**Part 1: User data setup (30%)**

The developers of Street Fighter previously had a simple discussion board among themselves that was used by the team for communication. They have exported the raw data in the database for you in a CSV file a reference (see **SFVI Forum Users.csv**), and they want the data to be imported into the new database that you are creating for them.

Do note that, as the old board was created by an intern, it might not be structured correctly, so **you will need to help them make the necessary changes to the data**.

You have been tasked with the following:

Tasks:

1. Analyse the fields and data in the csv file and create an appropriate data model for storing the data in a MySQL database. You will need to ensure that the table(s) you create are all in 3NF.
2. Write an SQL script to insert the data in the CSV file into the database.

What to submit:

1. ER diagram of the database. (10 marks)
2. SQL script to create the new table(s) (10 marks)
3. SQL script to load CSV data into the database tables (10 marks)

Diagram

Description automatically generated

**SQL script to create table ‘SFVI.USER’**

CREATE TABLE SFVI.USER (

EMAIL VARCHAR(255) PRIMARY KEY,

USERNAME VARCHAR(30) NOT NULL,

FIRST\_NAME VARCHAR(55) NOT NULL,

LAST\_NAME VARCHAR(55) NOT NULL,

PWDS VARCHAR(16) NOT NULL

);

**SQL script to create table ‘SFVI.USER\_TOPIC’**

CREATE TABLE SFVI.USER\_TOPIC (

EMAIL VARCHAR(255),

TOPIC\_ID INT,

PRIMARY KEY (EMAIL, TOPIC\_ID),

FOREIGN KEY (EMAIL) REFERENCES SFVI.USER(EMAIL),

FOREIGN KEY (TOPIC\_ID) REFERENCES SFVI.TOPIC(TOPIC\_ID)

);

**SQL script to create table ‘SFVI.CD\_TOPIC\_CATEGORY’**

CREATE TABLE SFVI.CD\_TOPIC\_CATEGORY (

TOPIC\_CATEGORY\_ID INT AUTO\_INCREMENT PRIMARY KEY,

TOPIC\_CATEGORY VARCHAR(50) NOT NULL

);

**SQL script to create table ‘SFVI.TOPIC’**

CREATE TABLE SFVI.TOPIC (

TOPIC\_ID INT AUTO\_INCREMENT PRIMARY KEY,

TOPIC\_TITLE VARCHAR(300) NOT NULL,

DTE\_CR\_TOPIC DATETIME NOT NULL DEFAULT CURRENT\_TIMESTAMP,

TOPIC\_CATEGORY\_ID INT(9) NOT NULL,

FOREIGN KEY (TOPIC\_CATEGORY\_ID) REFERENCES SFVI.CD\_TOPIC\_CATEGORY(TOPIC\_CATEGORY\_ID)

);

**SQL script to load the data from csv file to table ‘SFVI.USER’**

As MySQL server is running with the --secure-file-priv option, after executing SHOW VARIABLES LIKE "secure\_file\_priv"; It tell us that we need to put out csv file in C:\ProgramData\MySQL\MySQL Server 8.0\Uploads\

LOAD DATA INFILE 'C:/ProgramData/MySQL/MySQL Server 8.0/Uploads/USER.csv'

INTO TABLE SFVI.USER

FIELDS TERMINATED BY ','

ENCLOSED BY '"'

LINES TERMINATED BY '\n'

IGNORE 1 ROWS

(EMAIL, USERNAME, FIRST\_NAME, LAST\_NAME, PWDS);

**Alternative you can run the below SQL script to load the table ‘SFVI.USER’**

INSERT sfvi.user (email, username, first\_name, last\_name, pwds) VALUES ('takanaka@capcom.com','takanaka','Takayuki','Nakayama','dzm6mw185bgibmj3');

INSERT sfvi.user (email, username, first\_name, last\_name, pwds) VALUES ('tsuchiya@capcom.com','tsuchiya','Kazuhiro','Tsuchiya','ivni4d6q0ddomzhr');

INSERT sfvi.user (email, username, first\_name, last\_name, pwds) VALUES ('yoshiono@capcom.com','theoneono','Yoshinori','Ono','3vpdn1kxarb25dn9');

INSERT sfvi.user (email, username, first\_name, last\_name, pwds) VALUES ('yusuke@capcom.com','yusuke','Yusuke','Hashimoto','2z24frcnq41rvw4k');

INSERT sfvi.user (email, username, first\_name, last\_name, pwds) VALUES ('theterayama@capcom.com','yoshitera','Yoshiya','Terayama','pxtknpr3kxqxxupb');

**Output:**

A screenshot of a computer

Description automatically generated

**SQL script to load the data from csv file to table ‘SFVI.CD\_TOPIC\_CATEGORY’**

As MySQL server is running with the --secure-file-priv option, after executing SHOW VARIABLES LIKE "secure\_file\_priv"; It tell us that we need to put out csv file in C:\ProgramData\MySQL\MySQL Server 8.0\Uploads\

LOAD DATA INFILE 'C:/ProgramData/MySQL/MySQL Server 8.0/Uploads/CD\_TOPIC\_CATEGORY.csv'

INTO TABLE SFVI.CD\_TOPIC\_CATEGORY

FIELDS TERMINATED BY ','

ENCLOSED BY '"'

LINES TERMINATED BY '\n'

IGNORE 1 ROWS

(TOPIC\_CATEGORY\_ID, TOPIC\_CATEGORY);

**Alternative you can run the below SQL script to load the table ‘SFVI.** **CD\_TOPIC\_CATEGORY’**

INSERT sfvi.cd\_topic\_category (topic\_category) values ('Mechanics & Balancing');

INSERT sfvi.cd\_topic\_category (topic\_category) VALUES ('General');

INSERT sfvi.cd\_topic\_category (topic\_category) VALUES ('New Features');

INSERT sfvi.cd\_topic\_category (topic\_category) VALUES ('Asset Creation');

**Output:**

A screenshot of a computer

Description automatically generated

**SQL script to load the data from csv file to table ‘SFVI.TOPIC’**

As MySQL server is running with the --secure-file-priv option, after executing SHOW VARIABLES LIKE "secure\_file\_priv"; It tell us that we need to put out csv file in C:\ProgramData\MySQL\MySQL Server 8.0\Uploads\

LOAD DATA INFILE 'C:/ProgramData/MySQL/MySQL Server 8.0/Uploads/TOPIC.csv'

INTO TABLE SFVI.TOPIC

FIELDS TERMINATED BY ','

ENCLOSED BY '"'

LINES TERMINATED BY '\n'

IGNORE 1 ROWS

(TOPIC\_ID, TOPIC\_TITLE, @DTE\_CR\_TOPIC, TOPIC\_CATEGORY\_ID)

SET DTE\_CR\_TOPIC = STR\_TO\_DATE( @DTE\_CR\_TOPIC, '%d/%m/%Y %H:%i:%s');

**Alternative you can run the below SQL script to load the table ‘SFVI.TOPIC’**

INSERT sfvi.topic (topic\_title, dte\_cr\_topic, topic\_category\_id) values ('Drive impact is overpowered, how do we rebalance it?', STR\_TO\_DATE("29/10/2021 11:22:23", "%d/%m/%Y %H:%i:%s"), 1);

INSERT sfvi.topic (topic\_title, dte\_cr\_topic, topic\_category\_id) values ('Launch date is 2 June 2023, get ready!', STR\_TO\_DATE("12/11/2022 14:12:43", "%d/%m/%Y %H:%i:%s"), 2);

INSERT sfvi.topic (topic\_title, dte\_cr\_topic, topic\_category\_id) values ('New year''s cohesion dinner', STR\_TO\_DATE("01/01/2023 00:00:00", "%d/%m/%Y %H:%i:%s"), 2);

INSERT sfvi.topic (topic\_title, dte\_cr\_topic, topic\_category\_id) values ('I''ve been fired. Goodbye!', STR\_TO\_DATE("06/05/2021 07:08:34", "%d/%m/%Y %H:%i:%s"), 2);

INSERT sfvi.topic (topic\_title, dte\_cr\_topic, topic\_category\_id) values ('New character idea: Ballet dancer', STR\_TO\_DATE("22/06/2022 04:19:33", "%d/%m/%Y %H:%i:%s"), 3);

INSERT sfvi.topic (topic\_title, dte\_cr\_topic, topic\_category\_id) values ('New character idea: Female roman warrior', STR\_TO\_DATE("21/06/2022 03:23:13", "%d/%m/%Y %H:%i:%s"), 3);

INSERT sfvi.topic (topic\_title, dte\_cr\_topic, topic\_category\_id) values ('New BGM compositions', STR\_TO\_DATE("21/04/2021 11:11:12", "%d/%m/%Y %H:%i:%s"), 4);

INSERT sfvi.topic (topic\_title, dte\_cr\_topic, topic\_category\_id) values ('Should we bring parry back?', STR\_TO\_DATE("07/06/2021 05:45:45", "%d/%m/%Y %H:%i:%s"), 1);

INSERT sfvi.topic (topic\_title, dte\_cr\_topic, topic\_category\_id) values ('More new BGM compositions', STR\_TO\_DATE("28/02/2021 02:03:34", "%d/%m/%Y %H:%i:%s"), 4);

INSERT sfvi.topic (topic\_title, dte\_cr\_topic, topic\_category\_id) values ('Blanka doll giveaway', STR\_TO\_DATE("06/12/2020 08:18:24", "%d/%m/%Y %H:%i:%s"), 2);

INSERT sfvi.topic (topic\_title, dte\_cr\_topic, topic\_category\_id) values ('What do you guys think of having a Drive Gauge?', STR\_TO\_DATE("01/01/2023 03:19:45", "%d/%m/%Y %H:%i:%s"), 3);

**Output:**

A screenshot of a computer

Description automatically generated

**SQL script to load the data from csv file to table ‘SFVI.\_USER\_TOPIC’**

As MySQL server is running with the --secure-file-priv option, after executing SHOW VARIABLES LIKE "secure\_file\_priv"; It tell us that we need to put out csv file in C:\ProgramData\MySQL\MySQL Server 8.0\Uploads\

LOAD DATA INFILE 'C:/ProgramData/MySQL/MySQL Server 8.0/Uploads/USER\_TOPIC.csv'

INTO TABLE SFVI.USER\_TOPIC

FIELDS TERMINATED BY ','

ENCLOSED BY '"'

LINES TERMINATED BY '\n'

IGNORE 1 ROWS

(EMAIL, TOPIC\_ID);

**Alternative you can run the below SQL script to load the table ‘SFVI.USER\_TOPIC’**

INSERT sfvi.USER\_TOPIC (EMAIL, TOPIC\_ID) values ('takanaka@capcom.com', 1);

INSERT sfvi.USER\_TOPIC (EMAIL, TOPIC\_ID) values ('takanaka@capcom.com', 2);

INSERT sfvi.USER\_TOPIC (EMAIL, TOPIC\_ID) values ('tsuchiya@capcom.com', 3);

INSERT sfvi.USER\_TOPIC (EMAIL, TOPIC\_ID) values ('yoshiono@capcom.com', 4);

INSERT sfvi.USER\_TOPIC (EMAIL, TOPIC\_ID) values ('takanaka@capcom.com', 5);

INSERT sfvi.USER\_TOPIC (EMAIL, TOPIC\_ID) values ('yusuke@capcom.com', 6);

INSERT sfvi.USER\_TOPIC (EMAIL, TOPIC\_ID) values ('theterayama@capcom.com',7);

INSERT sfvi.USER\_TOPIC (EMAIL, TOPIC\_ID) values ('yusuke@capcom.com', 8);

INSERT sfvi.USER\_TOPIC (EMAIL, TOPIC\_ID) values ('theterayama@capcom.com', 9);

INSERT sfvi.USER\_TOPIC (EMAIL, TOPIC\_ID) values ('yoshiono@capcom.com', 10);

INSERT sfvi.USER\_TOPIC (EMAIL, TOPIC\_ID) values ('tsuchiya@capcom.com', 11);

**Output:**

A screenshot of a computer

Description automatically generated

**Part 2: Migrating old post messages (40%)**

After the old user accounts have been transferred over, the developers also want you to help them migrate the messages from their old discussion board over (see **SFVI Message Data.csv**).

Like before, this data should be imported into the new database that you are creating for them. Do note that **this data will need to be integrated together with the data in Part 1**, so you will need to create a database schema that accommodates both

sets of data, and makes the necessary linkages between both sets of data.

Task:

1. Analysis the fields and data in the csv file and create new table(s) or new fields in the existing database to store the message data. You will need to ensure that the table(s) you create are all in 3NF.
2. Write an SQL script to insert the data in the CSV file into the database.
3. A usage report detailing the total amount of time each user spent on the game

What to submit:

1. ER diagram of the database with the new table(s) (10 marks)
2. SQL script to create the new table(s) (10 marks)
3. SQL script to load CSV data into the database tables (10 marks)
4. SQL script to generate an SQL output the number of topics each user has created, and the number of posts each user has made (10 marks)

SQL output columns for usage report:

1. User email
2. Number of topics
3. Number of posts

Diagram

Description automatically generated

**SQL script to create table ‘SFVI.FORUM’**

CREATE TABLE SFVI.FORUM (

FORUM\_ID INT AUTO\_INCREMENT PRIMARY KEY,

TOPIC\_ID INT NOT NULL,

POSTER\_EMAIL VARCHAR(255) NOT NULL,

POST\_CONTENT VARCHAR(500) NOT NULL,

DTE\_CR\_POST DATETIME NOT NULL DEFAULT CURRENT\_TIMESTAMP,

FOREIGN KEY (TOPIC\_ID) REFERENCES SFVI.TOPIC(TOPIC\_ID),

FOREIGN KEY (POSTER\_EMAIL) REFERENCES SFVI.USER(EMAIL)

);

**SQL script to load the data from csv file to table ‘FORUM’**

As MySQL server is running with the --secure-file-priv option, after executing SHOW VARIABLES LIKE "secure\_file\_priv"; It tell us that we need to put out csv file in C:\ProgramData\MySQL\MySQL Server 8.0\Uploads\

LOAD DATA INFILE 'C:/ProgramData/MySQL/MySQL Server 8.0/Uploads/FORUM.csv'

INTO TABLE SFVI.FORUM

FIELDS TERMINATED BY ','

ENCLOSED BY '"'

LINES TERMINATED BY '\n'

IGNORE 1 ROWS

(forum\_id, topic\_id, poster\_email, post\_content, @dte\_cr\_post)

SET dte\_cr\_post = STR\_TO\_DATE( @dte\_cr\_post, '%d/%m/%Y %H:%i:%s');

**Alternative you can run the below SQL script to load the table ‘SFVI.FORUM’**

INSERT sfvi.forum (topic\_id, poster\_email, post\_content, dte\_cr\_post) values (1, 'takanaka@capcom.com', 'There are too many hits of armor.', STR\_TO\_DATE("29/10/2021 11:22:23", "%d/%m/%Y %H:%i:%s"));

INSERT sfvi.forum (topic\_id, poster\_email, post\_content, dte\_cr\_post) values (1, 'yoshiono@capcom.com', 'I think it is fine. I like it.', STR\_TO\_DATE("30/10/2021 19:15:11", "%d/%m/%Y %H:%i:%s"));

INSERT sfvi.forum (topic\_id, poster\_email, post\_content, dte\_cr\_post) values (1, 'yusuke@capcom.com', 'Same here.', STR\_TO\_DATE("31/10/2021 14:35:31", "%d/%m/%Y %H:%i:%s"));

INSERT sfvi.forum (topic\_id, poster\_email, post\_content, dte\_cr\_post) values (2, 'takanaka@capcom.com', 'We will make lots of money.', STR\_TO\_DATE("12/11/2022 14:12:43", "%d/%m/%Y %H:%i:%s"));

INSERT sfvi.forum (topic\_id, poster\_email, post\_content, dte\_cr\_post) values (2, 'theterayama@capcom.com', 'Lets go!', STR\_TO\_DATE("12/11/2022 16:32:53", "%d/%m/%Y %H:%i:%s"));

INSERT sfvi.forum (topic\_id, poster\_email, post\_content, dte\_cr\_post) values (3, 'tsuchiya@capcom.com', 'Let''s have a good meal together.', STR\_TO\_DATE("01/01/2023 00:00:00", "%d/%m/%Y %H:%i:%s"));

INSERT sfvi.forum (topic\_id, poster\_email, post\_content, dte\_cr\_post) values (3, 'yoshiono@capcom.com', 'See you there!', STR\_TO\_DATE("01/01/2023 00:13:34", "%d/%m/%Y %H:%i:%s"));

INSERT sfvi.forum (topic\_id, poster\_email, post\_content, dte\_cr\_post) values (4, 'yoshiono@capcom.com', 'No one likes me.', STR\_TO\_DATE("06/05/2021 07:08:34", "%d/%m/%Y %H:%i:%s"));

INSERT sfvi.forum (topic\_id, poster\_email, post\_content, dte\_cr\_post) values (5, 'takanaka@capcom.com', 'Let''s call her MANon.', STR\_TO\_DATE("22/06/2022 04:19:33", "%d/%m/%Y %H:%i:%s"));

INSERT sfvi.forum (topic\_id, poster\_email, post\_content, dte\_cr\_post) values (5, 'theterayama@capcom.com', 'Sick idea bro.', STR\_TO\_DATE("23/06/2022 06:28:53", "%d/%m/%Y %H:%i:%s"));

INSERT sfvi.forum (topic\_id, poster\_email, post\_content, dte\_cr\_post) values (6, 'yusuke@capcom.com', 'Let''s all her Marisa.', STR\_TO\_DATE("24/06/2022 03:23:13", "%d/%m/%Y %H:%i:%s"));

INSERT sfvi.forum (topic\_id, poster\_email, post\_content, dte\_cr\_post) values (6, 'tsuchiya@capcom.com', 'Why give her a girly name?', STR\_TO\_DATE("21/06/2022 01:21:32", "%d/%m/%Y %H:%i:%s"));

INSERT sfvi.forum (topic\_id, poster\_email, post\_content, dte\_cr\_post) values (7, 'theterayama@capcom.com', 'Check it out.', STR\_TO\_DATE("22/04/2021 11:11:12", "%d/%m/%Y %H:%i:%s"));

INSERT sfvi.forum (topic\_id, poster\_email, post\_content, dte\_cr\_post) values (7, 'takanaka@capcom.com', 'Nobody cares.', STR\_TO\_DATE("23/04/2021 13:28:31", "%d/%m/%Y %H:%i:%s"));

INSERT sfvi.forum (topic\_id, poster\_email, post\_content, dte\_cr\_post) values (8, 'yusuke@capcom.com', 'Is it too overpowered?', STR\_TO\_DATE("07/06/2021 05:45:45", "%d/%m/%Y %H:%i:%s"));

INSERT sfvi.forum (topic\_id, poster\_email, post\_content, dte\_cr\_post) values (8, 'yoshiono@capcom.com', 'I think it''s fine.', STR\_TO\_DATE("08/06/2021 01:23:15", "%d/%m/%Y %H:%i:%s"));

INSERT sfvi.forum (topic\_id, poster\_email, post\_content, dte\_cr\_post) values (9, 'theterayama@capcom.com', 'Please care guys.', STR\_TO\_DATE("28/02/2021 02:03:34", "%d/%m/%Y %H:%i:%s"));

INSERT sfvi.forum (topic\_id, poster\_email, post\_content, dte\_cr\_post) values (9, 'takanaka@capcom.com', 'Nobody cares.', STR\_TO\_DATE("02/03/2021 01:15:33", "%d/%m/%Y %H:%i:%s"));

INSERT sfvi.forum (topic\_id, poster\_email, post\_content, dte\_cr\_post) values (9, 'yoshiono@capcom.com', 'I care.', STR\_TO\_DATE("02/03/2021 04:12:14", "%d/%m/%Y %H:%i:%s"));

INSERT sfvi.forum (topic\_id, poster\_email, post\_content, dte\_cr\_post) values (10, 'yoshiono@capcom.com', 'Before I leave.', STR\_TO\_DATE("06/12/2020 08:18:24", "%d/%m/%Y %H:%i:%s"));

INSERT sfvi.forum (topic\_id, poster\_email, post\_content, dte\_cr\_post) values (10, 'yoshiono@capcom.com', 'Don''t ignore me.', STR\_TO\_DATE("09/12/2020 12:38:11", "%d/%m/%Y %H:%i:%s"));

INSERT sfvi.forum (topic\_id, poster\_email, post\_content, dte\_cr\_post) values (10, 'yoshiono@capcom.com', 'I''m gonna cry.', STR\_TO\_DATE("12/12/2020 23:48:41", "%d/%m/%Y %H:%i:%s"));

INSERT sfvi.forum (topic\_id, poster\_email, post\_content, dte\_cr\_post) values (11, 'tsuchiya@capcom.com', 'Will it be fun?', STR\_TO\_DATE("01/01/2023 03:19:45", "%d/%m/%Y %H:%i:%s"));

INSERT sfvi.forum (topic\_id, poster\_email, post\_content, dte\_cr\_post) values (11, 'yusuke@capcom.com', 'Yes I think it will be.', STR\_TO\_DATE("02/01/2023 17:34:23", "%d/%m/%Y %H:%i:%s"));

INSERT sfvi.forum (topic\_id, poster\_email, post\_content, dte\_cr\_post) values (11, 'theterayama@capcom.com', 'I think so too.', STR\_TO\_DATE("04/01/2023 20:13:33", "%d/%m/%Y %H:%i:%s"));

**Output:**

A screenshot of a computer

Description automatically generated with medium confidence

**SQL script to generate the number of topics each user has created, and the number of posts each user has made**

SELECT

u.email AS user\_email,

(SELECT count(topic\_id) FROM sfvi.user\_topic WHERE email = u.email) AS numbers\_of\_topics,

(SELECT count(forum\_id) FROM sfvi.forum WHERE poster\_email = u.email) AS numbers\_of\_posts

FROM

sfvi.user u

ORDER BY

email;

**Output:**

A screenshot of a computer

Description automatically generated with medium confidence

Generate the total amount of time each user spent on the game.

We have created a new additional table ‘**SFVI.LOGIN\_LOGOUT\_DETAILS’**.

**SQL script to create table ‘SFVI.LOGIN\_LOGOUT\_DETAILS’**

CREATE TABLE SFVI.LOGIN\_LOGOUT\_DETAILS (

LOGIN\_LOGOUT\_ID INT AUTO\_INCREMENT PRIMARY KEY,

EMAIL VARCHAR(255) NOT NULL,

DTE\_LOGIN DATETIME NOT NULL DEFAULT CURRENT\_TIMESTAMP,

DTE\_LOGOUT DATETIME NOT NULL

);

**SQL script to load the data from csv file to table ‘SFVI.LOGIN\_LOGOUT\_DETAILS’**

As MySQL server is running with the --secure-file-priv option, after executing SHOW VARIABLES LIKE "secure\_file\_priv"; It tell us that we need to put out csv file in C:\ProgramData\MySQL\MySQL Server 8.0\Uploads\

LOAD DATA INFILE 'C:/ProgramData/MySQL/MySQL Server 8.0/Uploads/LOGIN\_LOGOUT\_DETAILS.csv'

INTO TABLE SFVI.LOGIN\_LOGOUT\_DETAILS

FIELDS TERMINATED BY ','

ENCLOSED BY '"'

LINES TERMINATED BY '\n'

IGNORE 1 ROWS

(LOGIN\_LOGOUT\_ID, EMAIL, @DTE\_LOGIN, @DTE\_LOGOUT)

SET DTE\_LOGIN = STR\_TO\_DATE( @DTE\_LOGIN, '%d/%m/%Y %H:%i:%s'),

DTE\_LOGOUT = STR\_TO\_DATE( @DTE\_LOGOUT, '%d/%m/%Y %H:%i:%s');

**Alternative you can run the below SQL script to load the table ‘SFVI.LOGIN\_LOGOUT\_DETAILS’**

INSERT INTO SFVI.LOGIN\_LOGOUT\_DETAILS (LOGIN\_LOGOUT\_ID,EMAIL,DTE\_LOGIN,DTE\_LOGOUT) VALUES (1,'yoshiono@capcom.com',STR\_TO\_DATE("06/12/2020 08:18:24", "%d/%m/%Y %H:%i:%s"), STR\_TO\_DATE("06/12/2020 10:05:24", "%d/%m/%Y %H:%i:%s"));

INSERT INTO SFVI.LOGIN\_LOGOUT\_DETAILS (LOGIN\_LOGOUT\_ID,EMAIL,DTE\_LOGIN,DTE\_LOGOUT) VALUES (2,'yoshiono@capcom.com',STR\_TO\_DATE("09/12/2020 12:38:11", "%d/%m/%Y %H:%i:%s"), STR\_TO\_DATE("09/12/2020 15:10:45", "%d/%m/%Y %H:%i:%s"));

INSERT INTO SFVI.LOGIN\_LOGOUT\_DETAILS (LOGIN\_LOGOUT\_ID,EMAIL,DTE\_LOGIN,DTE\_LOGOUT) VALUES (3,'yoshiono@capcom.com',STR\_TO\_DATE("12/12/2020 23:48:41", "%d/%m/%Y %H:%i:%s"), STR\_TO\_DATE("13/12/2020 02:15:30", "%d/%m/%Y %H:%i:%s"));

INSERT INTO SFVI.LOGIN\_LOGOUT\_DETAILS (LOGIN\_LOGOUT\_ID,EMAIL,DTE\_LOGIN,DTE\_LOGOUT) VALUES (4,'theterayama@capcom.com',STR\_TO\_DATE("28/02/2021 02:03:34", "%d/%m/%Y %H:%i:%s"), STR\_TO\_DATE("28/02/2021 06:50:40", "%d/%m/%Y %H:%i:%s"));

INSERT INTO SFVI.LOGIN\_LOGOUT\_DETAILS (LOGIN\_LOGOUT\_ID,EMAIL,DTE\_LOGIN,DTE\_LOGOUT) VALUES (5,'takanaka@capcom.com',STR\_TO\_DATE("02/03/2021 01:15:33", "%d/%m/%Y %H:%i:%s"), STR\_TO\_DATE("02/03/2021 10:30:35", "%d/%m/%Y %H:%i:%s"));

INSERT INTO SFVI.LOGIN\_LOGOUT\_DETAILS (LOGIN\_LOGOUT\_ID,EMAIL,DTE\_LOGIN,DTE\_LOGOUT) VALUES (6,'yoshiono@capcom.com',STR\_TO\_DATE("02/03/2021 04:12:14", "%d/%m/%Y %H:%i:%s"), STR\_TO\_DATE("02/03/2021 08:55:45", "%d/%m/%Y %H:%i:%s"));

INSERT INTO SFVI.LOGIN\_LOGOUT\_DETAILS (LOGIN\_LOGOUT\_ID,EMAIL,DTE\_LOGIN,DTE\_LOGOUT) VALUES (7,'theterayama@capcom.com',STR\_TO\_DATE("22/04/2021 11:11:12", "%d/%m/%Y %H:%i:%s"), STR\_TO\_DATE("22/04/2021 14:35:25", "%d/%m/%Y %H:%i:%s"));

INSERT INTO SFVI.LOGIN\_LOGOUT\_DETAILS (LOGIN\_LOGOUT\_ID,EMAIL,DTE\_LOGIN,DTE\_LOGOUT) VALUES (8,'takanaka@capcom.com',STR\_TO\_DATE("23/04/2021 13:28:31", "%d/%m/%Y %H:%i:%s"), STR\_TO\_DATE("23/04/2021 17:15:20", "%d/%m/%Y %H:%i:%s"));

INSERT INTO SFVI.LOGIN\_LOGOUT\_DETAILS (LOGIN\_LOGOUT\_ID,EMAIL,DTE\_LOGIN,DTE\_LOGOUT) VALUES (9,'yoshiono@capcom.com',STR\_TO\_DATE("06/05/2021 07:08:34", "%d/%m/%Y %H:%i:%s"), STR\_TO\_DATE("06/05/2021 10:15:05", "%d/%m/%Y %H:%i:%s"));

INSERT INTO SFVI.LOGIN\_LOGOUT\_DETAILS (LOGIN\_LOGOUT\_ID,EMAIL,DTE\_LOGIN,DTE\_LOGOUT) VALUES (10,'yusuke@capcom.com',STR\_TO\_DATE("07/06/2021 05:45:45", "%d/%m/%Y %H:%i:%s"), STR\_TO\_DATE("07/06/2021 08:40:30", "%d/%m/%Y %H:%i:%s"));

INSERT INTO SFVI.LOGIN\_LOGOUT\_DETAILS (LOGIN\_LOGOUT\_ID,EMAIL,DTE\_LOGIN,DTE\_LOGOUT) VALUES (11,'yoshiono@capcom.com',STR\_TO\_DATE("08/06/2021 01:23:15", "%d/%m/%Y %H:%i:%s"), STR\_TO\_DATE("08/06/2021 05:45:35", "%d/%m/%Y %H:%i:%s"));

INSERT INTO SFVI.LOGIN\_LOGOUT\_DETAILS (LOGIN\_LOGOUT\_ID,EMAIL,DTE\_LOGIN,DTE\_LOGOUT) VALUES (12,'takanaka@capcom.com',STR\_TO\_DATE("29/10/2021 11:22:23", "%d/%m/%Y %H:%i:%s"), STR\_TO\_DATE("29/10/2021 13:20:30", "%d/%m/%Y %H:%i:%s"));

INSERT INTO SFVI.LOGIN\_LOGOUT\_DETAILS (LOGIN\_LOGOUT\_ID,EMAIL,DTE\_LOGIN,DTE\_LOGOUT) VALUES (13,'yoshiono@capcom.com',STR\_TO\_DATE("30/10/2021 19:15:11", "%d/%m/%Y %H:%i:%s"), STR\_TO\_DATE("30/10/2021 23:30:10", "%d/%m/%Y %H:%i:%s"));

INSERT INTO SFVI.LOGIN\_LOGOUT\_DETAILS (LOGIN\_LOGOUT\_ID,EMAIL,DTE\_LOGIN,DTE\_LOGOUT) VALUES (14,'yusuke@capcom.com',STR\_TO\_DATE("31/10/2021 14:35:31", "%d/%m/%Y %H:%i:%s"), STR\_TO\_DATE("31/10/2021 16:25:20", "%d/%m/%Y %H:%i:%s"));

INSERT INTO SFVI.LOGIN\_LOGOUT\_DETAILS (LOGIN\_LOGOUT\_ID,EMAIL,DTE\_LOGIN,DTE\_LOGOUT) VALUES (15,'tsuchiya@capcom.com',STR\_TO\_DATE("21/06/2022 01:21:32", "%d/%m/%Y %H:%i:%s"), STR\_TO\_DATE("21/06/2022 05:40:20", "%d/%m/%Y %H:%i:%s"));

INSERT INTO SFVI.LOGIN\_LOGOUT\_DETAILS (LOGIN\_LOGOUT\_ID,EMAIL,DTE\_LOGIN,DTE\_LOGOUT) VALUES (16,'takanaka@capcom.com',STR\_TO\_DATE("22/06/2022 04:19:33", "%d/%m/%Y %H:%i:%s"), STR\_TO\_DATE("22/06/2022 06:40:15", "%d/%m/%Y %H:%i:%s"));

INSERT INTO SFVI.LOGIN\_LOGOUT\_DETAILS (LOGIN\_LOGOUT\_ID,EMAIL,DTE\_LOGIN,DTE\_LOGOUT) VALUES (17,'theterayama@capcom.com',STR\_TO\_DATE("23/06/2022 06:28:53", "%d/%m/%Y %H:%i:%s"), STR\_TO\_DATE("23/06/2022 08:55:10", "%d/%m/%Y %H:%i:%s"));

INSERT INTO SFVI.LOGIN\_LOGOUT\_DETAILS (LOGIN\_LOGOUT\_ID,EMAIL,DTE\_LOGIN,DTE\_LOGOUT) VALUES (18,'yusuke@capcom.com',STR\_TO\_DATE("24/06/2022 03:23:13", "%d/%m/%Y %H:%i:%s"), STR\_TO\_DATE("24/06/2022 04:45:15", "%d/%m/%Y %H:%i:%s"));

INSERT INTO SFVI.LOGIN\_LOGOUT\_DETAILS (LOGIN\_LOGOUT\_ID,EMAIL,DTE\_LOGIN,DTE\_LOGOUT) VALUES (19,'takanaka@capcom.com',STR\_TO\_DATE("12/11/2022 14:12:43", "%d/%m/%Y %H:%i:%s"), STR\_TO\_DATE("12/11/2022 15:30:23", "%d/%m/%Y %H:%i:%s"));

INSERT INTO SFVI.LOGIN\_LOGOUT\_DETAILS (LOGIN\_LOGOUT\_ID,EMAIL,DTE\_LOGIN,DTE\_LOGOUT) VALUES (20,'theterayama@capcom.com',STR\_TO\_DATE("12/11/2022 16:32:53", "%d/%m/%Y %H:%i:%s"), STR\_TO\_DATE("12/11/2022 18:40:30", "%d/%m/%Y %H:%i:%s"));

INSERT INTO SFVI.LOGIN\_LOGOUT\_DETAILS (LOGIN\_LOGOUT\_ID,EMAIL,DTE\_LOGIN,DTE\_LOGOUT) VALUES (21,'tsuchiya@capcom.com',STR\_TO\_DATE("01/01/2023 00:00:00", "%d/%m/%Y %H:%i:%s"), STR\_TO\_DATE("01/01/2023 04:22:40", "%d/%m/%Y %H:%i:%s"));

INSERT INTO SFVI.LOGIN\_LOGOUT\_DETAILS (LOGIN\_LOGOUT\_ID,EMAIL,DTE\_LOGIN,DTE\_LOGOUT) VALUES (22,'yoshiono@capcom.com',STR\_TO\_DATE("01/01/2023 00:13:34", "%d/%m/%Y %H:%i:%s"), STR\_TO\_DATE("01/01/2023 03:35:50", "%d/%m/%Y %H:%i:%s"));

INSERT INTO SFVI.LOGIN\_LOGOUT\_DETAILS (LOGIN\_LOGOUT\_ID,EMAIL,DTE\_LOGIN,DTE\_LOGOUT) VALUES (23,'tsuchiya@capcom.com',STR\_TO\_DATE("01/01/2023 03:19:45", "%d/%m/%Y %H:%i:%s"), STR\_TO\_DATE("01/01/2023 06:20:20", "%d/%m/%Y %H:%i:%s"));

INSERT INTO SFVI.LOGIN\_LOGOUT\_DETAILS (LOGIN\_LOGOUT\_ID,EMAIL,DTE\_LOGIN,DTE\_LOGOUT) VALUES (24,'yusuke@capcom.com',STR\_TO\_DATE("02/01/2023 17:34:23", "%d/%m/%Y %H:%i:%s"), STR\_TO\_DATE("02/01/2023 20:25:15", "%d/%m/%Y %H:%i:%s"));

INSERT INTO SFVI.LOGIN\_LOGOUT\_DETAILS (LOGIN\_LOGOUT\_ID,EMAIL,DTE\_LOGIN,DTE\_LOGOUT) VALUES (25,'theterayama@capcom.com',STR\_TO\_DATE("04/01/2023 20:13:33", "%d/%m/%Y %H:%i:%s"), STR\_TO\_DATE("04/01/2023 23:30:10", "%d/%m/%Y %H:%i:%s"));

**Output:**

A screenshot of a computer

Description automatically generated with medium confidence

**SQL script to generate the total amount of time each user spent on the game.**

SELECT email, sum(hours) total\_hours FROM

(

SELECT

email, TIMESTAMPDIFF(hour, dte\_login, dte\_logout)Hours

FROM

SFVI.LOGIN\_LOGOUT\_DETAILS

) a

GROUP BY

email;

Output:

A screenshot of a computer

Description automatically generated with medium confidence

**Part 3: New features (30%)**

After the data has been migrated, the developers would also like it to have some new features. Do note that the additions here **will add onto the existing database schema that you have in Part 1 and Part 2**.

Tasks:

1. The developers would like to allow board users to subscribe to any topic that they want. A user can subscribe to as many topics as they want. Modify existing fields in the database or create new table(s) to accommodate this feature.
2. They would also like to be able to track user activity within a given time period. To test whether your database is able to do this, they want you to provide an SQL query that will show the number of posts a user has made in Q4 of 2022.

What to submit:

1. ER diagram of the database with the new field(s) / table(s) and SQL script to modify the database schema accordingly. (15 marks)
2. SQL query showing the number of posts a user has made between October 2022 to December 2022. (15 marks)

Diagram

Description automatically generated

**SQL script to create table ‘SFVI.SUBSCRIPTION’**

CREATE TABLE SFVI.USER\_SUBSCRIPTION (

EMAIL VARCHAR(255),

SUBSCRIBE\_TOPIC\_ID INT,

PRIMARY KEY (EMAIL, SUBSCRIBE\_TOPIC\_ID),

FOREIGN KEY (EMAIL) REFERENCES SFVI.USER(EMAIL),

FOREIGN KEY (SUBSCRIBE\_TOPIC\_ID) REFERENCES SFVI.TOPIC(TOPIC\_ID)

);

**SQL script to load the data from csv file to table USER\_SUBSCRIPTION**

As MySQL server is running with the --secure-file-priv option, after executing SHOW VARIABLES LIKE "secure\_file\_priv"; It tell us that we need to put out csv file in C:\ProgramData\MySQL\MySQL Server 8.0\Uploads\

LOAD DATA INFILE 'C:/ProgramData/MySQL/MySQL Server 8.0/Uploads/USER\_SUBSCRIPTION.csv'

INTO TABLE SFVI.USER\_SUBSCRIPTION

FIELDS TERMINATED BY ','

ENCLOSED BY '"'

LINES TERMINATED BY '\n'

IGNORE 1 ROWS

(EMAIL, SUBSCRIBE\_TOPIC\_ID);

**Alternative you can run the below SQL script to load the table ‘SFVI.USER\_SUBSCRIPTION’**

INSERT INTO sfvi.user\_subscription (EMAIL, SUBSCRIBE\_TOPIC\_ID) VALUES ('takanaka@capcom.com',1);

INSERT INTO sfvi.user\_subscription (EMAIL, SUBSCRIBE\_TOPIC\_ID) VALUES ('takanaka@capcom.com',2);

INSERT INTO sfvi.user\_subscription (EMAIL, SUBSCRIBE\_TOPIC\_ID) VALUES ('theterayama@capcom.com',2);

INSERT INTO sfvi.user\_subscription (EMAIL, SUBSCRIBE\_TOPIC\_ID) VALUES ('takanaka@capcom.com',3);

INSERT INTO sfvi.user\_subscription (EMAIL, SUBSCRIBE\_TOPIC\_ID) VALUES ('theterayama@capcom.com',3);

INSERT INTO sfvi.user\_subscription (EMAIL, SUBSCRIBE\_TOPIC\_ID) VALUES ('tsuchiya@capcom.com',3);

INSERT INTO sfvi.user\_subscription (EMAIL, SUBSCRIBE\_TOPIC\_ID) VALUES ('takanaka@capcom.com',4);

INSERT INTO sfvi.user\_subscription (EMAIL, SUBSCRIBE\_TOPIC\_ID) VALUES ('theterayama@capcom.com',4);

INSERT INTO sfvi.user\_subscription (EMAIL, SUBSCRIBE\_TOPIC\_ID) VALUES ('tsuchiya@capcom.com',4);

INSERT INTO sfvi.user\_subscription (EMAIL, SUBSCRIBE\_TOPIC\_ID) VALUES ('yoshiono@capcom.com',4);

INSERT INTO sfvi.user\_subscription (EMAIL, SUBSCRIBE\_TOPIC\_ID) VALUES ('takanaka@capcom.com',5);

INSERT INTO sfvi.user\_subscription (EMAIL, SUBSCRIBE\_TOPIC\_ID) VALUES ('tsuchiya@capcom.com',6);

INSERT INTO sfvi.user\_subscription (EMAIL, SUBSCRIBE\_TOPIC\_ID) VALUES ('yusuke@capcom.com',6);

INSERT INTO sfvi.user\_subscription (EMAIL, SUBSCRIBE\_TOPIC\_ID) VALUES ('theterayama@capcom.com',7);

INSERT INTO sfvi.user\_subscription (EMAIL, SUBSCRIBE\_TOPIC\_ID) VALUES ('tsuchiya@capcom.com',7);

INSERT INTO sfvi.user\_subscription (EMAIL, SUBSCRIBE\_TOPIC\_ID) VALUES ('yoshiono@capcom.com',7);

INSERT INTO sfvi.user\_subscription (EMAIL, SUBSCRIBE\_TOPIC\_ID) VALUES ('yusuke@capcom.com',8);

INSERT INTO sfvi.user\_subscription (EMAIL, SUBSCRIBE\_TOPIC\_ID) VALUES ('theterayama@capcom.com',9);

INSERT INTO sfvi.user\_subscription (EMAIL, SUBSCRIBE\_TOPIC\_ID) VALUES ('tsuchiya@capcom.com',9);

INSERT INTO sfvi.user\_subscription (EMAIL, SUBSCRIBE\_TOPIC\_ID) VALUES ('yoshiono@capcom.com',10);

INSERT INTO sfvi.user\_subscription (EMAIL, SUBSCRIBE\_TOPIC\_ID) VALUES ('takanaka@capcom.com',11);

INSERT INTO sfvi.user\_subscription (EMAIL, SUBSCRIBE\_TOPIC\_ID) VALUES ('theterayama@capcom.com',11);

INSERT INTO sfvi.user\_subscription (EMAIL, SUBSCRIBE\_TOPIC\_ID) VALUES ('tsuchiya@capcom.com',11);

INSERT INTO sfvi.user\_subscription (EMAIL, SUBSCRIBE\_TOPIC\_ID) VALUES ('yoshiono@capcom.com',11);

INSERT INTO sfvi.user\_subscription (EMAIL, SUBSCRIBE\_TOPIC\_ID) VALUES ('yusuke@capcom.com',11);

**Output:**

A screenshot of a computer

Description automatically generated with medium confidence

**SQL script to generate the number of posts users made quarterly.**

SELECT

poster\_email, concat(YEAR(dte\_cr\_post) ,'-Q', QUARTER(dte\_cr\_post)) AS quarter\_year, count(\*) AS no\_of\_posts

FROM

sfvi.forum

GROUP BY

poster\_email, quarter\_year

ORDER BY

quarter\_year, poster\_email;

**Output:**

A screenshot of a computer

Description automatically generated with medium confidence