Jukebox Assignment - Part 1

Introduction

You will build a Jukebox app using Javascript. It won't be that impressive at first, but we'll make it better every week. It will work as follows:

- When the user loads Jukebox, it prompts them to enter a song to play.
- Jukebox plays the song the user entered.
- When the song is finished playing, Jukebox prompts the user to enter another song.

Songs will be entered as a string of notes separated by spaces (e.g. `"A B C# D"`). The letters represent the pitch to play. The user can also optionally specify the length of each note (the number of beats) using (e.g. `"A*2 B C#*3 D"`). If the number of beats isn't specified, it should default to 1.

Setup

I've provided you with `player.js` which defines a function called `playSong` to play a song composed of an array of note objects. You can use `playSong` as follows:

```javascript
var notes = [{pitch: 'A', beats: 1}, {pitch: 'C#', beats: 2}, {pitch: 'D', beats: 4}];
// Play the song at 400 beats per minute.
playSong(notes, 400);
```

Tasks

1. Create a new script file called `jukebox.js`, where you will put all of your Javascript for this assignment.

2. First we need to be able to parse individual notes. Write a function called `parseNote`, that takes a string representing a single note (e.g. "C#*2" or "A") and returns a note object (e.g. {pitch: "C#", beats: 2}). If the user doesn't provide a number of beats (e.g. "C#") then set beats to 1.

   ```javascript
   // Example usage
   parseNote("C#*2"); //=> { pitch: 'C#', beats: 2}
   parseNote("D"); //=> { pitch: 'D', beats: 1}
   ```

3. Now let's parse a whole song string. Write a function called `parseSong` that takes a song string as above, and returns an array of note objects. The `parseSong` function should use the `parseNote` function.

   ```javascript
   // Example usage
   ```

```
parseSong("Ab B"); // => [{pitch: 'Ab', beats: 1}, {pitch: 'B',
beats: 1}]
```

4. Finally, let's build our amazing Jukebox! Create an HTML page that, when loaded, prompts the user for a song string and plays the song. To keep things clean, please use two script tags in your page. One to load the provided `player.js` file, and one to load your own `jukebox.js` file.

Bonus

1. When the song if finished playing, prompt the user for another song, forever! Hint: You can pass an optional 3rd parameter to `playSong`, a function that will get called when the song is finished playing, as shown below.

```
var onComplete = function () {
  console.log('Song finished playing');
}

playSong(song, bpm, onComplete);
```