CS410P

LAB 5L

Purpose

The purpose of this assignment is to give you more practice with conditions using if else decision structures along with learning how to create an exception handler.

Problem

The sound decibel level is associated with how much sound we can tolerate. Here's a table below that approximately tells us what these decibel levels are, and our perception of noise based on the value:

Write a program fragment to read a decibel value (positive integer greater than zero) from the input and print a phrase for what the noise level is perceived as. ***At least part of your program should use a NESTED if statement.***

Use an exception handler to capture all non-numeric values as well as non-integer values. While the exception handler can capture certain types of errors, if you are doing a range check (in this case all values less than or equal to zero are invalid) you will need to take care of it outside the exception handler. If the input is invalid, simply stop the program with a proper error message.

You must also use "constants" at the top of the program for all values that do not change during program execution. *The intention of using constants is to be able to confine them to one section of the program to be able to change them easily if the specifications of the program change at some point in the future. It also helps avoiding programming errors if the same values are used multiple times in the program. Typically constants are defined using uppercase letters in Python.*

Loudness in Decibels	Perception
50 or lower	Quiet
51 – 70	Intrusive
71 – 90	Annoying
91 – 110	Very Annoying
111 – 150	Uncomfortable
Above 150	Unacceptable

Sampel output is available in the public folder for 5L.

Grade Key

A	Name, comments	**5**
B	Use of Constants	**10**
B	Proper input and prompts	**5**
C	Exception handler catches non-numeric and non-integer values	**15**
D	Invalid values less than zero caught and reported	**5**
E	Each loudness intensity is reported correctly for Noise Perception (-6 per incorrect answer)	**42**
F	At least one Nested If block is present	**18**
G	Late Penalty	