CSC108 Lab 4: if statements & for loops

September 29^{th} – October 3^{rd} 2025

1 Overview

Welcome to your fourth lab in CSC108. This lab will focus on using for loops and if statements to operate on strings.

2 Lab Tasks

You will have two functions to implement for this lab, and like with the previous lab, one of them will make use of the `is_palindrome` function which you have implemented in the previous lab.

The specifications for the functions have already been laid out in `lab4.py`, so in order to prevent duplicate information, please download `lab4.py` and complete the functions according to their docstrings. You will note that an `is_palindrome` function is present in this lab too, that is because you will be re-using it for the first function of this lab. If you got it right the last time, then you can just copy over your implementation. However if you did not get it completely right the last time, you are given a chance here to revise your implementation and submit the function again. We will also test that function individually so that you get feedback back for this lab too.

Don't forget, you want to test your code thoroughly so it is recommended that you write your own test cases! General rule of thumb suggests that you create 3-5 test cases when writing a function, but more may be warranted depending on need and complexity. Just keep in mind that you are responsible for testing your code!

Lastly, this is already noted in the lab, but we are noting it here just to be extra sure you've seen it. There are restrictions on what operators and constructs you are allowed to use for this lab (and possibly for future labs). For this lab in particular, you may not use any lists or list methods, or any `try-except` statements. We are restricting the use of these statements because of two reasons: firstly, we haven't covered them in class yet, and as a result we want you to work with the material that you have already learned in class to solve the problems set out in this lab. Secondly, some of these constructs like `try-except` are often used improperly, and for the purposes of this lab, there is no need to use them.

3 QuickTA

We are excited to introduce QuickTA, an interactive chat-based tool designed to provide real-time answers and clarifications while you are problem solving. It can be used to assist you with this lab, while you problem solve `is_palindrome`, `is_palindrome_string`, and `reverse_sentence`.

Access QuickTA for immediate responses and guidance using this link: https://quickta.utm.utoronto.ca

Please note that QuickTA is here to aid you on your Python programming learning journey at UTM, but it should not be used to obtain direct solutions. The responses from QuickTA should not be regarded as those from a member of the CSC108 Teaching Team. If you find yourself uncertain about any information, it is essential to seek clarification from a human!

Feel free to use QuickTA when you require assistance solving your functions, but remember to use it responsibly and within the guidelines. All work that you submit must be created and understood by you!

QuickTA is an experimental tool, and as it leverages the power of generative AI, which means that it may produce inaccurate information. If you notice it produces an error, please report the error using QuickTA reporting feature.

QuickTA will only be available for Lab 4 (meaning the link will cease to work after Sunday, October 12th, 2025), but you may see it again in a future lab! :)

4 Final Check!

Once you are finished, submit `lab4.py` to MarkUs. You'll receive a grade once everyone has submitted and automarking has been done. See you next week!