

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

Lab Report No.	5
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Report Title	Lab 5 Report
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Section No.	2
Submission Date	March 28th, 2022
Due Date	March 28th, 2022

Name	Student ID	Signature*
Yasar Zaman	xxxx13595	Y.Z

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

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<http://www.ryerson.ca/senate/policies/pol60.pdf>.

Tables

```
PRAGMA foreign_keys=OFF;
BEGIN TRANSACTION;
CREATE TABLE contract (
contractID INTEGER PRIMARY KEY AUTOINCREMENT,
contractSalary INTEGER NOT NULL,
contractExpire DATE,
studioID INT NOT NULL,
vaID INT NOT NULL,
CONSTRAINT fk_studioID FOREIGN KEY (studioID) REFERENCES studio (studioID),
CONSTRAINT fk_vaID FOREIGN KEY (vaID) REFERENCES voiceActor (vaID)
);
INSERT INTO contract VALUES(1,100000,1991,1,1);
INSERT INTO contract VALUES(2,200000,1985,2,2);
INSERT INTO contract VALUES(3,100000,1975,3,3);
INSERT INTO contract VALUES(4,150000,1978,4,4);
INSERT INTO contract VALUES(5,250000,1981,5,5);
INSERT INTO contract VALUES(6,100000,1970,6,6);
INSERT INTO contract VALUES(7,250000,1980,3,7);
INSERT INTO contract VALUES(8,150000,1981,7,8);
INSERT INTO contract VALUES(9,200000,1980,8,9);
INSERT INTO contract VALUES(10,150000,1977,9,10);
CREATE TABLE merchandise (
merchandiseID INTEGER PRIMARY KEY AUTOINCREMENT,
merchandiseType VARCHAR(255) NULL,
merchandiseMat VARCHAR(255) NULL,
animeID INT NOT NULL,
CONSTRAINT fk_animeID FOREIGN KEY (animeID) REFERENCES anime (animeID),
CONSTRAINT ck_merchandiseType UNIQUE (merchandiseType)
);
INSERT INTO merchandise VALUES(1,'Figure','Plastic',1);
INSERT INTO merchandise VALUES(2,'Pillow','Polyester',7);
INSERT INTO merchandise VALUES(3,'Sword','Metal',5);
```

```

CREATE TABLE author (
authorID INTEGER PRIMARY KEY AUTOINCREMENT,
authorName VARCHAR(255) NOT NULL,
authorDOB DATE,
authorAge INT NOT NULL,
contractID INT NOT NULL,
CONSTRAINT fk_contractID FOREIGN KEY (contractID) REFERENCES contract (contractID),
CONSTRAINT ck_author UNIQUE (authorName)
);
INSERT INTO author VALUES(1,'Masashi Kishimoto',1975.1179999999999381,47,1);
INSERT INTO author VALUES(2,'Matcha Hazuki',1968,31,2);
INSERT INTO author VALUES(3,'Hiro Fujiwara',1946,40,3);
INSERT INTO author VALUES(4,'Haruho Shiina',1942,46,4);
INSERT INTO author VALUES(5,'Nobuhiro Watsuki',1939,51,5);
INSERT INTO author VALUES(6,'Kanae Hazuki',1962,41,6);
INSERT INTO author VALUES(7,'Yuyuko Takemiya',1952,44,7);
INSERT INTO author VALUES(8,'Miki Yoshikawa',1970,39,8);
INSERT INTO author VALUES(9,'Satoshi Wagahara',1958,40,9);
INSERT INTO author VALUES(10,'Karino Takatsu',1955,39,10);
CREATE TABLE voiceActor (
vaID INTEGER PRIMARY KEY AUTOINCREMENT,
vaName VARCHAR(255) NOT NULL,
vaDOB DATE,
vaSex VARCHAR(255) NOT NULL,
vaAge INT NOT NULL,
contractID INT NOT NULL,
CONSTRAINT fk_contractID FOREIGN KEY (contractID) REFERENCES contract (contractID),
CONSTRAINT ck_voiceActor UNIQUE (vaName)
);
INSERT INTO voiceActor VALUES(1,'Junko Takeuchi',1963,'Female',49,1);
INSERT INTO voiceActor VALUES(2,'Yoshitaka Yamaya',1975,'Male',31,2);
INSERT INTO voiceActor VALUES(3,'Nobuhiko Okamoto',1952,'Male',36,3);
INSERT INTO voiceActor VALUES(4,'Mamiko Noto',1972,'Female',43,4);
INSERT INTO voiceActor VALUES(5,'Mayo Suzukaze',1940,'Female',62,5);
INSERT INTO voiceActor VALUES(6,'Ai Kayano',1965,'Female',35,6);
INSERT INTO voiceActor VALUES(7,'Junji Majima',1960,'Male',44,7);
INSERT INTO voiceActor VALUES(8,'Sori Hayami',1957,'Female',32,8);
INSERT INTO voiceActor VALUES(9,'Ryouta Oosaka',1976,'Male',36,9);
INSERT INTO voiceActor VALUES(10,'Jun Fukuyama',1941,'Male',44,10);

```

```

CREATE TABLE studio (
studioID INTEGER PRIMARY KEY AUTOINCREMENT,
studioName VARCHAR(255) NOT NULL,
studioDOB DATE,
studioAge INT NOT NULL,
contractID INT NOT NULL,
CONSTRAINT fk_contractID FOREIGN KEY (contractID) REFERENCES contract (contractID),
CONSTRAINT ck_studio UNIQUE (studioName)
);
INSERT INTO studio VALUES(1,'Studio Pierrot',1969,43,1);
INSERT INTO studio VALUES(3,'J.C.Staff',1967,36,3);
INSERT INTO studio VALUES(4,'Production I.G',1985,15,4);
INSERT INTO studio VALUES(5,'Gallop',1953,44,5);
INSERT INTO studio VALUES(6,'Zecxs',1974,25,6);
INSERT INTO studio VALUES(7,'LIDENFILMS',1988,10,7);
INSERT INTO studio VALUES(8,'White Fox',1999,15,8);
INSERT INTO studio VALUES(9,'A-1 Pictures',1991,17,9);
INSERT INTO studio VALUES(10,'Studio Deen',1958,47,10);
CREATE TABLE anime (

```

```

CREATE TABLE anime (
animeID INTEGER PRIMARY KEY AUTOINCREMENT,
animeName VARCHAR(255) NOT NULL,
animeGenre VARCHAR(255) NOT NULL,
animeRD DATE,
animeNOE INT NOT NULL,
animeRating REAL NOT NULL,
animeAge INT NOT NULL,
contractID INT NOT NULL,
CONSTRAINT fk_contractID FOREIGN KEY (contractID) REFERENCES contract (contractID),
CONSTRAINT ck_animeName UNIQUE (animeName)
);
INSERT INTO anime VALUES(1,'Naruto Shippuden','Action',1990,500,8.2300000000000004263,15,1);
INSERT INTO anime VALUES(2,'One Week Friends','Slice of Life',2003,12,7.540000000000000355,7,2);
INSERT INTO anime VALUES(3,'Kaichou wa Maid-Sama','Romance',2004,26,8.0199999999999995736,11,3);
INSERT INTO anime VALUES(4,'Kimi no Todoke','Romance',1998,37,8.0,10,4);
INSERT INTO anime VALUES(5,'Rurouni Kenshin','Action',1985,94,8.3000000000000007105,16,5);
INSERT INTO anime VALUES(6,'Say I love you','Romance',1974,10,6.8099999999999996092,9,6);
INSERT INTO anime VALUES(7,'Toradora!','Romance',1996,11,8.1199999999999992184,13,7);
INSERT INTO anime VALUES(8,'Yamada-kun and the Seven Witches','Slice of Life',1999,12,7.58000000000000071,6,8);
INSERT INTO anime VALUES(9,'The Devil is a Part-Timer!','Comedy',2005,13,7.790000000000000355,8,9);
INSERT INTO anime VALUES(10,'Wagnaria!!','Slice of Life',2002,39,7.83000000000000071,11,10);
DELETE FROM sqlite_sequence;
INSERT INTO sqlite_sequence VALUES('contract',10);
INSERT INTO sqlite_sequence VALUES('author',10);
INSERT INTO sqlite_sequence VALUES('merchandise',3);
INSERT INTO sqlite_sequence VALUES('studio',10);
INSERT INTO sqlite_sequence VALUES('anime',10);
INSERT INTO sqlite_sequence VALUES('voiceActor',10);
COMMIT;

```

Compiling

In order to compile this code properly, You have to make sure that the location of the database file is correct. On line 23, an edit must be made that adjusts the location of the database of the save file for the database. I also don't know if you need to re-add the java extension, but you have to double-check if it is there. If those two are fixed, then the code will compile and run correctly.

Screenshot Results

List of Options:

Please select your question from the anime database

If you would like to quit, type f

1. Most watched genre of anime
2. Which voice actor appears the most
3. Which anime has at least a 7.00 rating
4. Which year of anime did you watch the most
5. What is your lowest rated anime
6. What is your highest rated anime
7. How old is a certain actor
8. What is the average length in episodes of a particular genre
9. Which studio is the oldest established studio
10. What is the average rating for slice of life animes

Query 1	Query 2	Query 3	Query 4	Query 5
1 animeGenre, cnt Romance , 4 Slice of Life , 3 Action , 2 Comedy , 1	2 vaName, cnt Ai Kayano , 1 Jun Fukuyama , 1 Junji Majima , 1 Junko Takeuchi , 1 Mamiko Noto , 1 Mayo Suzukaze , 1 Nobuhiko Okamoto , 1 Ryouta Oosaka , 1 Sori Hayami , 1 Yoshitaka Yamaya , 1	3 animeName One Week Friends Yamada-kun and the Seven Witches The Devil is a Part-Timer! Wagnaria!! Kimi no Todoke Kaichou wa Maid-Sama Toradora! Naruto Shippuden Rurouni Kenshin	4 animeRD, cnt 2005 , 1 2004 , 1 2003 , 1 2002 , 1 1999 , 1 1998 , 1 1996 , 1 1990 , 1 1985 , 1 1974 , 1	5 min(animeRating) 6.81

Query 6	Query 7	Query 8	Query 9	Query 10
6 max(animeRating) 8.3	8 What is the name of the genre: Slice of Life avg(animeNOE) 21.0	8 What is the name of the genre: Romance avg(animeNOE) 21.0	9 studioDOB, cnt 1953 , 1 1958 , 1 1967 , 1 1969 , 1 1974 , 1 1985 , 1 1988 , 1 1991 , 1 1999 , 1	10 What is the name of the genre: Romance avg(animeRating) 7.7375