Unit 15 Assignment

Directions:

Please complete the following assignment to signify your completion of Unit 15. All programming projects need to be completed and submitted electronically, following the Electronic Submission Guidelines discussed in class.

Background:

The purpose of this assignment is to construct a Rails web application that incorporates a database association as described in the content of this unit. I hope it will begin to show you all the power of Rails.

Project 1: ArtistAlbum Application

Create an ArtistAlbum application using Rails by defining the following database model:

ARTIST table

ARTIST_ID	FIRSTNAME	LASTNAME	GENDER
01	Barry	Manilow	Male
02	Bruce	Springsteen	Male
03	Taylor	Swift	Female
04	Lady	Gaga	Female
Primary Key	Varchar	Varchar	Varchar

ALBUM table

ALBUM_ID	ARTIST_ID	TITLE	STARRATING	YEARRELEASED
100	01	My Dream Duets	5	2014
101	02	High Hopes	3	2014
102	03	1989	5	2014
103	04	Cheek to Cheek	3	2014
Primary Key	Foreign Key	Varchar	Integer	Integer

Build a new Rails application by issuing the command:

```
rails new ArtistAlbumApp
```

One Extra Command For Mac Users Only

In an effort to support as many systems as possible, we will run into a versioning problem at this point. To be sure everyone is working with the same set of things, I need to ask Mac users to issue one extra command at this point. Begin by editing the file named `Gemfile`. It will be located in the /ArtistAlbumApp directory. It is a normal textfile. Right at the top, there will be a line that says:

```
gem 'rails', '4.1.8'
```

It might actually say an even higher version by the time we get to this in class. We need to bring that version

down to 4.1.4. So please make that line say:

```
gem 'rails', '4.1.4'
```

Exit your editor and at the Terminal window, enter the command:

```
bundle update
```

Please be patient and allow this process to complete. You will only need to do this just once in the life of an application.

Use Rails to generate the database model. (Remember to use artist and album, not artists and albums as the name of your model...)

Use Rake to migrate your model definition by issuing the command:

```
rake db:migrate
```

Carefully create seed data that matches the data show above. (You will need to create artists first, save these values into variables that then get reused when you create albums. Remember that you won't need to make a primary key field because Rails will automagically do this for you by using the `id` field.) Then seed your database by issuing the commands:

```
rake db:reset db:seed
```

Verify all your seed data by running Rails Console and issuing the commands:

```
Artist.all( )
Album.all( )
```

Build fixture data that matches what you seeded into your database so that you'll be able to write tests against this database.

Update the file: `test/models/artist_test.rb` so that the `ArtistTest` tests that
- there are 4 different artists
- each artist has an album associated with it
- one of the artists is named "Barry Manilow"

Update the file: test/models/album_test.rb so that the AlbumTest tests that
-there are 4 different albums
-each album was released in 2014
-there are no albums with 2 stars or 1 stars

Run all your tests by issuing the command:

```
rake test:models
```

Zip and then upload your ArtistAlbum folder once you complete this work.