Project Handin

github repo: https://github.students.cs.ubc.ca/CPSC304-2023W-T2/project_g0x2s_j2s2z_x4j6p

a.Project Description

This project aims to develop a relational database management system for a personality test website, centered on the domain of psychology. The main feature of this website is to offer users the ability to discover their Myers-Briggs Type Indicator (MBTI) personality through a concise test. The MBTI is a widely recognized psychological tool that categorizes personality types based on four dichotomies: Introversion vs. Extraversion, Sensing vs. Intuition, Thinking vs. Feeling, and Judging vs. Perceiving.

Upon completion of the test, the system will analyze the responses to ascertain the user's MBTI type, such as INTJ, ENFP, ISTJ, etc. The database will store detailed profiles for each of the 16 possible MBTI personality types, including their characteristics, strengths, weaknesses, and potential areas for personal growth.

The website will then present customized content and recommendations tailored to the user's specific personality type. This could include advice on career paths, relationship guidance, personal development strategies in the form of books, videos and articles.

b.Schema Differences

Changes made:

- removed questionDescription because we keep that on the frontend.

- remove MbtiGender from MBTi_type table since login user table already keep gender

- change all ID from INT to VARCHAR as we find some issue with ORACLE server where if a INT will auto convert String. So we decide to change the data type to resolve this issue.

- report and test entity are combine and break down to output2-4 table

- video ,article, book entitry are break down into two table My... and IsRecommended... table

c.Schema and Proof of data in the table

i.

```
INSERT INTO MBTI_Type VALUES ('ISTJ', 'Number A');
INSERT INTO MBTI_Type VALUES ('ISTP', 'Number B');
INSERT INTO MBTI_Type VALUES ('ISFJ', 'Number C');
INSERT INTO MBTI_Type VALUES ('ISFP', 'Number D');
INSERT INTO MBTI_Type VALUES ('INTJ', 'Number E');
INSERT INTO MBTI_Type VALUES ('INTP', 'Number F');
INSERT INTO MBTI_Type VALUES ('INFJ', 'Number G');
INSERT INTO MBTI_Type VALUES ('INFP', 'Number H');
INSERT INTO MBTI_Type VALUES ('ESTJ', 'Number I');
INSERT INTO MBTI_Type VALUES ('ESTP', 'Number J');
INSERT INTO MBTI_Type VALUES ('ESFJ', 'Number K');
INSERT INTO MBTI_Type VALUES ('ESFP', 'Number L');
INSERT INTO MBTI_Type VALUES ('ENTJ', 'Number M');
INSERT INTO MBTI_Type VALUES ('ENTP', 'Number N');
INSERT INTO MBTI_Type VALUES ('ENFJ', 'Number O');
INSERT INTO MBTI_Type VALUES ('ENFP', 'Number P');
```

```
SQL> select mbtiName from Mbti_Type;

MBTI
----
ENFJ
ENFP
ENTJ
ENTP
ESFJ
ESFP
ESTJ
ESTP
INFJ
INFP
INTJ

MBTI
----
INTP
ISFJ
ISFP
ISTJ
ISTP

16 rows selected.
```

```
INSERT INTO MyVideo VALUES ('http://example.com/video/istj', 'Motivational', 'ISTJ Inspiration');
INSERT INTO MyVideo VALUES ('http://example.com/video/istp', 'Motivational', 'ISTP Inspiration');
INSERT INTO MyVideo VALUES ('http://example.com/video/isfj', 'Motivational', 'ISFJ Inspiration');
INSERT INTO MyVideo VALUES ('http://example.com/video/isfp', 'Motivational', 'ISFP Inspiration');
INSERT INTO MyVideo VALUES ('http://example.com/video/intj', 'Motivational', 'INTJ Inspiration');
INSERT INTO MyVideo VALUES ('http://example.com/video/intp', 'Motivational', 'INTP Inspiration');
INSERT INTO MyVideo VALUES ('http://example.com/video/infj', 'Motivational', 'INFJ Inspiration');
INSERT INTO MyVideo VALUES ('http://example.com/video/infp', 'Motivational', 'INFP Inspiration');
INSERT INTO MyVideo VALUES ('http://example.com/video/estj', 'Motivational', 'ESTJ Inspiration');
INSERT INTO MyVideo VALUES ('http://example.com/video/estp', 'Motivational', 'ESTP Inspiration');
INSERT INTO MyVideo VALUES ('http://example.com/video/esfj', 'Motivational', 'ESFJ Inspiration');
INSERT INTO MyVideo VALUES ('http://example.com/video/esfp', 'Motivational', 'ESFP Inspiration');
INSERT INTO MyVideo VALUES ('http://example.com/video/entj', 'Motivational', 'ENTJ Inspiration');
INSERT INTO MyVideo VALUES ('http://example.com/video/entp', 'Motivational', 'ENTP Inspiration');
INSERT INTO MyVideo VALUES ('http://example.com/video/enfj', 'Motivational', 'ENFJ Inspiration');
INSERT INTO MyVideo VALUES ('http://example.com/video/enfp', 'Motivational', 'ENFP Inspiration');
INSERT INTO MyVideo VALUES ('https://www.imdb.com/title/tt1895587/', 'Drama', 'Spotlight');
INSERT INTO MyVideo VALUES ('https://www.imdb.com/title/tt2980516/', 'Biographical', 'The Theory of Everything');
INSERT INTO MyVideo VALUES ('https://www.imdb.com/title/tt0359950/', 'Adventure', 'The Secret Life of Walter Mitty');
INSERT INTO MyVideo VALUES ('https://www.imdb.com/title/tt2543164/', 'Science', 'Arrival');
INSERT INTO MyVideo VALUES ('https://www.imdb.com/title/tt2911666/', 'Action', 'John Wick');
INSERT INTO MyVideo VALUES ('https://www.imdb.com/title/tt3783958/', 'Musical', 'La La Land');
INSERT INTO MyVideo VALUES ('https://www.imdb.com/title/tt1605783/', 'Fantasy', 'Midnight in Paris');
INSERT INTO MyVideo VALUES ('https://www.imdb.com/title/tt0470752/', 'Science Fiction', 'Ex Machina');
INSERT INTO MyVideo VALUES ('https://www.imdb.com/title/tt1392190/', 'Action', 'Mad Max: Fury Road');
INSERT INTO MyVideo VALUES ('https://www.imdb.com/title/tt1981677/', 'Comedy', 'Pitch Perfect');
INSERT INTO MyVideo VALUES ('https://www.imdb.com/title/tt2278388/', 'Comedy', 'The Grand Budapest Hotel');
INSERT INTO MyVideo VALUES ('https://www.imdb.com/title/tt0993846/', 'Biographical', 'The Wolf of Wall Street');
INSERT INTO MyVideo VALUES ('https://www.imdb.com/title/tt3659388/', 'Science Fiction', 'The Martian');
INSERT INTO MyVideo VALUES ('https://www.imdb.com/title/tt2380307/', 'Animated', 'Coco');
INSERT INTO MyVideo VALUES ('https://www.imdb.com/title/tt1020072/', 'Historical', 'Selma');
INSERT INTO MyVideo VALUES ('https://www.imdb.com/title/tt1285016/', 'Biographical', 'The Social Network');
```

```
SQL> select count(videoLink) from Myvideo;

COUNT(VIDEOLINK)
----------------
              32
```

```
INSERT INTO MyBook VALUES ('https://a.co/d/hak3RIa', 'The Courage to Be Disliked', ' Ichiro Kishimi , Fumitake Koga ');
INSERT INTO MyBook VALUES ('http://amzn.to/2ayQC63', 'Man's Search for Meaning', 'Viktor Frankl');
INSERT INTO MyBook VALUES ('http://amzn.to/2ayQzXI', 'The 48 Laws of Power', 'Robert Greene');
INSERT INTO MyBook VALUES ('http://amzn.to/2apDoCL', 'Predictably Irrational', 'Dan Ariely');
INSERT INTO MyBook VALUES ('http://amzn.to/2amlftS', 'Self-Promotion for Introverts: The Quiet Guide of Getting Ahead', 'Nancy Ancowitz');
INSERT INTO MyBook VALUES ('http://amzn.to/2amil4T', 'Emotional Intelligence: Why It Can Matter More Than IQ', 'Daniel Goleman');
INSERT INTO MyBook VALUES ('http://amzn.to/2apEn5H', 'How to Win Friends & Influence People', 'Dale Carnegie');
INSERT INTO MyBook VALUES ('http://amzn.to/2aXoGb4', 'Authentic Happiness', 'Martin Seligman');
INSERT INTO MyBook VALUES ('http://amzn.to/2ay7sf9', 'Flow: The Psychology of Optimal Experience', 'Mihaly Csikszentmihalyi');
INSERT INTO MyBook VALUES ('http://amzn.to/2ay7YK3', 'Influence: The Psychology of Persuasion', 'Robert Cialdini');
INSERT INTO MyBook VALUES ('http://amzn.to/2ammN79', 'The 4-Hour Workweek', 'Tim Ferris');
INSERT INTO MyBook VALUES ('http://amzn.to/2amn6Ps', 'How to Stop Worrying and Start Living', 'Dale Carnegie');
INSERT INTO MyBook VALUES ('http://amzn.to/2azbCXf', 'What Color is Your Parachute?', 'Richard Bolles');
INSERT INTO MyBook VALUES ('http://amzn.to/2a8UWyO', 'The 7 Habits of Highly Effective People', 'Stephen Covey');
INSERT INTO MyBook VALUES ('http://example.com/book', 'Example book', 'Jane Doe');
INSERT INTO MyBook VALUES ('http://example.com/book/infp', 'INFP: The Dreamer', 'Jane Doe');
INSERT INTO MyBook VALUES ('http://example.com/book/infj', 'INFJ: The Advocate', 'John Smith');
INSERT INTO MyBook VALUES ('http://example.com/book/intj', 'INTJ: The Architect', 'Alex Johnson');
INSERT INTO MyBook VALUES ('http://example.com/book/intp', 'INTP: The Thinker', 'Sam Lee');
INSERT INTO MyBook VALUES ('http://example.com/book/isfp', 'ISFP: The Artist', 'Chris Wong');
INSERT INTO MyBook VALUES ('http://example.com/book/isfj', 'ISFJ: The Defender', 'Morgan Taylor');
INSERT INTO MyBook VALUES ('http://example.com/book/istp', 'ISTP: The Craftsman', 'Jordan Casey');
INSERT INTO MyBook VALUES ('http://example.com/book/istj', 'ISTJ: The Inspector', 'Taylor Morgan');
INSERT INTO MyBook VALUES ('http://example.com/book/enfp', 'ENFP: The Champion', 'Jamie Reed');
INSERT INTO MyBook VALUES ('http://example.com/book/enfj', 'ENFJ: The Giver', 'Casey Jordan');
INSERT INTO MyBook VALUES ('http://example.com/book/entj', 'ENTJ: The Commander', 'Jordan Alex');
INSERT INTO MyBook VALUES ('http://example.com/book/entp', 'ENTP: The Debater', 'Alexis King');
INSERT INTO MyBook VALUES ('http://example.com/book/esfp', 'ESFP: The Performer', 'Dylan Carter');
INSERT INTO MyBook VALUES ('http://example.com/book/esfj', 'ESFJ: The Caregiver', 'Charlie Quinn');
INSERT INTO MyBook VALUES ('http://example.com/book/estp', 'ESTP: The Dynamo', 'Quinn Charlie');
INSERT INTO MyBook VALUES ('http://example.com/book/estj', 'ESTJ: The Director', 'Carter Dylan');
```

```
SQL> select count(bookURL) from MyBook;

COUNT(BOOKURL)
--------------
            31
```

```
INSERT INTO MyArticle VALUES ('http://example.com/article/infp', 'Understanding the INFP', 'John Smith', 'INFPs are...');
INSERT INTO MyArticle VALUES ('http://example.com/article/infj', 'Exploring the INFJ Personality', 'Jane Doe', 'INFJs are...');
INSERT INTO MyArticle VALUES ('http://example.com/article/intj', 'The World of the INTJ', 'Alex Johnson', 'INTJs are...');
INSERT INTO MyArticle VALUES ('http://example.com/article/intp', 'Inside the Mind of an INTP', 'Sam Lee', 'INTPs are...');
INSERT INTO MyArticle VALUES ('http://example.com/article/isfp', 'ISFP: The Artistic Spirit', 'Chris Wong', 'ISFPs are...');
INSERT INTO MyArticle VALUES ('http://example.com/article/isfj', 'The ISFJ Personality: A Closer Look', 'Morgan Taylor', 'ISFJs are...');
INSERT INTO MyArticle VALUES ('http://example.com/article/istp', 'ISTP: Understanding the Mechanic', 'Jordan Casey', 'ISTPs are...');
INSERT INTO MyArticle VALUES ('http://example.com/article/istj', 'The ISTJ Type: An Overview', 'Taylor Morgan', 'ISTJs are...');
INSERT INTO MyArticle VALUES ('http://example.com/article/enfp', 'ENFP: The Inspirational Motivator', 'Jamie Reed', 'ENFPs are...');
INSERT INTO MyArticle VALUES ('http://example.com/article/enfj', 'Decoding the ENFJ Personality', 'Casey Jordan', 'ENFJs are...');
INSERT INTO MyArticle VALUES ('http://example.com/article/entj', 'The ENTJ Leader', 'Jordan Alex', 'ENTJs are...');
INSERT INTO MyArticle VALUES ('http://example.com/article/entp', 'The Visionary ENTP', 'Alexis King', 'ENTPs are...');
INSERT INTO MyArticle VALUES ('http://example.com/article/esfp', 'ESFP: The Life of the Party', 'Dylan Carter', 'ESFPs are...');
INSERT INTO MyArticle VALUES ('http://example.com/article/esfj', 'The Care and Feeding of the ESFJ', 'Charlie Quinn', 'ESFJs are...');
INSERT INTO MyArticle VALUES ('http://example.com/article/estp', 'The Dynamic ESTP', 'Quinn Charlie', 'ESTPs are...');
INSERT INTO MyArticle VALUES ('http://example.com/article/estj', 'The ESTJ at Work and Play', 'Carter Dylan', 'ESTJs are...');
```

```
SQL> select count(articleURL) from MyArticle;

COUNT(ARTICLEURL)
-----------------
               16
```

```
INSERT INTO IsRecommendedVideo VALUES ('ISTJ', 'https://www.imdb.com/title/tt1895587/');
INSERT INTO IsRecommendedVideo VALUES ('ISFJ', 'https://www.imdb.com/title/tt2980516/');
INSERT INTO IsRecommendedVideo VALUES ('INFJ', 'https://www.imdb.com/title/tt0359950/');
INSERT INTO IsRecommendedVideo VALUES ('INTJ', 'https://www.imdb.com/title/tt2543164/');
INSERT INTO IsRecommendedVideo VALUES ('ISTP', 'https://www.imdb.com/title/tt2911666/');
INSERT INTO IsRecommendedVideo VALUES ('ISFP', 'https://www.imdb.com/title/tt3783958/');
INSERT INTO IsRecommendedVideo VALUES ('INFP', 'https://www.imdb.com/title/tt1605783/');
INSERT INTO IsRecommendedVideo VALUES ('INTP', 'https://www.imdb.com/title/tt0470752/');
INSERT INTO IsRecommendedVideo VALUES ('ESTP', 'https://www.imdb.com/title/tt1392190/');
INSERT INTO IsRecommendedVideo VALUES ('ESFP', 'https://www.imdb.com/title/tt1981677/');
INSERT INTO IsRecommendedVideo VALUES ('ENFP', 'https://www.imdb.com/title/tt2278388/');
INSERT INTO IsRecommendedVideo VALUES ('ENTP', 'https://www.imdb.com/title/tt0993846/');
INSERT INTO IsRecommendedVideo VALUES ('ESTJ', 'https://www.imdb.com/title/tt3659388/');
INSERT INTO IsRecommendedVideo VALUES ('ESFJ', 'https://www.imdb.com/title/tt2380307/');
INSERT INTO IsRecommendedVideo VALUES ('ENFJ', 'https://www.imdb.com/title/tt1020072/');
INSERT INTO IsRecommendedVideo VALUES ('ENTJ', 'https://www.imdb.com/title/tt1285016/');
INSERT INTO IsRecommendedVideo VALUES ('INFP', 'http://example.com/video/infp');
INSERT INTO IsRecommendedVideo VALUES ('INFJ', 'http://example.com/video/infj');
INSERT INTO IsRecommendedVideo VALUES ('INTJ', 'http://example.com/video/intj');
INSERT INTO IsRecommendedVideo VALUES ('INTP', 'http://example.com/video/intp');
INSERT INTO IsRecommendedVideo VALUES ('ISFP', 'http://example.com/video/isfp');
INSERT INTO IsRecommendedVideo VALUES ('ISFJ', 'http://example.com/video/isfj');
INSERT INTO IsRecommendedVideo VALUES ('ISTP', 'http://example.com/video/istp');
INSERT INTO IsRecommendedVideo VALUES ('ISTJ', 'http://example.com/video/istj');
INSERT INTO IsRecommendedVideo VALUES ('ENFP', 'http://example.com/video/enfp');
INSERT INTO IsRecommendedVideo VALUES ('ENFJ', 'http://example.com/video/enfj');
INSERT INTO IsRecommendedVideo VALUES ('ENTJ', 'http://example.com/video/entj');
INSERT INTO IsRecommendedVideo VALUES ('ENTP', 'http://example.com/video/entp');
INSERT INTO IsRecommendedVideo VALUES ('ESFP', 'http://example.com/video/esfp');
INSERT INTO IsRecommendedVideo VALUES ('ESFJ', 'http://example.com/video/esfj');
INSERT INTO IsRecommendedVideo VALUES ('ESTP', 'http://example.com/video/estp');
INSERT INTO IsRecommendedVideo VALUES ('ESTJ', 'http://example.com/video/estj');
```

```
SQL> select count(*) from IsRecommendedVideo;

  COUNT(*)
----------
        32
```

```
INSERT INTO IsRecommendedBook VALUES ('INFP', 'https://a.co/d/hak3RIa');
INSERT INTO IsRecommendedBook VALUES ('INFJ', 'http://amzn.to/2ayQC63');
INSERT INTO IsRecommendedBook VALUES ('INTJ', 'http://amzn.to/2ayQzXI');
INSERT INTO IsRecommendedBook VALUES ('INTP', 'http://amzn.to/2apDoCL');
INSERT INTO IsRecommendedBook VALUES ('ISFJ', 'http://amzn.to/2amlftS');
INSERT INTO IsRecommendedBook VALUES ('ISTJ', 'http://amzn.to/2amll4T');
INSERT INTO IsRecommendedBook VALUES ('ISTP', 'http://amzn.to/2apEn5H');
INSERT INTO IsRecommendedBook VALUES ('ISFP', 'http://amzn.to/2amlftS');
INSERT INTO IsRecommendedBook VALUES ('ENFJ', 'http://amzn.to/2aXo0b4');
INSERT INTO IsRecommendedBook VALUES ('ENFP', 'http://amzn.to/2ay7sf9');
INSERT INTO IsRecommendedBook VALUES ('ENTJ', 'http://amzn.to/2ay7YK3');
INSERT INTO IsRecommendedBook VALUES ('ENTP', 'http://amzn.to/2ammN79');
INSERT INTO IsRecommendedBook VALUES ('ESFJ', 'http://amzn.to/2amn6Ps');
INSERT INTO IsRecommendedBook VALUES ('ESFP', 'http://amzn.to/2azbCXf');
INSERT INTO IsRecommendedBook VALUES ('ESTJ', 'http://amzn.to/2aBUWyO');
INSERT INTO IsRecommendedBook VALUES ('ESTP', 'http://amzn.to/2azbCXf');
INSERT INTO IsRecommendedBook VALUES ('INFP', 'http://example.com/book');
INSERT INTO IsRecommendedBook VALUES ('INFJ', 'http://example.com/book');
INSERT INTO IsRecommendedBook VALUES ('INTJ', 'http://example.com/book');
INSERT INTO IsRecommendedBook VALUES ('INTP', 'http://example.com/book');
INSERT INTO IsRecommendedBook VALUES ('ISFP', 'http://example.com/book');
INSERT INTO IsRecommendedBook VALUES ('ISFJ', 'http://example.com/book');
INSERT INTO IsRecommendedBook VALUES ('ISTP', 'http://example.com/book');
INSERT INTO IsRecommendedBook VALUES ('ISTJ', 'http://example.com/book');
INSERT INTO IsRecommendedBook VALUES ('ENFP', 'http://example.com/book');
INSERT INTO IsRecommendedBook VALUES ('ENFJ', 'http://example.com/book');
INSERT INTO IsRecommendedBook VALUES ('ENTJ', 'http://example.com/book');
INSERT INTO IsRecommendedBook VALUES ('ENTP', 'http://example.com/book');
INSERT INTO IsRecommendedBook VALUES ('ESFP', 'http://example.com/book');
INSERT INTO IsRecommendedBook VALUES ('ESFJ', 'http://example.com/book');
INSERT INTO IsRecommendedBook VALUES ('ESTP', 'http://example.com/book');
INSERT INTO IsRecommendedBook VALUES ('ESTJ', 'http://example.com/book');
```

```
SQL> select count(*) from IsRecommendedBook;

  COUNT(*)
----------
        32
```

```
INSERT INTO IsRecommendedArticle VALUES ('INFP', 'http://example.com/article/infp');
INSERT INTO IsRecommendedArticle VALUES ('INFJ', 'http://example.com/article/infj');
INSERT INTO IsRecommendedArticle VALUES ('INTJ', 'http://example.com/article/intj');
INSERT INTO IsRecommendedArticle VALUES ('INTP', 'http://example.com/article/intp');
INSERT INTO IsRecommendedArticle VALUES ('ISFP', 'http://example.com/article/isfp');
INSERT INTO IsRecommendedArticle VALUES ('ISFJ', 'http://example.com/article/isfj');
INSERT INTO IsRecommendedArticle VALUES ('ISTP', 'http://example.com/article/istp');
INSERT INTO IsRecommendedArticle VALUES ('ISTJ', 'http://example.com/article/istj');
INSERT INTO IsRecommendedArticle VALUES ('ENFP', 'http://example.com/article/enfp');
INSERT INTO IsRecommendedArticle VALUES ('ENFJ', 'http://example.com/article/enfj');
INSERT INTO IsRecommendedArticle VALUES ('ENTJ', 'http://example.com/article/entj');
INSERT INTO IsRecommendedArticle VALUES ('ENTP', 'http://example.com/article/entp');
INSERT INTO IsRecommendedArticle VALUES ('ESFP', 'http://example.com/article/esfp');
INSERT INTO IsRecommendedArticle VALUES ('ESFJ', 'http://example.com/article/esfj');
INSERT INTO IsRecommendedArticle VALUES ('ESTP', 'http://example.com/article/estp');
INSERT INTO IsRecommendedArticle VALUES ('ESTJ', 'http://example.com/article/estj');
```

```
SQL> select count(*) from IsRecommendedArticle;

  COUNT(*)
----------
        16
```

```
INSERT INTO Outputs_4 VALUES ('ISTJ', 0, 100, 100, 100);
INSERT INTO Outputs_4 VALUES ('ISTP', 0, 100, 100, 0);
INSERT INTO Outputs_4 VALUES ('ISFJ', 0, 100, 0, 4100);
INSERT INTO Outputs_4 VALUES ('ISFP', 0, 100, 0, 0);
INSERT INTO Outputs_4 VALUES ('INTJ', 0, 0, 100, 100);
INSERT INTO Outputs_4 VALUES ('INTP', 0, 0, 100, 0);
INSERT INTO Outputs_4 VALUES ('INFJ', 0, 0, 0, 100);
INSERT INTO Outputs_4 VALUES ('INFP', 0, 0, 0, 0);
INSERT INTO Outputs_4 VALUES ('ESTJ', 100, 100, 100, 100);
INSERT INTO Outputs_4 VALUES ('ESTP', 100, 100, 100, 0);
INSERT INTO Outputs_4 VALUES ('ESFJ', 100, 100, 0, 100);
INSERT INTO Outputs_4 VALUES ('ESFP', 100, 100, 0, 0);
INSERT INTO Outputs_4 VALUES ('ENTJ', 100, 0, 100, 100);
INSERT INTO Outputs_4 VALUES ('ENTP', 100, 0, 100, 0);
INSERT INTO Outputs_4 VALUES ('ENFJ', 100, 0, 0, 100);
INSERT INTO Outputs_4 VALUES ('ENFP', 100, 0, 0, 0);
```
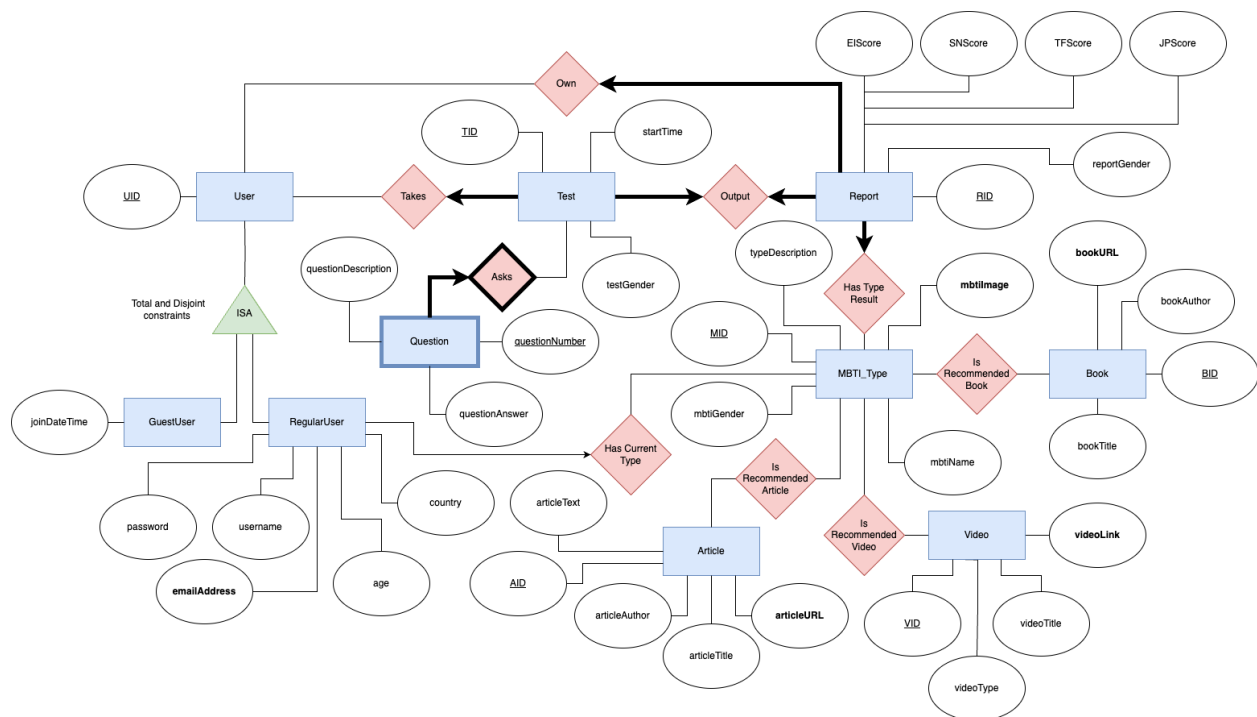
```
SQL> select count(*) from Outputs_4;

  COUNT(*)
----------
        16
```

ii.


```
MyUser(username)
MBTI_Type(mbtiName, mbtiDescription)
LoginUser(username, mbtiName, password, emailAddress, age, co
```

```
untry, userGender)
Outputs_2(TID, startDateTime, username)
Question(questionNumber, TID, questionAnswer, questionScoreTy
pe)
Outputs_4(EIScore, SNScore, TFScore, JPScore, mbtiName)
Outputs_3(TID, EIScore, SNScore, TFScore, JPScore)
MyVideo(videoLink, videoType, videoTitle)
MyBook(bookURL, bookTitle, bookAuthor)
MyArticle(articleURL, articleTitle, articleAuthor, articleTex
t)
IsRecommendedVideo(mbtiName, videoLink)
IsRecommendedBook(mbtiName, bookURL)
IsRecommendedArticle(mbtiName, articleURL)
```

d. and e. Querry + Screenshots

Insert

```
appService.insertLoginUser()
//line 139

INSERT INTO LoginUser (username, emailAddress, password, mbti
Name, age, country, userGender)
VALUES (:username, :emailAddress, :password, :mbtiName, :age,
:country, :userGender)
```

Before: **During:**

```
SQL> select * from LoginUser;

no rows selected
```

Register

Email(required):

```
yujiec@student.ubc.ca
```

Password(required):

```
123
```

MBTI(Must be 4 word all caps):

```
ESTJ
```

Age:

```
23
```

Country:

```
Canada
```

Gender:

```
F
```

[insert]

register successfully!

After:

```
SQL>  select emailAddress, username, password, mbtiName, age, userGender from LoginUser;

EMAILADDRESS
-----------------------------------------------------------
USERNAME
-----------------------------------------------------------
PASSWORD
-----------------------------------------------------------
MBTI        AGE U
---- ---------- -
yujiec@student.ubc
user1
123
ESTJ         23 F
```

Update

```
UpdateAccount.updatePassword()
//line 74
UPDATE LoginUser SET password = :newPassword WHERE username =
 :username
```

Before:

```
SQL>  select emailAddress, username, password, mbtiName, age, userGender from LoginUser;

EMAILADDRESS
-----------------------------------------------------------
USERNAME
-----------------------------------------------------------
PASSWORD
-----------------------------------------------------------
MBTI        AGE U
---- ---------- -
yujiec@student.ubc
user1
123
ESTJ         23 F
```

After:

During:

Update your account info

The values are case sensitive and if you enter in the wrong case, the update statement will not do anything.

Update email:

```
yujiec@student.ubc
```

Update password:

```
1234
```

Update mbti:

```
INFP
```

Update age:

```
20
```

Update country:

```
England
```

Update gender:

```
M
```

[update]

```
SQL> select emailAddress, username, password, mbtiName, age userGender from LoginUser

EMAILADDRESS
-----------------------------------------------------------------------
USERNAME
-----------------------------------------------------------------------
PASSWORD
-----------------------------------------------------------------------
MBTI      AGE U
---- ---------- -
yujiec@student.ubc
user1
1234
INFP       20 F
```

Delete

```
appService.deleteLogInUser()
//line 419
DELETE FROM MyUser WHERE username  = :username
```

Before:

```
SQL> select username, emailAddress, password, mbtiName from LoginUser where emailAddress = 'yujiec@student.ubc.ca';

USERNAME
-----------------------------------------------------------------------
EMAILADDRESS
-----------------------------------------------------------------------
PASSWORD
-----------------------------------------------------------------------
MBTI
----
user4
yujiec@student.ubc.ca
1234
INFP
```

During:

Delete User

Email Address:

yujiec@student.ubc.ca

Delete User

User deleted successfully.

After:

```
SQL> select username, emailAddress, password, mbtiName from LoginUser where emailAddress = 'yujiec@student.ubc.ca';

no rows selected
```

Select

```
appService.logIn()
//line 173
```

```
SELECT mbtiName FROM LoginUser
 WHERE emailAddress = :emailAddress AND password = :password
```

Before:

During:

After:

Projection

```
appService.getRecommendedVideos()
// line 241
SELECT V.videoTitle, V.videoType, V.videoLink
        FROM IsRecommendedVideo IRV, MyVideo V
        WHERE IRV.videoLink = V.videoLink AND IRV.mbtiName =
:mbtiType
```

Before: After submitting the test, the table of Recommended Videos pops up.

During:

After:

Join

```
appService.getRecommendedBooks()
 //line 275
SELECT B.bookTitle, B.bookAuthor, B.bookURL
        FROM IsRecommendedBook IRB, MyBook B
        WHERE IRB.bookURL = B.bookURL AND IRB.mbtiName = :mbt
iType
```

Before: After submitting the test, the table of Recommended Books pops up.

Personality Test

1. Do you get your energy from interaction with the world around you (Extravert), or more from yourself, with your own activities and thoughts (Introvert)?
○ ◉
E I

2. Does your info preferably come from observing, measuring, experience (Sensing), or from explanation, reasoning, more abstract understanding (iNtuition)?
○ ◉
S N

3. How do you decide: by way of ratio, logic, given decision criteria (Thinking), or by looking at context, interests, what feels right (Feeling)?
○ ◉
T F

4. How do you approach situations: should things go as planned and wanted (Judgement), or are you flexible, open to change, go with the flow (Perception)?
○ ◉
J P

Submit

Test submitted successfully!

Recommended Books

Title	Author	Link

During:

```
BOOKTITLE
-----------------------------------------------------------
BOOKAUTHOR
-----------------------------------------------------------
BOOKURL
-----------------------------------------------------------
The Courage to Be Disliked
 Ichiro Kishimi , Fumitake Koga
https://a.co/d/hak3RIa

Example book
Jane Doe
http://example.com/book
```

After:

Recommended Books

Title	Author	Link
The Courage to Be Disliked	Ichiro Kishimi , Fumitake Koga	Read here
Example book	Jane Doe	Read here

Aggregation with GROUP BY

```
appService.getNumberOfALLMbti()
//line 325
SELECT m.mbtiName, COUNT(lu.username)
        FROM LoginUser lu, Mbti_Type m
        WHERE lu.mbtiName = m.mbtiName
        GROUP BY m.mbtiName
        ORDER BY m.mbtiName
```

Before:

During:

After:

Get the number of User of each MBTI type

`Count`

```
SQL> select m.mbtiName, count(lu.username)
  2   from LoginUser lu, Mbti_type m
  3   where lu.mbtiName = m.mbtiName
  4   group by m.mbtiName
  5   order by m.mbtiName;

MBTI COUNT(LU.USERNAME)
---- -------------------
ESTJ                   2
INFP                   1
ISTP                   1
```

Get the number of User of each MBTI type

`Count`

the number of each mbti user are ESTJ,2,INFP,1,ISTP,1

Aggregation with HAVING

```
appService.getMbtiMoreThanN()
//line 343
SELECT m.mbtiName, COUNT(lu.username)
        FROM LoginUser lu, Mbti_Type m
        WHERE lu.mbtiName = m.mbtiName
        GROUP BY m.mbtiName
        HAVING COUNT(lu.username) >= :N
        ORDER BY m.mbtiName
```

Before:

MBTI Users Count

Enter the minimum number of users:

```
1
```

`Get MBTI Types`

During:

```
SQL> SELECT m.mbtiName, COUNT(lu.username)      FROM LoginUser lu, Mbti_Type m     WHERE lu.mbtiName = m.mbtiName     GROUP BY m.mbtiName     H
AVING COUNT(lu.username) >= 1   ORDER BY m.mbtiName;

MBTI COUNT(LU.USERNAME)
---- -----------------
ESTJ             1
INFP             2
```

After:

MBTI Users Count

Enter the minimum number of users:

```
1
```

[Get MBTI Types]

- ESTJ,1
- INFP,2

Nested Aggregation with GROUP BY

```
appService.getAverageBook()
//line 362
WITH MBTI_Book_Count AS (
            SELECT
                mbtiName,
                COUNT(bookURL) AS NumberOfBooks
            FROM
                IsRecommendedBook
            GROUP BY
                mbtiName
        )
        SELECT
            AVG(NumberOfBooks)
        FROM
            MBTI_Book_Count
```

Before: **During:**

MBTI Average Number of Book Recommendations

Calculate Average

```
SQL> with MBTI_Book_Count as (
  2    select mbtiName, count(bookURL) as numberOfBooks
  3    from IsRecommendedBook
  4    group by
  5    mbtiName
  6    )
  7    select avg(numberOfBooks)
  8    from MBTI_Book_Count;

AVG(NUMBEROFBOOKS)
------------------
                 2
```

After:

MBTI Average Number of Book Recommendations

Calculate Average

Average number of books recommended: 2

Division

```
appService.getAllRecommendBook()
 //line 392
SELECT B.bookTitle
         FROM MyBook B
         WHERE NOT EXISTS (
             (SELECT M.mbtiName FROM MBTI_Type M)
             MINUS
             (SELECT I.mbtiName FROM IsRecommendedBook I WHE
         )
```

Before: **During:**

All MBTI Recommended Books

Get Recommended Books

```
SQL> select B.bookTitle
  2  from MyBook B
  3  where not exists (
  4  (select M.mbtiName from MBTI_Type M)
  5  MINUS
  6  (select I.mbtiName from IsRecommendedBook I where I.bookURL = B.bookURL)
  7  );

BOOKTITLE
--------------------------------------------------------------------------
Example book
```

After:

All MBTI Recommended Books

Get Recommended Books

Books recommended by all MBTI types: Example book