split the string. First off the array of the date should have a length of 3. Secondly check the length of the String in each index 0, 1, and 2. String lengths of 0 and 1 should not be greater than 2 and the length of index 2 should be 4.

Secondly, we want to make sure the date of the departure is after the date of arrival. You can handle this however you want, some ideas:

- Have them re-enter the departure date (as need in the example output)
- Automatically switch the arrival and departure date - Maybe they just entered in the wrong order?
- Ask for both a new arrival and departure date. - Maybe they messed up entirely?

If you see the example output I check a bunch of different cases.

## Example Output(user input bolded):

```
**Reservation Calculator**

Enter arrival date:(mm/dd/yyyy): 2023/02/21
Error, date entered incorrectly.
Enter arrival date:(mm/dd/yyyy): 02/2023/21
Error, date entered incorrectly.
Enter arrival date:(mm/dd/yyyy): 02/21/23
Error, date entered incorrectly.
Enter arrival date:(mm/dd/yyyy): 02/21/23
Error, date entered incorrectly.
Enter arrival date:(mm/dd/yyyy): 02/21/2023

Enter departure date:(mm/dd/yyyy): 2023/02/25
Error, date entered incorrectly.
Enter departure date:(mm/dd/yyyy): 02/25
Error, date entered incorrectly.
Enter departure date:(mm/dd/yyyy): 02/25/2023

Arrival Date: Tuesday, February 21, 2023
Departure Date: Saturday, February 25, 2023
Price: $145.00 per night.
Total Price: $580.00 for 4 night(s).
Continue? (y/n): y

**Reservation Calculator**

Enter arrival date:(mm/dd/yyyy): 02/25/2023
Enter departure date:(mm/dd/yyyy): 02/21/2023
Error, departure is before arrival.
Enter departure date:(mm/dd/yyyy): 02/26/2023

Arrival Date: Saturday, February 25, 2023
Departure Date: Sunday, February 26, 2023
Price: $145.00 per night.
Total Price: $145.00 for 1 night(s).
Continue? (y/n): n

**Reservation System Exit**
```

# Submission

1. Compress the IntelliJ project folder and submit it to this assignment.

   to compress:  On Windows, right click -> send to -> compressed .zip file

   On Mac,  right-click -> Compress

*Hints/Tips (Before Submitting):*

- *The best solution would be to use condition based checking values BUT you can use exceptions and introduce try/catches.*
- *Don't forget to have a header at the top of your file and include a **Resource statement**.*
- *Use comments throughout for full points.*
- *Follow all Java Styling Guides as covered*