

Assignment #1 – Import Exemptions

Canadian residents travelling abroad and returning to Canada may qualify for a personal exemption, allowing them to import a certain value of goods without having to pay duty or taxes. The eligibility and amount of each personal exemption is dependent on the length of time that the resident was absent from Canada as well as the dollar value of goods being imported.

For this assignment you are to create a Java program that determines the appropriate personal import exemption for a returning traveller using the following rules:

Absence of less than 1 day

- No personal exemption

Absence of more than or equal to 1 day but less than 2 days

- Up to \$200 CAD worth of goods may be claimed as a personal exemption
- No alcoholic beverage or tobacco products can be included in the personal exemption
- If the value of goods exceeds \$200 CAD then no personal exemption can be claimed, and regular duty and taxes will apply to the total value of goods being imported

Absence of more than or equal to 2 days

- Up to \$800 CAD worth of goods may be claimed as a personal exemption
- Limited amounts of alcoholic beverage and tobacco products can be included in the exemption
- If the value of goods exceeds \$800 CAD then import duty and taxes, which apply only to the amount of goods exceeding \$800 CAD, are assessed as follows:
 - A special duty rate (7%) is applied to the next \$300 CAD worth of goods
 - Regular duty rates apply to any remaining amount exceeding \$1100 CAD

Your program will obtain three inputs from the user: traveller's name (in the format "last name, first name, initials"), length of absence from Canada (in days), and the total amount of imported goods (in Canadian dollars). Your program will then need to determine the usable personal exemption amount as well as amounts that are subject to import duty and taxes, both special and regular. Lastly, the results displayed by your program should be formatted in a tabular style as shown in the test plan on the next page.

Notes:

- You are NOT required to error-check the inputs in this program
- You should allow fractional values to be input for length of absence, e.g. .5 to represent half a day
- You are NOT required to perform duty or tax amount calculations (i.e. these are out of scope)
- You should use `System.out.printf()` in your program to produce the formatted result table

Test plan

The following is the expected output of 5 separate runs, user input is shown in **bold underlined**.

Traveller's name (last, first, initials): **Cruz, Larry, T.**
Length of absence (# of days): **3**
Total amount of imported goods (\$ CAD): **725**

Import Exemption Report for Larry T. Cruz

```
-----
Absence Period (days)                3.0
...Maximum Personal Exemption         $800.00
...Include Limited Alcohol & Tobacco?   Yes
Usable Personal Exemption              $725.00
Amount Subject to Special Duty & Taxes   $0.00
Amount Subject to Regular Duty & Taxes   $0.00
-----
Total Amount of Imported Goods         $725.00
-----
```

Traveller's name (last, first, initials): **Cruz, Fiona, J.**
Length of absence (# of days): **3**
Total amount of imported goods (\$ CAD): **1222**

Import Exemption Report for Fiona J. Cruz

```
-----
Absence Period (days)                3.0
...Maximum Personal Exemption         $800.00
...Include Limited Alcohol & Tobacco?   Yes
Usable Personal Exemption              $800.00
Amount Subject to Special Duty & Taxes   $300.00
Amount Subject to Regular Duty & Taxes   $122.00
-----
Total Amount of Imported Goods         $1222.00
-----
```

Traveller's name (last, first, initials): **Preston, Lily, M.**
Length of absence (# of days): **.8**
Total amount of imported goods (\$ CAD): **95**

Import Exemption Report for Lily M. Preston

```
-----
Absence Period (days)                0.8
...Maximum Personal Exemption         $0.00
...Include Limited Alcohol & Tobacco?   No
Usable Personal Exemption              $0.00
Amount Subject to Special Duty & Taxes   $0.00
Amount Subject to Regular Duty & Taxes   $95.00
-----
Total Amount of Imported Goods         $95.00
-----
```

Traveller's name (last, first, initials): Timms, Timothy, T.
Length of absence (# of days): 1.5
Total amount of imported goods (\$ CAD): 210

Import Exemption Report for Timothy T. Timms

```
-----
Absence Period (days)                1.5
...Maximum Personal Exemption         $200.00
...Include Limited Alcohol & Tobacco?   No
Usable Personal Exemption              $0.00
Amount Subject to Special Duty & Taxes  $0.00
Amount Subject to Regular Duty & Taxes  $210.00
-----
Total Amount of Imported Goods         $210.00
-----
```

Traveller's name (last, first, initials): Timms, Tina, T.
Length of absence (# of days): 1.5
Total amount of imported goods (\$ CAD): 200

Import Exemption Report for Tina T. Timms

```
-----
Absence Period (days)                1.5
...Maximum Personal Exemption         $200.00
...Include Limited Alcohol & Tobacco?   No
Usable Personal Exemption              $200.00
Amount Subject to Special Duty & Taxes  $0.00
Amount Subject to Regular Duty & Taxes  $0.00
-----
Total Amount of Imported Goods         $200.00
-----
```

Submission and Grading

Please follow the specific submission requirements from your instructor. For a group assignment this would generally mean that one solution, consisting of your group's final Java source code and accompanying text file with output from the test runs, be submitted to Brightspace.

Submissions will be evaluated according to the following standard:

1. Working Java code (60%)
2. Style (20%)
 - Indentation – consistent
 - Readability – good variable names
 - Documentation
 - Comments at the top which include: Name, date, and program description including details on inputs, processing and outputs (4-5 sentences minimum).
 - Block comments indicating major code sections and what they do
3. Sample output that matches the provided test plan (20%)
 - Output formatted according to specification (test plan)