**Description of program’s code structure:**

**Method Documentation:**

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| **Methods** | **Description** |
| random\_song(mode, num\_song) | Print songs from database that meet the requirements from user, including number of generated songs and categories - where mode is the number that indicate (1) emotion (2) genre (3) occasion (4) random. |
| random\_sub\_list(mode, num\_song, sub\_choice) | A helper method toward random\_song method, which generates song randomly based on the sub-category choice user chooses previously. |

**Code structure:**

This chart indicates the method and their internal structure code: First, the program runs their main() method, asking for user’s information that is the number of songs user wants to receive. Then the main() function asks the user to select a song recommendation mode from 4 modes: Emotion, Genre, Occasion, Random. Second, from this chosen mode, the program executes random\_song() function to generate songs. If user chooses "Random" mode, the program will return randomized songs from all songs in the dataset, based on the number of songs they indicated in the first step. Otherwise, if user chooses either "Emotion", "Genre", or "Occasion" mode, the program will ask user to select a specific sub-category within that mode. Then, the program executes the random\_sub\_list() function to randomize songs from the corresponding sub-category and return to user the songs they ask for.