

# Business Program Challenge: XYZ Auto

## Objective

You have been hired by a car dealership, that is wishing to implement a computer program to make their business operate more efficiently and profitable.

Create a program using your preferred language, to provide the owner with the following information and complete the following tasks. You must also provide a flowchart or psuedo code to demonstrate your planning.

## Criteria

In your program you are expected to include the following menu:

1. Buy Vehicle
2. Sell Vehicle
3. Monthly Paycheck
4. Buy/Sell Report
5. Inventory Report
6. HST Report
7. Monthly Profit Report

## Functionality

When the program starts you must read the initial data from the file dealer\_data.txt which will be provided on your flash drive. Your program must then provide the user with the following options.

### Buy Vehicle (Company's purchase)

User must enter the following fields

- Make
- Model
- Year
- Colour
- Purchase price

### Sell Vehicle (Sale to consumer)

User must enter the following fields

- Sales person
- Model
- Sale price

### Monthly Paycheck

Print to screen, each employee's pay total for the month

- Base salary
- Commissions (see table for details)
- Tax Deductions (see table for details)
- Gross Income per paycheck
- Net Income per paycheck

### Buy/Sell Report

- List of all vehicles purchased monthly
- List of all vehicles sold monthly

### Inventory

- List of currently available inventory

### HST Report (13%)

- Monthly report of HST combined total on all vehicles sold

### Monthly profit report

- Monthly report of combined profit on all vehicles sold after commission payout

Tax Table

Yearly Income	Tax Rate
Less than \$25000	17%
\$25000 - \$35000	25%
Greater than \$35000	35%

Commission Table

Manager	5% of profit from every car sold
Salesperson	15% of profit from the car they sold

## Data

The data is provided in a file, dealer\_data.txt in the following format:  
Employee (E), First Name, Last Name, Position, Base Salary, SIN  
Vehicle (V), Make, Model, Year, Colour, Purchase Price

During testing the following transaction will be made:

Buy Vehicle (2 purchases are made)

Make	Model	Year	Colour	Purchase Price
Toyota	RAV4	2015	Red	\$17000
Kia	Sorento	2011	Black	\$11990

Sell Vehicle (3 sales are made)\*

Salesperson	Model	Sale Price
Patrick Jules	Trans Am	\$25000
Suzie Jones	Camaro	\$35000
Suzie Jone	Civic	\$14500

\* for the purpose of testing we will keep the model field unique.

## Scoring

### **Flowchart/Pseudocode 10%**

Evidence of planning, flowchart or pseudocode

### **Program 50%**

### **Presentation/Demo 10%**

You will present your solution to the car dealership owner, who is not a computer programmer. Demonstrate the functionality and answer any questions they may have.