CS 1301: Recitation Assignment

Review Topics: File I/O

This is a pair programming assignment!

Overview

Today you will be programming your scribbler robots to read and execute a series of commands from an input file. The input file is a .txt files that specifies the sequence of action your robots are going to perform. In order to do this you will need to implement a function called roboScript that accepts a single parameters, for input file name.

Input File

The input file will have a series of commands each starting in a new line. There are two types of commands that will be performed by your robots. First, a movement command. Second, a musical note command. The format of each command will be as follows:

<type>*space*<value1>*space*<value2>

For the movement command the type is followed by values of duration and velocity. However, in the musical note command type is followed by musical note and duration. You are required to abstract useful information of <action> <time> <speed> for a movement and <action> <frequency> <time> for a musical note respectively. It may be useful to review the split() command in order to extract information from each line also known as parsing. Also, a review of Chapter 8: Sights and sounds of LCWR and understanding song composition on your robot are recommended. Below is a list of commands that will appear in the input file given to you and their respective functions :

fw: Move Forward
bw: Move Backward
bp: Musical Note
tr: Turn Right
tl: Turn Left

Running your program

Sample Run:

<Python Shell>

>>> roboScript('robo.txt',)

10 Points for successfully running the script.