# QAP 5 – Nov 30 – Dec 7, 2023


- **All Projects will be completed individually in this QAP. There are only 2 projects in this QAP – Python (reports) and JavaScript.**

- **Each project is to be submitted through the appropriate assignment portal by Thursday, Dec 7 at 11:59 pm.**

- **Questions can be asked before any classes during the regularly scheduled times in the next two weeks.**

# Project 1 - Data Files and Reports

The **One Stop Insurance Company** now needs a program(s) to process the data file and create a couple of reports. There is a Defaults file (OSICDef.dat) that you can make use of. It includes the next policy number, the premium for the first car, the discount rate for additional cars, the costs are $130.00 per car for extra liability, $86.00 per car for glass coverage, and $58.00 per car for the loaner car option, the HST rate, and finally the processing fee for monthly payments. The file appears as follows:

2032
869.00
0.25
130.00
86.00
58.00
.15
39.99

The file for customer policies is called Policies.dat and appears as follows – note that some payment options are Monthly, some Full, some Down Pay – second last value in the file. The last value is the amount of the downpayment – it will be 0 if the option is Monthly or Full. I have the first record only here, but there are 10 records in the file.

```
1944, 2023-03-10, John, Smith, 12 Main St., St. John's, NL, A1A8H4, 123-123-1234, 2, Y, N, Y, Full, 0.00
```

Create the two reports below (two separate programs). The first is a detailed report for policy listings.

```
12345678901234567890123456789012345678901234567890123456789012345678901234567890123

ONE STOP INSURANCE COMPANY
POLICY LISTING AS OF dd-Mon-yy

POLICY CUSTOMER                POLICY      INSURANCE      EXTRA       TOTAL
NUMBER NAME                     DATE        PREMIUM       COSTS      PREMIUM
================================================================================
 XXXX  XXXXXXXXXXXXXXXXXXXX   yyyy-mm-dd  $#,###.##  $#,###.##  $#,###.##
                                        :
                                        :
 XXXX  XXXXXXXXXXXXXXXXXXXX   yyyy-mm-dd  $#,###.##  $#,###.##  $#,###.##
================================================================================
Total policies: ###                      $##,###.## $##,###.## $##,###.##
```

Calculate the Insurance premium using a basic rate of $869.00 for the first automobile, with each additional automobile offered at a discount of 25%. Calculate the extra costs as follows: If the user enters a Y for any of the options, the costs are $130.00 per car for extra liability, $86.00 per car for glass coverage, and $58.00 per car for the loaner car option. All these values are added together for the total extra costs. The total premium is the insurance premium plus the total extra costs.

The second report is an exception report. Include only the customers who make payments Monthly or Down Pay as the exception. The Total Premium is calculated as the last report. HST is calculated at 15% on the Total Premium, and the Total Cost is the total premium plus the HST. Calculate the monthly payment by adding a processing fee of $39.99 to the total cost and dividing by 12 – subtract the downpayment first if there is one.

```
12345678901234567890123456789012345678901234567890123456789012345678901234567890123

ONE STOP INSURANCE COMPANY
MONTHLY PAYMENT LISTING AS OF dd-Mon-yy

POLICY CUSTOMER              TOTAL              TOTAL      DOWN       MONTHLY
NUMBER NAME                 PREMIUM     HST     COST      PAYMENT    PAYMENT
================================================================================
XXXX XXXXXXXXXXXXXXXXXXX $#,###.## $###.## $#,###.## $#,###.## $#,###.##
:
XXXX XXXXXXXXXXXXXXXXXXX $#,###.## $###.## $#,###.## $#,###.## $#,###.##
================================================================================
Total policies: ###       $#,###.## $###.## $#,###.## $#,###.## $#,###.##
```

## Project 2 – JavaScript

Create a disk file containing an array of JSON data. Read this file from disk and iterate through the whole array using the forEach() method for the array object. For each record in the JSON file display one or more of the fields of content to the browser console.