

Course Number	<b>COE 848</b>
Course Title	<b>Fundamentals of Data Engineering</b>
Semester/Year	2022 Winter
Instructor	<b>Dr. Faezeh Ensan</b>
Teaching Assistant	<b>Shirin Seyedsalehi</b>

<b>Lab Report No.</b>	<b>1</b>
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Report Title	<b>Lab 1 Report</b>
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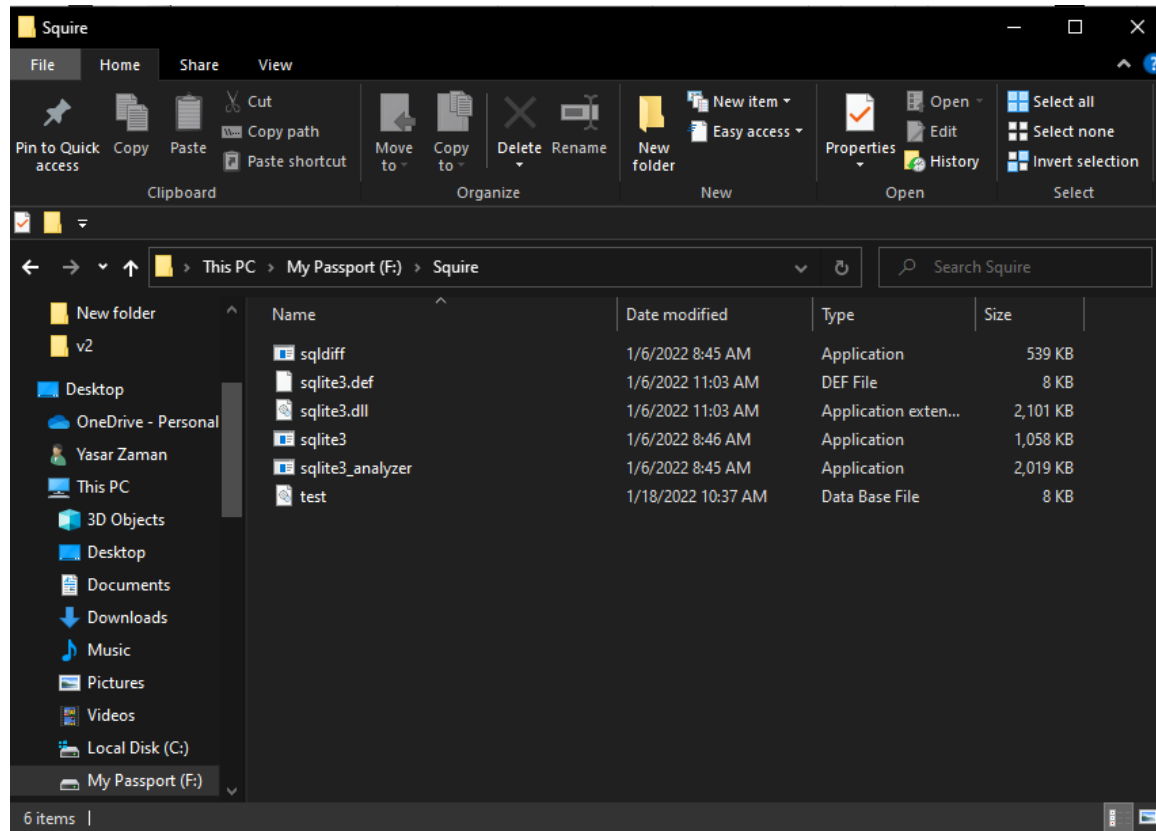
Section No.	<b>2</b>
Submission Date	<b>January 24th, 2022</b>
Due Date	<b>January 24th, 2022</b>

Name	Student ID	Signature*
Yasar Zaman	xxxx13595	Y.Z

(Note: remove the first 4 digits from your student ID)

*\*By signing above you attest that you have contributed to this submission and confirm that all work you have contributed to this submission is your own work. Any suspicion of copying or plagiarism in this work will result in an investigation of Academic Misconduct and may result in a "0" on the work, an "F" in the course, or possibly more severe penalties, as well as a Disciplinary Notice on your academic record under the Student Code of Academic Conduct, which can be found online at:*  
<http://www.ryerson.ca/senate/policies/pol60.pdf>.

## **Step 1: Installing SQLite3**



**Figure 1: Installed SQLite3 and Testbench Created**

## **Step 2: Project Specifications**

The overall project for this course consists of creating a database for any particular subject/theme. The objective for my project will be to create a database that will be similar to that of the website <https://myanimelist.net>. The database will consist of anime; the anime names, voice actors, plot, genre, seasons, etc. The main reason for this decision is that I feel it will not only be easier to create as I am already familiar with how the database is organized in websites similar to myanimelist.net, but it will also allow me to enjoy the entire process. I love watching different anime, different genres; all with some similar plot lines, or completely different plot lines. I can recognize certain voice actors and I love checking the database of websites to see if my initial guess of the voice actor was correct. The joy that I take when I go through their database and look for actors, genres for anime, ratings, etc, is amazing and I want to create a similar joy when designing my own database for them.

The specifications for my database will include a list for the following headings: Genres, Voice Actors, Number of Episodes, Personal Ratings, Plot Similarities, Season of Release, Animation Studio, and Manga/Anime Completion. For each of these headings, there will be options that an anime can fall under; for example, the anime 'Naruto Shippuden' can be classified as a 'Shounen' genre, the list of voice actors, 500 episodes,

a person rating of 8/10, that was released in the Winter season of 2017 with a completed manga and anime. We see that the genre is identified, the list of voice actors would be named, the number of episodes, a personal rating and the season the anime came out, as well as whether the manga was completed. An interesting idea that I can try and utilize is creating a review for each of the anime I have watched and compiling a list of common words for those anime. For example, if I described one anime as very creepy and contains a lot of gore; 'very creepy' and 'a lot of gore' may be key words that I used to describe another anime and thus would connect the two anime.

This type of database will help me to keep track of the anime that I watched or are watching currently. Being a person that has watched more anime than any of my friends in my circle allows me to suggest anime for different genres to friends that are looking to start watching anime. The only limitation is my memory as the only detail of the anime I can properly remember without searching up is the genre of the anime. This means that I would get suggestions based on the genre only; however, with my database, I can cater to more different anime based on if the individual liked a certain voice actor or if they prefer to watch anime that has finished airing as opposed to one that is still airing.

The list of queries that I would want my system to be able to answer:

- 1) What is the most watched genre of anime?
- 2) Which voice actor appears the most out of all the anime?
- 3) Which anime has at least a 7/10 rating?
- 4) Which season+year of anime did you watch the most?
- 5) What is your lowest rated anime?
- 6) What was the highest rated season?
- 7) How many anime did a certain voice actor play in?
- 8) What is the average length in episodes of a particular genre?
- 9) Which studio animated the most anime?
- 10) What is the average rating for a particular genre?