Firat Taxpulat

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CS31

1. **Notable Obstacles**

* The most notable obstacle I had to overcome was trying to encode my original code. Some of my inputs were the same as the examples on the CS website, but some were not. My main problem with this was trying to allow make spaces with the // sign. I still do not know how to figure this out.
* The second most notable obstacle I had to overcome was trying to make brackets around my encoded code. I am still not able to figure this out.

1. **Description**

*Global constants*

*If song has correct syntax*

*Checks if song is empty*

*Checks if the song does not end with a beat*

*Repeatedly checking the song to have the correct syntax*

*If incorrect syntax*

*The song is not a song string*

*If correct syntax*

*The song is a song string*

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*Encodes each character in song*

*Checks for common error*

*Converts accidental notes to numbers*

*Checks for each letter to equal a certain note*

*Converts each accidental sign to increment the note acquired previously*

*Converts all notes to numbers*

*Certain numbers corresponds to certain keys on piano*

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*Encodes the original song*

*Creates variables*

*If the song’s syntax is valid, checks to see if the whole song has playable notes*

*If the whole song has playable notes, outputs the encoded song*

*If the whole song does not have playable notes, returns 2*

*If the whole song’s syntax is not valid, thus, not making it a song string, returns 1*

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*Main function to test my functions*

*Receives a user’s input*

*If the user’s song’s syntax is valid, the program will encode the song.*

**3a. Tests My Project Can Not FulFill**

My project can not properly test “///” – Determine how many space characters are outputted

My project can not properly test “G3B3DD5//G/A/A3B/C5/B3D5//G//G//CE5//C5/D5/E5/F#5/B3G5//G//G/” –

Determine how the program recognizes // characters

My project can not properly test “DADDA/” – Determine if brackets are at each end

My project can not properly test “D3/F#3/A3/D4//D3F#3A3D4/ - Determine if brackets are at each end

**What my project can test**

“” – Tests for empty string

“//” -Tests for space character

“C/C/G/G/A/A/G/” – Tests for the program recognizing the beats

“C8” – Tests for out of bounds octave

“H4” -Tests for out of bounds letter

“G#” and “Bb” -Tests for accidental sign

“B#3” and “Fb4” – Tests for accidental and digit

“Cb6” – Tests for special note

“B#1” -Tests for special note

“C6” -Tests for special note

“C” -Tests for no digit