COMS-170: INTRODUCTION TO PROGRAMMING

FINAL PROJECT (TRUCK RENTAL)

OVERVIEW

Compute and display information relating to moving truck rental. For a specified customer, the program will compute and display the amount of money charged for the customer's truck rental.

RENTAL INFORMATION

Classification	Base Daily Charge	Mileage Charge (Daily Rentals)	Base Charge Weekly	Mileage Charge (Weekly Rentals)
A	$15.99	0.44 per mile	$109.99	0.44 per mile after first 175 miles per week
B	$25.99	0.64 per mile	$179.99	0.64 per mile after first 175 miles per week
C	$35.99	0.74 per mile	$239.99	0.74 per mile after first 175 miles per week

Example:

- User wants a Class B truck for 2 days and will drive 150 miles. The cost is $147.98 (daily rate $25.99 for 2 days = $51.98 + 150 miles * 0.64 = $96.00)
- User wants a Class C truck for 2 weeks and will drive 390 total miles. The cost is $509.58 (weekly rate $239.99 * 2 = $479.98 for 2 weeks + (390 - 350 allowed miles) * 0.74 = $29.60)**

  *** NOTE: Weekly rentals include mileage. The example takes total mileage – 200 (allowance) to determine 10 additional miles. Refunds are NOT given for unused miles.*

GOAL

Your application will calculate the rental rate for a customer and display it to screen. From a menu, the user will select truck classification. After truck classification has been selected, display a menu with the rental options of daily or weekly. The program then needs to gather how many days or weeks the user wants to rent the truck and then how many miles will be driven.

PROGRAMMING REQUIREMENTS

Your program must include the following concepts:

- Functions – you must begin your program with main()
- Lists – consider the Classification/Base Charge Daily/Daily Mileage Charge/Base Charge Weekly/Mileage Charge Weekly/Allowed Mileage Weekly as parallel lists or a two-dimensional list.
- Variables – data input/output to the user will most likely be stored in variables
- Loops – after the completion of computing a customer's total, loop to the beginning of the program making it ready for the next customer
- Conditions – you will use if/else statements to compare values
- Menu – your application needs to have a menu of choices (rent truck, exit) with professional formatting
- Exception Handling – input errors should be handled