Ruby Assignment Five

James Keating

Student Number: 13508803

COMP47530: Ruby Practical

UCD School of Computer Science

University College Dublin

October 13, 2017

Itunes Assignment

There were 3 steps to this assignment:

- **Replacing csv files contents:** I replaced the song details in songs.csv with my own songs. I also changed the owners in owners.cvs

- **Building all albums:** this was implemented in the **album.rb** class. It is done using class two methods. The first method 'build all' uses the $songs variable to get the names of all albums. Then each of these names is passed to 'build_an_album_called' which returns an album object. One album is generated per album name and a list of all the albums is returned.

  build_an_album_called needs to generate 5 pieces of data to make an album:

  1. **Album Name:** this is passed by build all
  2. **Tracks:** this is a list of the song objects representing the songs in the album. This is gotten using a select on $songs
  3. **Length** this is gotten by summing the time tracks. (implemented using inject)
  4. **Artist:** this is taken from the first track in the album. (could be taken from any as they are all the same)
  5. **Owners** I say someone owns an album when they own all the songs in that album. To do this I convert each song in the albums .owners attribute (which is a string) to and array. I then get the intersection of the arrays (the people who own all the songs). The intersections is then used as the owners. (possibly this should be made a string to remain consistent with the song.owners attribute but I thought an array was better).

```
Printing full details of all Albums...
#<Album:0x00000002f6ccd0 @name="The Magic Whip", @tracks=[#<Song:0x00000002fd18b0 @name="
#<Album:0x00000002f6c280 @name="I Had the Blues and I Shook Them Loose", @tracks=[#<Song:
#<Album:0x00000002ec7d70 @name="One by One", @tracks=[#<Song:0x00000002fc5d58 @name="Low"
#<Album:0x00000002ec7938 @name="The Joshua Tree", @tracks=[#<Song:0x00000002fbb420 @name=
#<Album:0x00000002ec7690 @name="Recovery", @tracks=[#<Song:0x00000002fb8bd0 @name="So Bad
#<Album:0x00000002ec72d0 @name="American Idiot", @tracks=[#<Song:0x00000002f86018 @name="
```

- **ID input errors:** the final questions was to see how incorrect ids effected the program and try and handle the errors it caused. The primary issue I noticed when a invalid ID was entered was that " would assign nil to a songs owners as there was no ID matching the invalid input. To handle the I replaced the line of code in itunes.rb which updated songs ownership details with the **update_song_ownership** method. This method simply deletes a song from $songs and gives a warning via console if the song does not have a corresponding id in the owners file.

```
Updating songs with ownership details...

The song New World Towers does not have a matching id in the owners file.
Please check the IDs (111) for this song is correct. The song will be excluded from itunes for
Building All Albums...
```