AP Computer Science
30 pts

Weekly Project

Weekly Project 2
CarRental

Background:

When you rent a car from an agency, the key ring has several pieces of information: license plate, make and year of car, and usually a special code. This code could be used for some data processing within the company's computers. This lab will practice determining that special car rental code from the license plate.

Assignment:

1. The following sequence of steps will be used to convert a sample license plate into a car rental code.

   a. A license plate consists of 3 letters followed by a space, followed by a 3-digit integer. For example, CPR 607.

   b. Add up the ASCII values of the 3 letters, `67 + 80 + 82 = 229`.

   c. Add the sum of the letters to the 3-digit integer. For example, `229 + 607 = 836`.

   d. Take this sum (`836`) and determine the integer remainder after dividing by `26`:
   `836 % 26 = 4`.

   e. Determine the 4th letter in the alphabet <u>after</u> the letter '`A`': 4th letter after '`A`' = '`E`'

   f. Combine the letter and the sum. Thus, we have `CPR 607 = E836`.

2. You may assume that all sample data will be in the format of 3 alphabet characters, then a space, followed by a 3-digit integer.

Instructions:

1. Use either Scanner or GUI to get input.
2. Prompt and retrieve the make, model, and license plate of the car.
3. Print the run output in this format.

```
Make = Chevrolet
Model = Suburban
CPR 607 = E836
```

4. Test the following sample inputs and have it print the corresponding output:

   Make = Ford, Model = Explorer, Plate = RJK 492 Rental Code = V723
   Make = Aston Martin, Model = Coupe, Plate = SPT 309 Rental Code = K556

Considerations:

What instance variables, methods, and imports do you need for this class? What String methods will be helpful? What ASCII values do you need to know? How do mixed data types interact?

HOW TO SUBMIT: SUBMIT YOUR JAVA CODE ONLINE TO SCHOOLOGY. BE SURE TO INCLUDE YOUR NAME IN COMMENTS. YOU CAN TALK ABOUT IDEAS WITH OTHERS BUT THE CODE MUST BE SOLELY YOURS.