

Coding Basics 1

Song Functions

Learn about song functions.

Music is often analyzed from a computer science point of view. Pop songs, kids' songs, and poetry all share structures and patterns that make good examples of algorithms (specific sets of steps to do things).

Example 1- "Make New Friends" (2 verses)

Song Lyrics for	Javascript-style code
Make new friends, but keep the old. One is silver, the other is gold. A circle is round, it has no end. That's how long, I will be your friend. Make new friends, but keep the old. One is silver, the other is gold. A circle is round, it has no end. That's how long, I will be your friend.	<pre>var verse1 = "Make new friends, but keep the old. One is silver, the other is gold" var verse2 = "A circle is round, it has no end. That's how long, I will be your friend." sing(verse1) sing(verse2) sing(verse1) sing(verse2) //notice that the program is shorter than the original song lyrics when we use functions and variables!</pre>

Example 2 - "We Shall Overcome"

Song Lyrics for	Javascript-style code
We shall overcome We shall overcome We shall overcome, some day Oh, deep in my heart I do believe We shall overcome, some day We'll walk hand in hand We'll walk hand in hand We'll walk hand in hand, some day Oh, deep in my heart I do believe We shall overcome, some day We shall live in peace We shall live in peace We shall live in peace, some day Oh, deep in my heart I do believe We shall overcome, some day We are not afraid We are not afraid We are not afraid, TODAY	<pre>var verse1 = "We shall overcome" var verse2 = "We'll walk hand in hand" var verse3 = "We shall live in peace" var verse4 = "We are not afraid" var chorus = "Oh, deep in my heart I do believe We shall overcome, some day" for 1...3 sing(verse1) // this is repeated 3 times sing("some day" + chorus) // no repeat (no indent) for 1...3 sing(verse2) sing("some day"+ chorus) for 1..3 sing(verse3) sing("some day"+ chorus) for 1..3 sing(verse4) sing("TODAY") // With loops, you can make things shorter, and, // if you wanted to change the verse lyric, you // only need to change one line!</pre>

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Fill in the song lyric with a song of your choice on the left side. Then write the Javascript-style code on the right side. Use the examples for guidance!

Hint: You're going to use the function `sing()` to write the code. You might use the same `sing` function many times but change the arguments for different lyrics.

Song Lyrics for	Javascript-style code