Exercises with Selection – Unit 1.3

These exercises focus on some simple Selection

- if … elif … else
- basic Boolean operators (>, == …)
- and / or

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1. In Ontario HST is 13% and is always charged on fast food when the price of the meal is $4.00 or over. There is no HST if the cost is $3.99 or lower. Create a program that gets the base price of a meal and outputs the total after tax.

2. Write a program that reads in a file name from the user and tells them what kind of file it is by looking at the extension. Your program must be able to recognize at least 5 different file types.
e.g. "Dogs.docx" is a Word Document

3. Ask the user for the current temperature in °C. Give advice using IF statements:

- Below 0 → "It's freezing — wear a winter coat!"
- 0 to 10 → "Wear a jacket."
- 11 to 20 → "A sweater should be fine."
- Above 20 → "T-shirt weather!"

4.A store gives the following discounts:

- 20% discount if total is at least $100
- 10% discount if total is at least $50
- No discount if below $50

Ask the user for their total purchase amount and display how much they saved (dollar amount) and how much they need to pay. Use exactly 2 decimals.

5.Ask the user to enter a sentence. Convert the sentence to **lowercase.** Check if it contains any of the "bad" words: ("heck", "darn", "stupid")

- If any appear → print: "*Inappropriate language detected.*"
- Otherwise → print: "*Sentence is clean.*"

6. When building an enclosure for a python the amount of area at the base of the enclosure should be proportionate to the length of the snake. The minimum needed is 1/2 square foot for each foot in length up to and including 6 and 3/4 square foot for each foot after that. e.g. 9' python needs 5.25 square feet (6 * ½ + 3 * ¾)

Create a program that asks the user how long their python is and tell them the minimum area they need for the base of its enclosure.