Course Project – Anime Database Design & Implementation

Database Systems

[CSIS-3222-001]

Author

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Database Design

#1 Project Intent

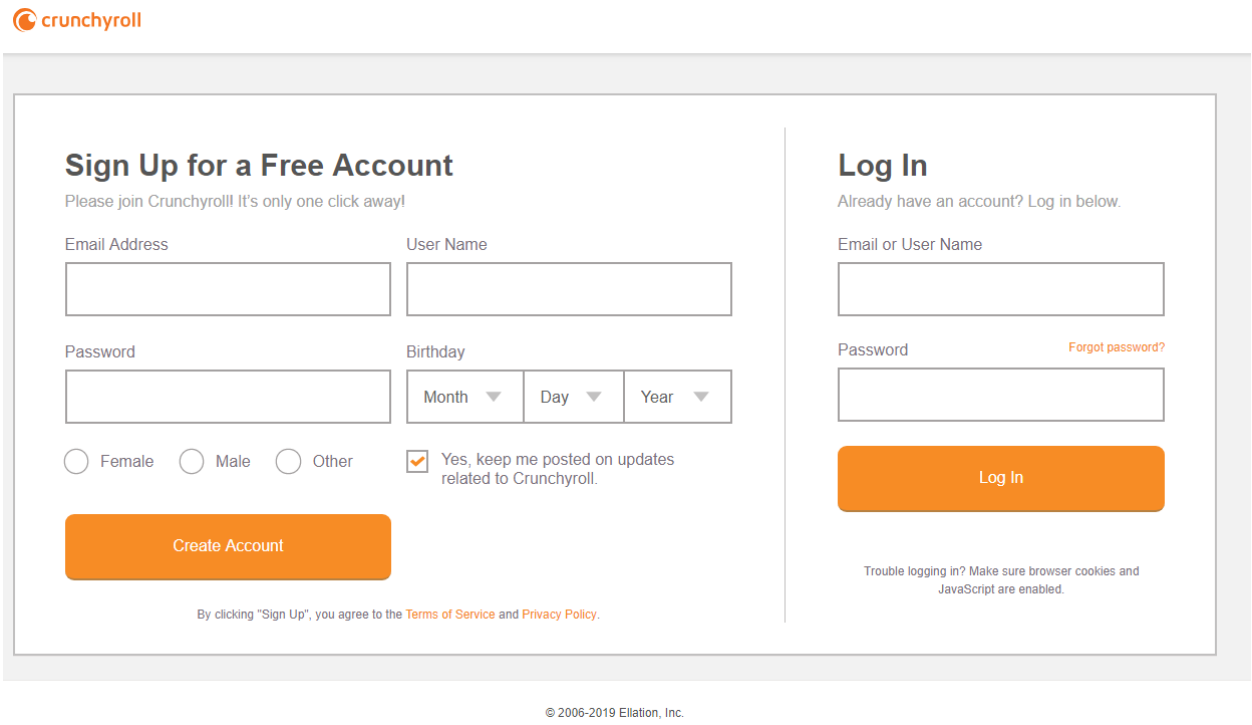
For this project, I'd like to design a database system for anime. Anime is a style of Japanese film and animation. I enjoy watch a lot of anime and thought it would be useful to create a database that contained information about all the different anime that exist. This system is a conceptualization of an Anime database that is inspired from several sites: myanmilelist.net which contains information about anime, crunchyroll.com an anime streaming site, and animecharacetdatabase.com which has a database of many characters from anime.

The goal of this system would be to merge elements from these three different websites to create an adequate database for Anime. For this database system, I'd like to make it easy to find anime based on different genre a user enjoys, and lists all the details of that anime in a list with things such as genre type, setting, characters, release date, etc. I think it would be a fun and useful project for anime fans. They could input data about an anime, and the database system can organize it well. A list of the entities can be: Anime, Manga, Genre, Studio Character, Creator, and User.

The scope of this project is to create a database that contains information of the entities previously listed. User will also be able to create accounts and have a list of anime that they enjoy. The system could possibly be self-sustainable since users will be able to input anime data if it does not already exist in the database. In this report I will design a relational database and implement it in SQL Oracle. There will be several figures of diagrams, sample data forms, and prototypes of better forms for a more reliable database system.

#2 Sample Forms

Crunchyroll Sign Up/Log in Forms

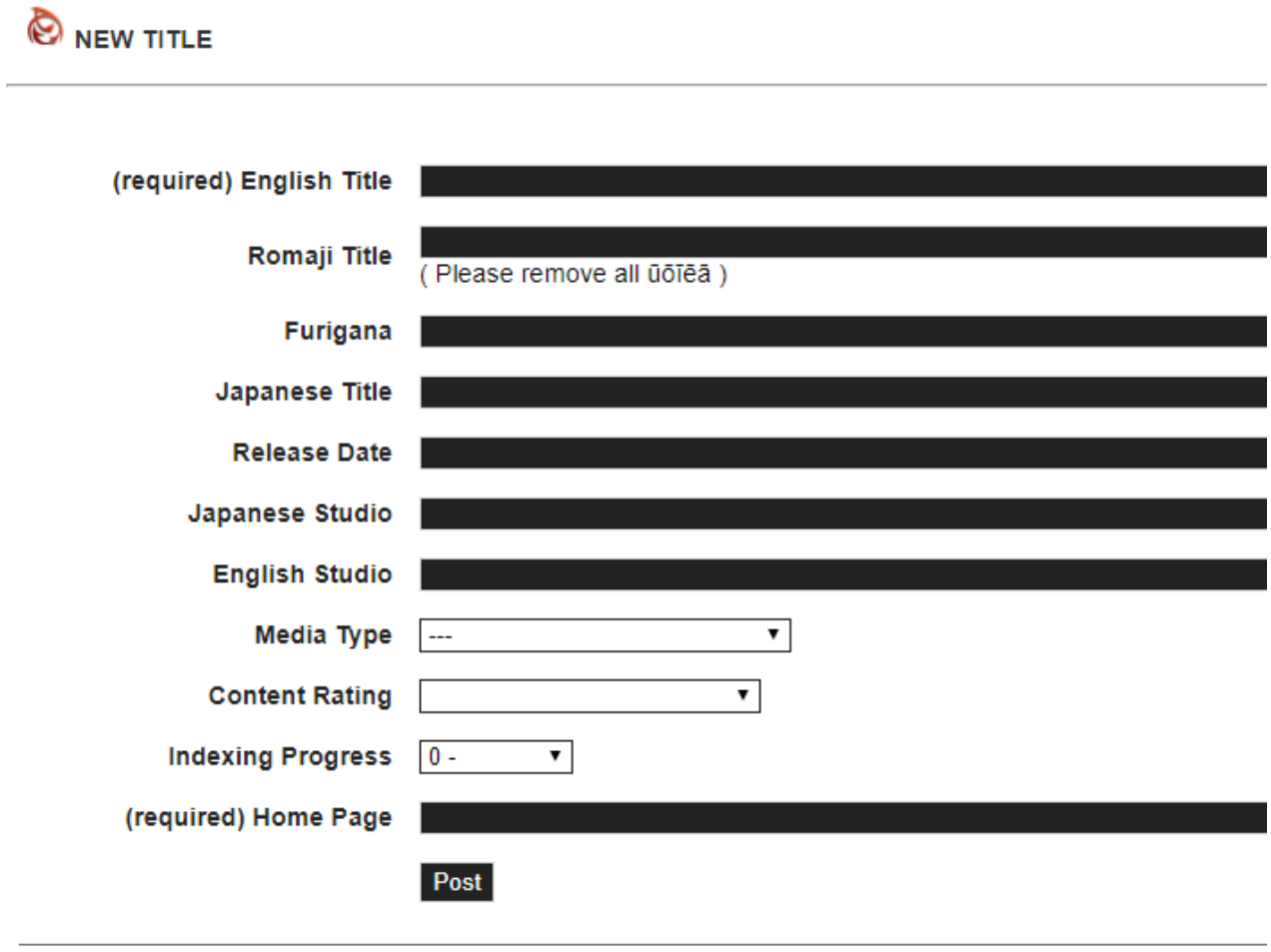


These two forms are used for user purposes, either to create a new account on log into an existing account. The Sign Up forms asks for a number of things like email address, username, password, date of birth, gender, and crunchyroll updates. These will be filled out by the user and put into a database. The variables that would be in this table would be as follows:

- USERNAME PRIMARY KEY NOT NULL
- EMAIL ADDRESS VARCHAR(30) NOT NULL
- PASSWORD VARCHAR(30) NOT NULL
- BIRTHDAY DATE NOT NULL
- GENDER NOT NULL

The Log In Form asks for the username/email and password. When a user enters this data, the database will be checked for the account and log them into the website.

Animecharactersdatabase Add New Series Form



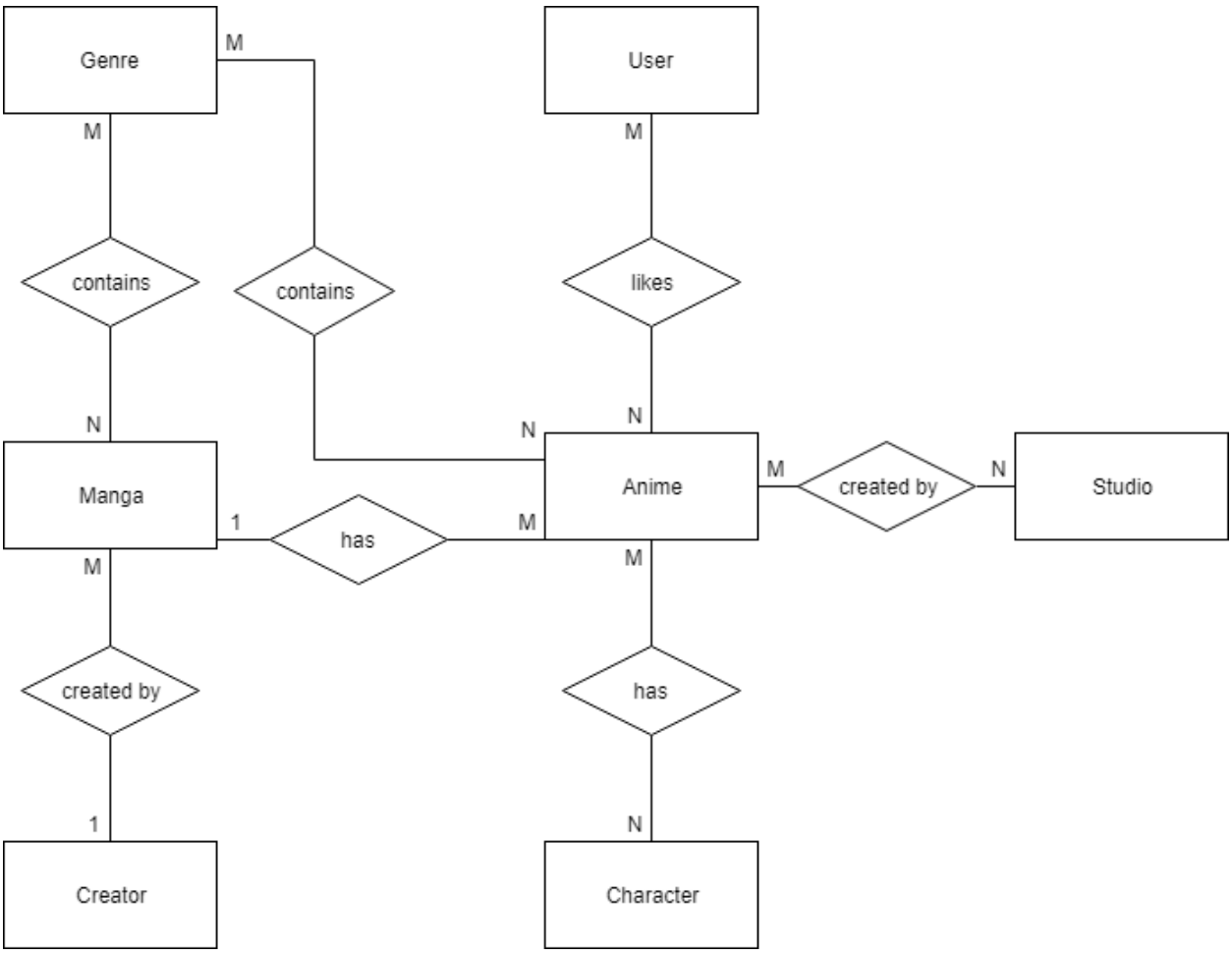
This form is used to add a new series into the already existing database of Anime. It asks for many of the attributes of the Anime entity such as its title, release date, content rating, media type, etc. The purpose of this form is to allow users to add a new series to the website and makes it self-sustainable as long as website traffic is existent.

#3 Conceptual ER model

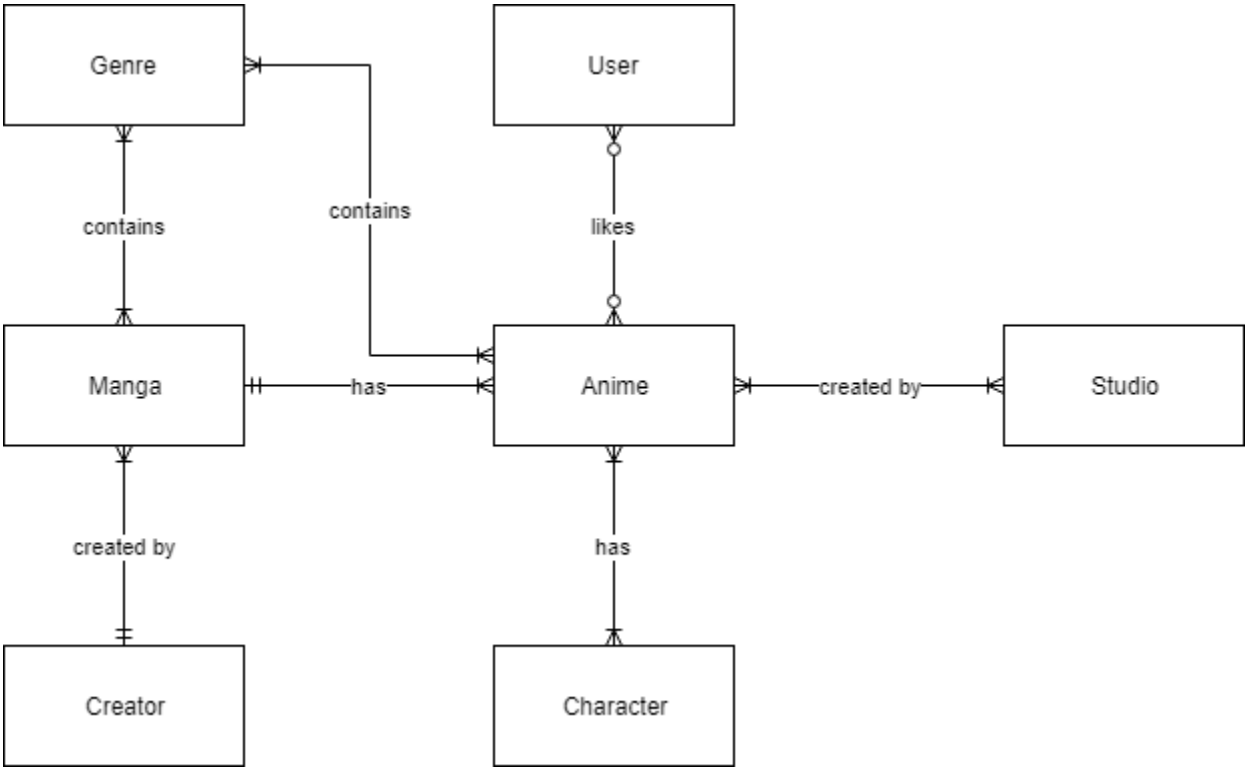
List of Entities

- Anime – the name of the anime and its attributes
- Manga – graphic novels that are usually adapted into anime
- Studio – the company or studio that creates and releases anime adaptations
- Genre – all the different genre types
- Character – characters in anime
- Creator – creators of anime
- User – anime fan account

Chen's notation model diagram



IE Crow Foot data model diagram (*without attributes*)



#4 Preliminary E-R logical data model

List of Entities

- Anime – the name of the anime and its attributes
    - AnimeID – used to uniquely identify; a105
    - AnimeTitle – the title of the anime; Steins;Gate
    - Episodes – how many episodes there are in the anime; 34
    - ReleaseDate – when the anime was first aired on TV; April 6, 2011
    - Rating – rating from 1-10 calculated based on what all the users have rated it; 7
    - Genres – what type of genres it contains; thriller, sci-fi
    - Studio – the studio that created the anime; White Fox

- Manga – graphic novels that are usually adapted into anime
    - MangaID – used to uniquely identify; m207
    - MangaTitle – the title of the manga; Bleach
    - Chapters – how many chapters there are in the manga; 765
    - ReleaseDate – when the first chapter was released; August 7, 2011
    - Rating – rating 1-10 from users; 8
    - Genres – type of genres it contains; adventure, supernatural
    - Creator – the creator of the manga; Tite Kubo

- Studio – the company or studio that creates and releases anime adaptations
    - StudioID – used to uniquely identify; s65
    - StudioName – the name of the studio; Toei Animation
    - Anime – the anime that the studio has created; One Piece, Dragon Ball Super, etc
    - Location – where the studio is based at; headquarters; Japan

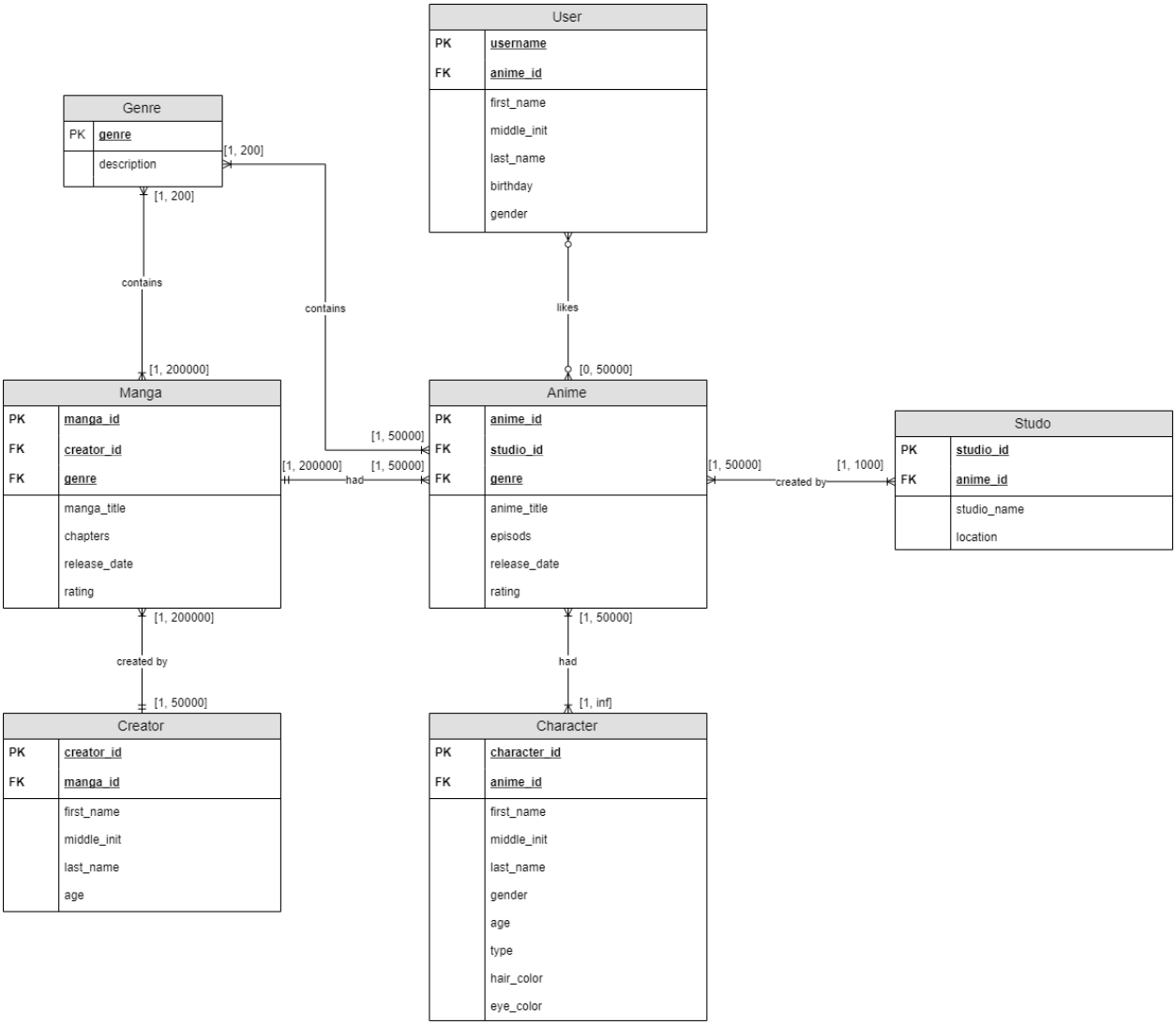
- Genre – all the different genre types
    - Genre – thriller, action, sci fi
    - Description – scary, suspenseful, action-packed

- Character – characters in anime
    - CharacterID – used to uniquely identify; c1025
    - FirstName – first name of character; Ichigo
    - MiddleInit – middle initial of character if applicable; m, null
    - LastName – last name of character; Kurosaki
    - Gender – gender of character; male, female
    - Age – how old the character is;17
    - Type – human, cat, dog, fox, demon, etc
    - HairColor – color of hair; orange
    - EyeColor – color of eyes; orange

- Creator – creators of anime
    - CreatorID - – used to uniquely identify
    - FirstName; Tite
    - MiddleInit; H
    - LastName; Kubo
    - Age; 41
    - Manga; Bleach

- User – anime fan account
    - Username J– used to uniquely identify; animefan123
    - FirstName - John
    - MiddleInit - K
    - LastName - Fisher
    - Birthday – March 3, 2000
    - Gender - Male

Preliminary IE Crow Foot data model diagram (*with attributes*)



Many Anime can be created by many Studios.

Each Studio makes many Anime.

Each Manga has at least 1 creator.

Each Manga has at least 1 Anime.

Each Anime has at least 1 Anime.

Each Creator can many Manga.

Each User can like zero or many Anime.

Each Anime can be liked by zero or many Users.

Many Anime can have many Characters.

Anime contains atleast 1 Genre.

Manga contains at least 1 Genre.

#5 Final E-R logical data model **#6 Relational schema** **#7 Physical Model**

Normalization Steps:

Anime

anime_id	studio_id	genre	anime_title	episodes	release_date	rating

1nf

anime_id	anime_title	episodes	release_date	rating

studio_id	studio_name	location

genre	description

Bridge entities

anime_id	genre

anime_id	studio_id

User

user_id	anime_id	first_name	middle_init	last_name	birthday	gender

1nf

user_id	first_name	middle_init	last_name	birthday	gender

anime_id	anime_title	episodes	release_date	rating

Bridge entity

user_id	anime_id

Manga

manga_id	creator_id	genre	manga_title	chapters	release_date	rating

1nf

manga_id	creator_id	manga_title	chapters	release_date	rating

genre	description

Bridge entity

manga_id	genre

Character

character_id	anime_id	first_name	middle_init	last_name	gender	age	type	hair_color	eye_color

1nf

character_id	first_name	middle_init	last_name	gender	age	type	hair_color	eye_color

anime_id	anime_title	episodes	release_date	rating

Bridge entity

character_id	anime_id

List of Entities

- Anime – the name of the anime and its attributes
    - anime_id – used to uniquely identify; a105
    - anime_title – the title of the anime; Steins;Gate
    - episodes – how many episodes there are in the anime; 34
    - release_date – when the anime was first aired on TV; April 6, 2011
    - rating – rating from 1-10 calculated based on what all the users have rated it; 7

- Manga – graphic novels that are usually adapted into anime
    - manga_id – used to uniquely identify; m207
    - manga_title – the title of the manga; Bleach
    - chapters – how many chapters there are in the manga; 765
    - release_date – when the first chapter was released; August 7, 2011
    - rating – rating 1-10 from users; 8
    - creator_id – the creator of the manga; Tite Kubo

- Studio – the company or studio that creates and releases anime adaptations
    - studio_id – used to uniquely identify; s65
    - studio_name – the name of the studio; Toei Animation
    - location – where the studio is based at; headquarters; Japan

- Genre – all the different genre types
    - genre – thriller, action, sci fi
    - description – scary, suspenseful, action-packed

- Character – characters in anime
    - character_id – used to uniquely identify; c1025
    - first_name – first name of character; Ichigo
    - middle_init – middle initial of character if applicable; m, null
    - last_name – last name of character; Kurosaki
    - gender – gender of character; male, female

  - age – how old the character is;17
  - type – human, cat, dog, fox, demon, etc
  - hair_color – color of hair; orange
  - eye_color – color of eyes; orange

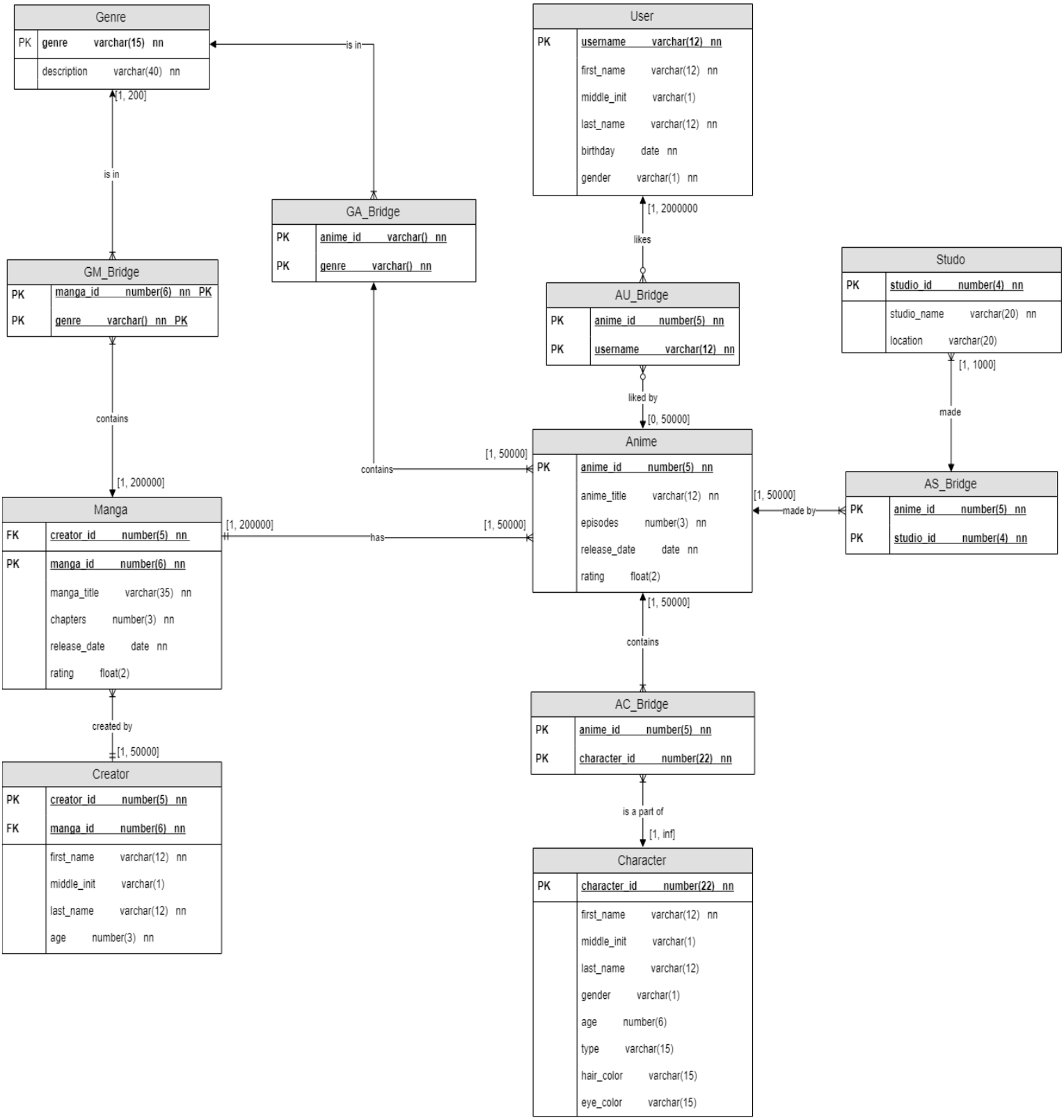
- Creator – creators of anime
  - creator_id – used to uniquely identify
  - nirst_name; Tite
  - middle_init; H
  - last_name; Kubo
  - age; 41
  - manga_id; Bleach
- User – anime fan account
  - username– used to uniquely identify; animefan123
  - first_name - John
  - middle_init - K
  - last_name - Fisher
  - birthday – March 3, 2000
  - gender – Male

Bridge Entities

- GM_Bridge
  - manga_id
  - genre
- GA_Bridge
  - anime_id
  - genre
- AU_Bridge
  - anime_id

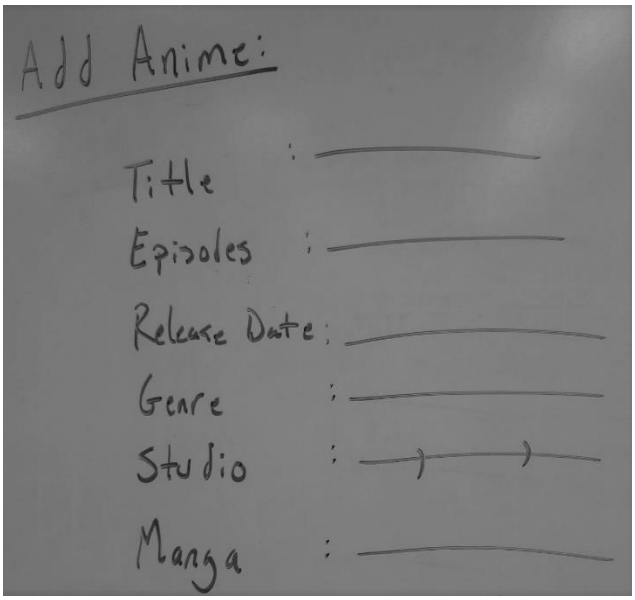
    - username
- AC_Bridge
    - anime_id
    - character_id
- AS_Bridge
    - anime_id
    - studio_id

Final IE Crow Foot data model diagram (*with attributes*)

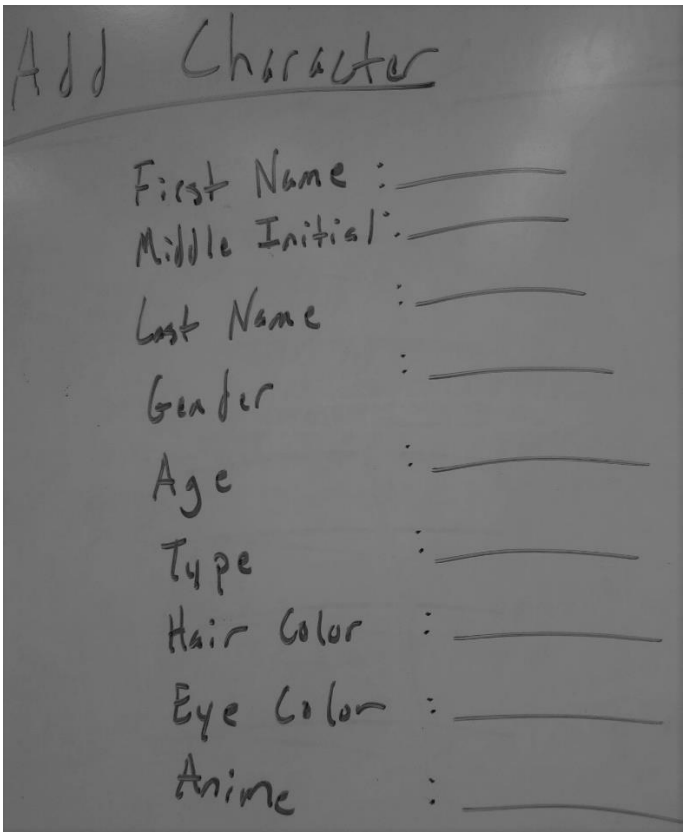


#9 Prototypes

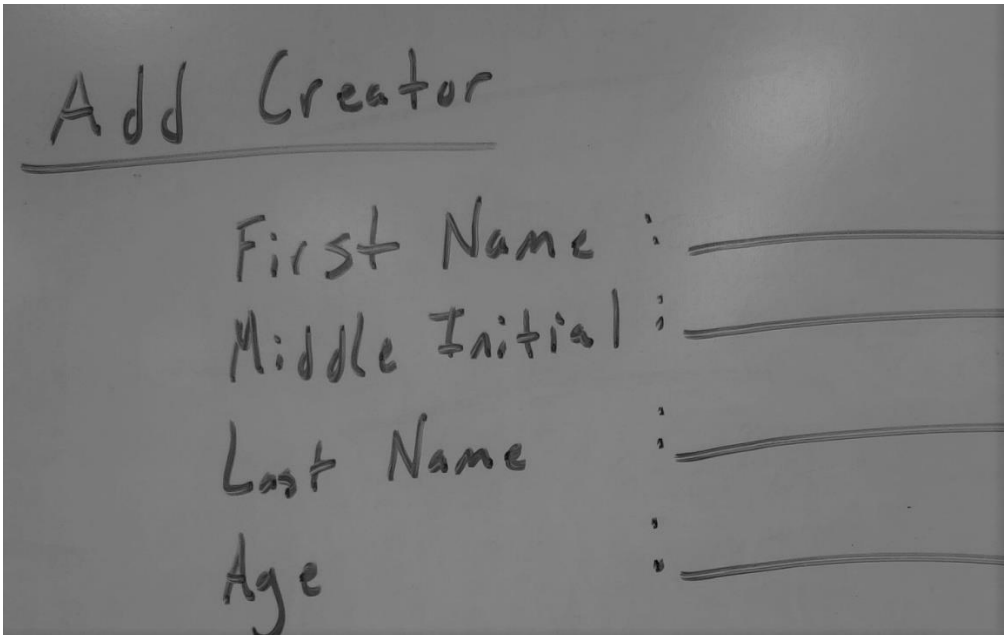
Anime



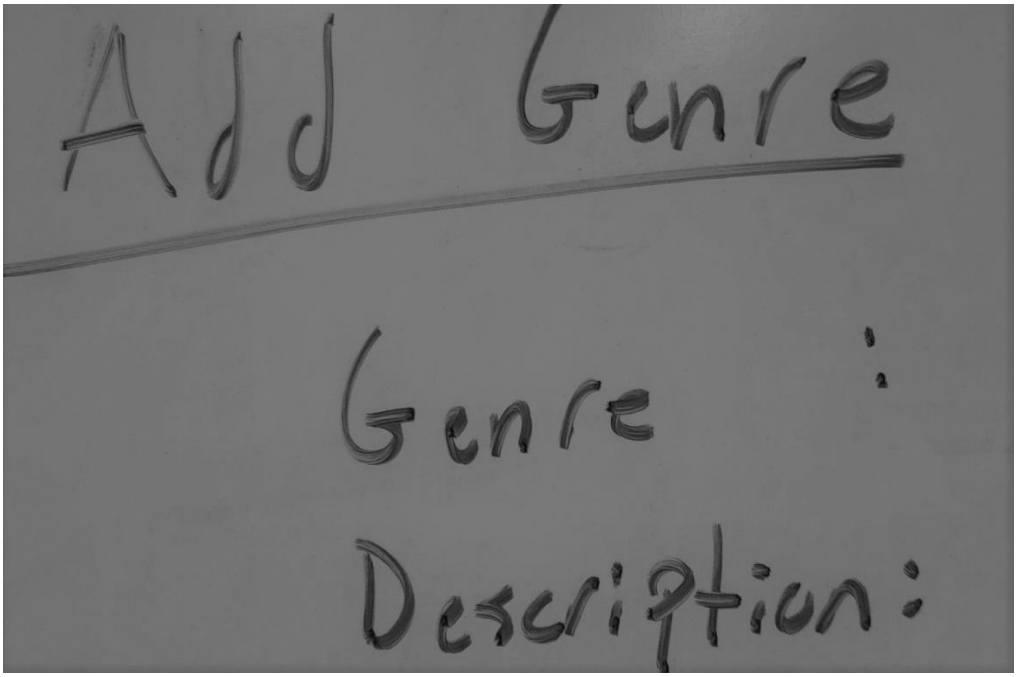
Character



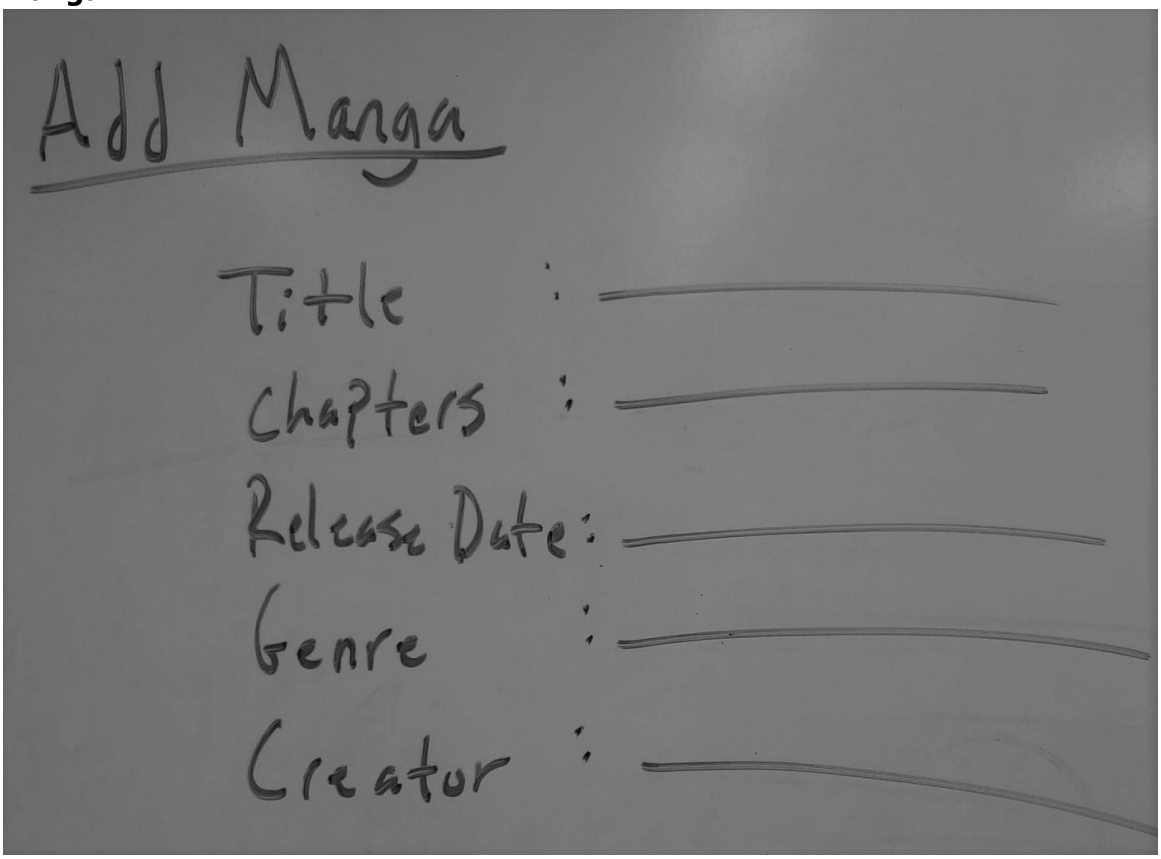
Creator



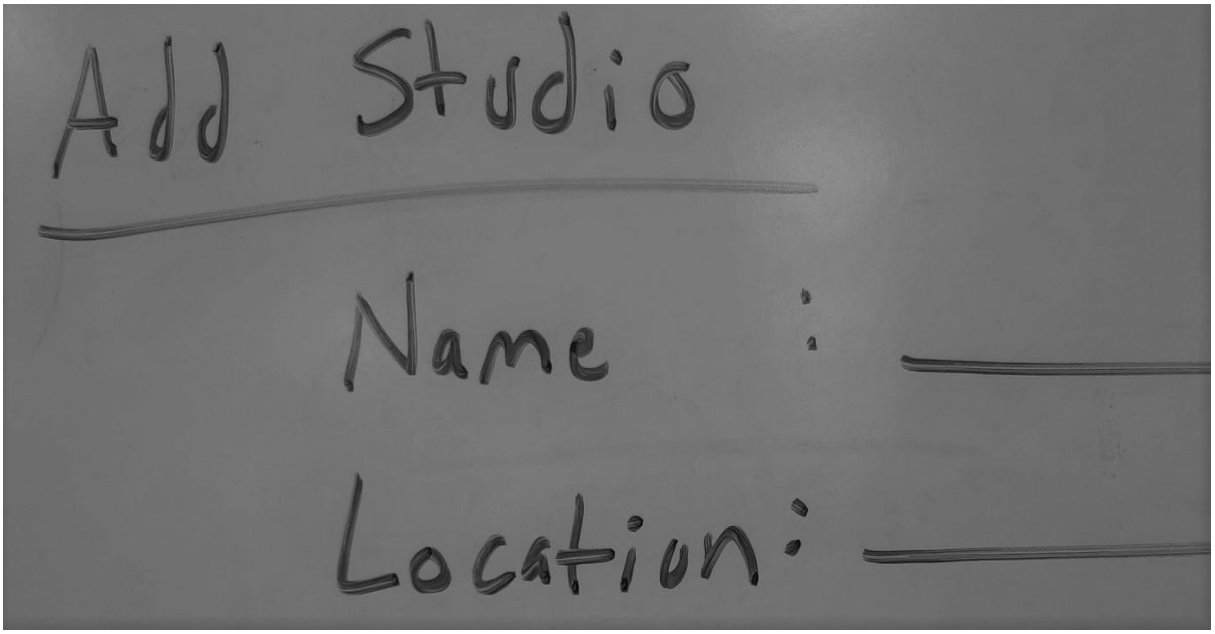
Genre



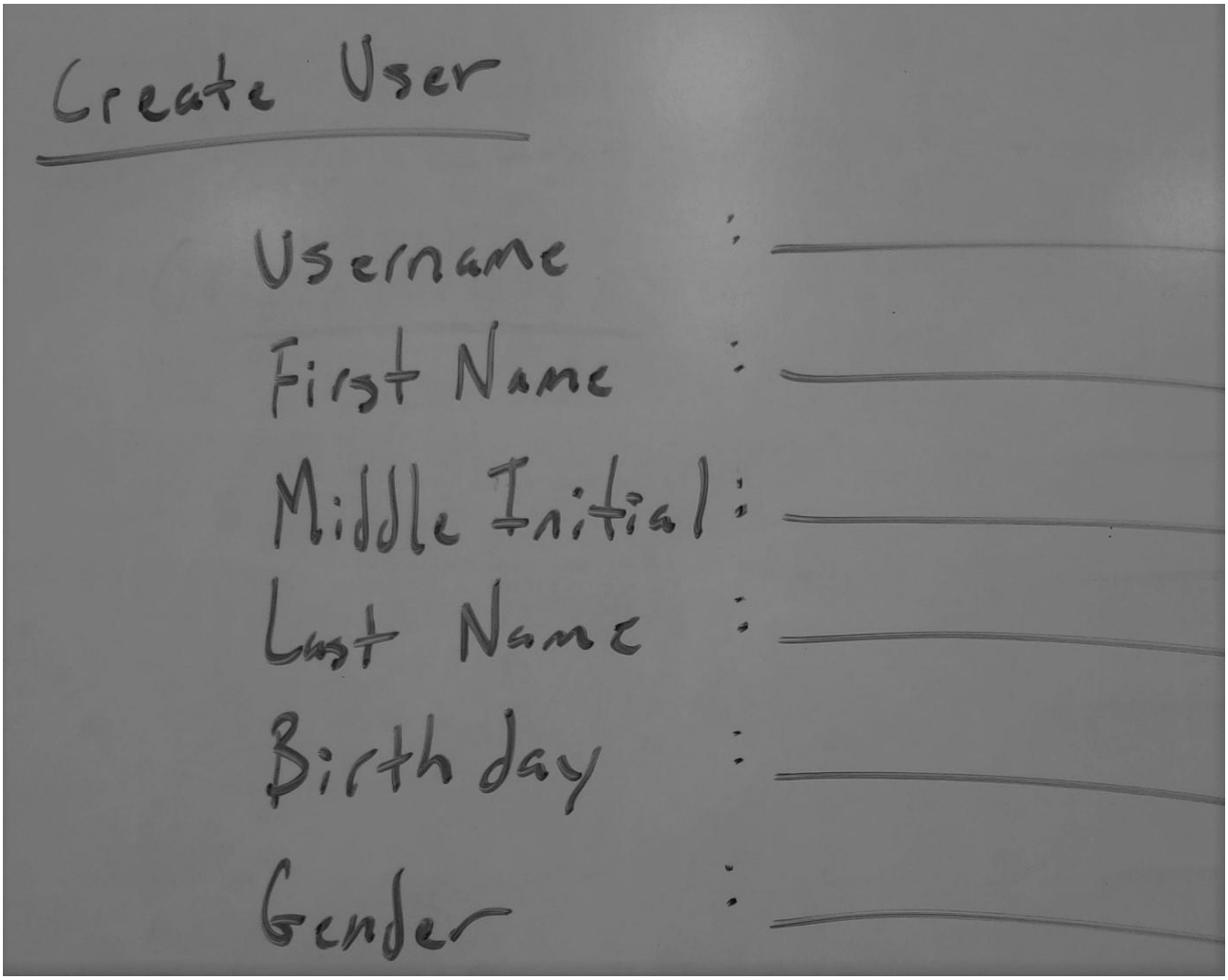
Manga



Studio



User


Create User
Username :
First Name :
Middle Initial :
Last Name :
Birthday :
Gender :

Appendix

Sample Data

Anime					
	anime_id	**anime_title**	**episodes**	**release_date**	**rating**
Instance-1	1	Steins;Gate	24	Apr 6, 2011	9.13
Instance-2	2	Bleach	366	Oct 5, 2004	7.88
Instance-3	3	One Piece	867	Oct 20, 1999	8.53
Instance-4	4	Dragonball Z	291	Apr 26, 1989	8.29
Instance-5	5	Black Clover	88	Oct 3, 2017	7.00

Manga						
	manga_id	**manga_title**	**chapters**	**release_date**	**rating**	**creator_id**
Instance-1	1	Steins;Gate	23	Sep 26, 2009	8.19	1
Instance-2	2	Bleach	705	Aug 7, 2001	7.71	2
Instance-3	3	One Piece	941	Jul 22, 1997	9.07	3
Instance-4	4	Dragon Ball	519	Jun 20, 2015	7.41	4
Instance-5	5	Black Clover	203	Feb 16, 2015	7.59	5

Creator						
	creator_id	**first_name**	**middle_init**	**last_name**	**age**	**manga_id**
Instance-1	1	Yomi	J	Sarachi	35	1
Instance-2	2	Tite		Kubo	41	2
Instance-3	3	Oda		Eiichiro	44	3
Instance-4	4	Akira		Toriyama	64	4
Instance-5	5	Yuuki		Tabata	34	5

Studio			
	studio_id	**studio_name**	**location**
Instance-1	1	White Fox	Tokyo
Instance-2	2	Studio Pierrot	Tokyo
Instance-3	3	Toei Animation	Tokyo
Instance-4	4	Madhouse	Tokyo
Instance-5	5	TNK	Nerima

Genre		
	genre	**description**
Instance-1	Action	fights, speed…
Instance-2	Adventure	traveling acr…
Instance-3	Horror	scary…
Instance-4	Slice of life	everyday life…
Instance-5	Fantasy	dream-like …

Character									
	character_id	**first_name**	**middie_init**	**last_name**	**gender**	**age**	**type**	**hair_color**	**eye_color**
Instance-1	1	Monkey	D	Luffy	M		Pirate	Black	Black
Instance-2	2	Ichigo		Kurosaki	M		Soul Reaper	Orange	Orange
Instance-3	3	Yuno			M		Wizard	Black	Yellow
Instance-4	4	Son		Goku	M		Fighter	Black	Black
Instance-5	5	Asta			M		Human	Grey	Green

User						
	username	**first_name**	**middle_init**	**last_name**	**birthday**	**gender**
Instance-1	bobby1	Bobby	K	Yu	May 2, 1997	M
Instance-2	bob2	Bob		Rob	Jun 5, 2001	M
Instance-3	tanash	Leroy		Jenkins	Apr 26, 1989	M
Instance-4	coolgamer2	Jen	K	Jane	May 2, 1996	F
Instance-5	yayeet	Alexis		King	May 4, 1965	O

GM_Bridge		
	genre	**manga_id**
Instance-1	Action	5
Instance-2	Adventure	5
Instance-3	Horror	2
Instance-4	Slice of life	1
Instance-5	Fantasy	5

GA_Bridge		
	genre	**anime_id**
Instance-1	Action	5
Instance-2	Adventure	5
Instance-3	Horror	2
Instance-4	Slice of life	1
Instance-5	Fantasy	5

AU_Bridge		
	anime_id	**username**
Instance-1	1	bobby1
Instance-2	2	bobby1
Instance-3	3	bobby1
Instance-4	2	bob2
Instance-5	2	tanash

AC_Bridge		
	anime_id	**character_id**
Instance-1	1	1
Instance-2	2	1
Instance-3	2	2
Instance-4	2	3
Instance-5	3	4

AS_Bridge		
	anime_id	**studio_id**
Instance-1	3	3
Instance-2	4	3
Instance-3	2	2
Instance-4	5	2
Instance-5	1	1

SQL Data Definition scripts

Script

```
SPOOL Output-Anime.txt
--SPOOL Output.txt APPEND
SET ECHO ON


SET LINESIZE 32767
SET TRIMSPOOL ON
SET TRIMOUT ON


drop table GM_Bridge;
drop table GA_Bridge;
drop table AU_Bridge;
drop table AC_Bridge;
drop table AS_Bridge;
drop table Manga;
drop table Creator;
drop table Anime;
drop table Studio;
drop table Genre;
drop table Character;
drop table Users;

/*
Anime Table:
*/
```

```
create table Anime(
anime_id number(5) PRIMARY KEY,
anime_title varchar(12) not null,
episodes number(3) not null,
release_date date not null,
rating float(2)
);

/*
Creator Table:
*/

create table Creator(
creator_id number(5) PRIMARY KEY,
first_name varchar(12) not null,
middle_init varchar(1),
last_name varchar(12) not null,
age number(6) not null
);


/*
Manga Table:
*/

create table Manga(
manga_id number(5) PRIMARY KEY,
```

```
manga_title varchar(12) not null,
chapters number(3) not null,
release_date date not null,
rating float(2),
creator_id number(5) references Creator(creator_id)
);


/*
Studio Table:
*/

create table Studio(
studio_id number(4) PRIMARY KEY,
studio_name varchar(20) not null,
location varchar(20)
);


/*
Genre Table:
*/

create table Genre(
genre varchar(15) PRIMARY KEY,
description varchar(40) not null
);
```

```
/*
Character Table:
*/

create table Character(
character_id number(22) PRIMARY KEY,
first_name varchar(12) not null,
middle_init varchar(1),
last_name varchar(12),
gender varchar(1),
age number(6),
type varchar(15),
hair_color varchar(15),
eye_color varchar(15)
);

/*
User Table:
*/

create table Users(
username varchar(12) PRIMARY KEY,
first_name varchar(12) not null,
middle_init varchar(1),
last_name varchar(12) not null,
birthday date not null,
gender varchar(1) not null
);
```

```
/*
GM_Bridge Table:
*/

create table GM_Bridge(
genre varchar(15) references Genre(genre),
manga_id number(6) references Manga(manga_id)
);

/*
GA_Bridge Table:
*/

create table GA_Bridge(
genre varchar(15) references Genre(genre),
anime_id number(6) references Anime(anime_id)
);

/*
AU_Bridge Table:
*/

create table AU_Bridge(
anime_id number(5) references Anime(anime_id),
username varchar(12) references Users(username)
);
```

```
/*
AC_Bridge Table:
*/

create table AC_Bridge(
anime_id number(5) references Anime(anime_id),
character_id number(22) references Character(character_id)
);

/*
AS_Bridge Table:
*/

create table AS_Bridge(
anime_id number(6) references Anime(anime_id),
studio_id number(4) references Studio(studio_id)
);


DESCRIBE Anime;
DESCRIBE Manga;
DESCRIBE Creator;
DESCRIBE Studio;
DESCRIBE Genre;
DESCRIBE Character;
DESCRIBE Users;
DESCRIBE GM_Bridge;
DESCRIBE GA_Bridge;
```

```
DESCRIBE AU_Bridge;
DESCRIBE AC_Bridge;
DESCRIBE AS_Bridge;

SET ECHO OFF
SPOOL OFF
```

Output

```
SQL>
SQL>
SQL> SET LINESIZE 32767
SQL> SET TRIMSPOOL ON
SQL> SET TRIMOUT ON
SQL>
SQL> drop table GM_Bridge;

Table GM_BRIDGE dropped.

SQL> drop table GA_Bridge;

Table GA_BRIDGE dropped.

SQL> drop table AU_Bridge;

Table AU_BRIDGE dropped.

SQL> drop table AC_Bridge;

Table AC_BRIDGE dropped.

SQL> drop table AS_Bridge;

Table AS_BRIDGE dropped.

SQL> drop table Manga;
```

Table MANGA dropped.

SQL> drop table Creator;

Table CREATOR dropped.

SQL> drop table Anime;

Table ANIME dropped.

SQL> drop table Studio;

Table STUDIO dropped.

SQL> drop table Genre;

Table GENRE dropped.

SQL> drop table Character;

Table CHARACTER dropped.

SQL> drop table Users;

Table USERS dropped.

SQL>

```
SQL> /*
SQL>Anime Table:
SQL>*/
SQL>
SQL> create table Anime(
  2  anime_id number(5) PRIMARY KEY,
  3  anime_title varchar(12) not null,
  4  episodes number(3) not null,
  5  release_date date not null,
  6  rating float(2)
  7  );

Table ANIME created.

SQL>
SQL> /*
SQL>Creator Table:
SQL>*/
SQL>
SQL> create table Creator(
  2  creator_id number(5) PRIMARY KEY,
  3  first_name varchar(12) not null,
  4  middle_init varchar(1),
  5  last_name varchar(12) not null,
  6  age number(6) not null
  7  );

Table CREATOR created.
```

```
SQL>
SQL>
SQL> /*
SQL>Manga Table:
SQL>*/
SQL>
SQL> create table Manga(
  2  manga_id number(5) PRIMARY KEY,
  3  manga_title varchar(12) not null,
  4  chapters number(3) not null,
  5  release_date date not null,
  6  rating float(2),
  7  creator_id number(5) references Creator(creator_id)
  8  );

Table MANGA created.

SQL>
SQL> /*
SQL>Studio Table:
SQL>*/
SQL>
SQL> create table Studio(
  2  studio_id number(4) PRIMARY KEY,
  3  studio_name varchar(20) not null,
  4  location varchar(20)
  5  );
```

```
Table STUDIO created.

SQL>
SQL>
SQL> /*
SQL>Genre Table:
SQL>*/
SQL>
SQL> create table Genre(
  2  genre varchar(15) PRIMARY KEY,
  3  description varchar(40) not null
  4  );

Table GENRE created.

SQL>
SQL> /*
SQL>Character Table:
SQL>*/
SQL>
SQL> create table Character(
  2  character_id number(22) PRIMARY KEY,
  3  first_name varchar(12) not null,
  4  middle_init varchar(1),
  5  last_name varchar(12),
  6  gender varchar(1),
  7  age number(6),
```

```
  8  type varchar(15),
  9  hair_color varchar(15),
 10  eye_color varchar(15)
 11  );

Table CHARACTER created.

SQL>
SQL> /*
SQL>User Table:
SQL>*/
SQL>
SQL> create table Users(
  2  username varchar(12) PRIMARY KEY,
  3  first_name varchar(12) not null,
  4  middle_init varchar(1),
  5  last_name varchar(12) not null,
  6  birthday date not null,
  7  gender varchar(1) not null
  8  );

Table USERS created.

SQL>
SQL> /*
SQL>GM_Bridge Table:
SQL>*/
SQL>
```

```
SQL> create table GM_Bridge(
  2  genre varchar(15) references Genre(genre),
  3  manga_id number(6) references Manga(manga_id)
  4  );

Table GM_BRIDGE created.

SQL>
SQL> /*
SQL>GA_Bridge Table:
SQL>*/
SQL>
SQL> create table GA_Bridge(
  2  genre varchar(15) references Genre(genre),
  3  manga_id number(6) references Manga(manga_id)
  4  );

Table GA_BRIDGE created.

SQL>
SQL> /*
SQL>AU_Bridge Table:
SQL>*/
SQL>
SQL> create table AU_Bridge(
  2  anime_id number(5) references Anime(anime_id),
  3  username varchar(12) references Users(username)
  4  );
```

```
Table AU_BRIDGE created.

SQL>
SQL> /*
SQL>AC_Bridge Table:
SQL>*/
SQL>
SQL> create table AC_Bridge(
  2  anime_id number(5) references Anime(anime_id),
  3  character_id number(22) references Character(character_id)
  4  );

Table AC_BRIDGE created.

SQL>
SQL> /*
SQL>AS_Bridge Table:
SQL>*/
SQL>
SQL> create table AS_Bridge(
  2  anime_id number(6) references Anime(anime_id),
  3  studio_id number(4) references Studio(studio_id)
  4  );

Table AS_BRIDGE created.

SQL>
```

```
SQL>
SQL> DESCRIBE Anime;
Name        Null?    Type
----------- -------- ------------
ANIME_ID    NOT NULL NUMBER(5)
ANIME_TITLE  NOT NULL VARCHAR2(12)
EPISODES    NOT NULL NUMBER(3)
RELEASE_DATE NOT NULL DATE
RATING              FLOAT(2)
SQL> DESCRIBE Manga;
Name        Null?    Type
----------- -------- ------------
MANGA_ID    NOT NULL NUMBER(5)
MANGA_TITLE  NOT NULL VARCHAR2(12)
CHAPTERS    NOT NULL NUMBER(3)
RELEASE_DATE NOT NULL DATE
RATING              FLOAT(2)
CREATOR_ID          NUMBER(5)
SQL> DESCRIBE Creator;
Name       Null?    Type
---------- -------- ------------
CREATOR_ID  NOT NULL NUMBER(5)
FIRST_NAME  NOT NULL VARCHAR2(12)
MIDDLE_INIT         VARCHAR2(1)
LAST_NAME   NOT NULL VARCHAR2(12)
AGE         NOT NULL NUMBER(6)
SQL> DESCRIBE Studio;
Name       Null?    Type
```

---------- -------- ------------

STUDIO_ID NOT NULL NUMBER(4)

STUDIO_NAME NOT NULL VARCHAR2(20)

LOCATION VARCHAR2(20)

SQL> DESCRIBE Genre;

Name Null? Type

---------- -------- ------------

GENRE NOT NULL VARCHAR2(15)

DESCRIPTION NOT NULL VARCHAR2(40)

SQL> DESCRIBE Character;

Name Null? Type

---------- -------- ------------

CHARACTER_ID NOT NULL NUMBER(22)

FIRST_NAME NOT NULL VARCHAR2(12)

MIDDLE_INIT VARCHAR2(1)

LAST_NAME VARCHAR2(12)

GENDER VARCHAR2(1)

AGE NUMBER(6)

TYPE VARCHAR2(15)

HAIR_COLOR VARCHAR2(15)

EYE_COLOR VARCHAR2(15)

SQL> DESCRIBE Users;

Name Null? Type

---------- -------- ------------

USERNAME NOT NULL VARCHAR2(12)

FIRST_NAME NOT NULL VARCHAR2(12)

MIDDLE_INIT VARCHAR2(1)

LAST_NAME NOT NULL VARCHAR2(12)

BIRTHDAY NOT NULL DATE

GENDER NOT NULL VARCHAR2(1)

SQL> DESCRIBE GM_Bridge;

Name Null? Type

-------- ----- ------------

GENRE VARCHAR2(15)

MANGA_ID NUMBER(6)

SQL> DESCRIBE GA_Bridge;

Name Null? Type

-------- ----- ------------

GENRE VARCHAR2(15)

MANGA_ID NUMBER(6)

SQL> DESCRIBE AU_Bridge;

Name Null? Type

-------- ----- ------------

ANIME_ID NUMBER(5)

USERNAME VARCHAR2(12)

SQL> DESCRIBE AC_Bridge;

Name Null? Type

------------ ----- ----------

ANIME_ID NUMBER(5)

CHARACTER_ID NUMBER(22)

SQL> DESCRIBE AS_Bridge;

Name Null? Type

--------- ----- ---------

ANIME_ID NUMBER(6)

STUDIO_ID NUMBER(4)

SQL>

```
SQL> SET ECHO OFF
```

SQL Data Manipulation scripts

Script

```
SPOOL Output-AnimeManipulation.txt
--SPOOL Output.txt APPEND
SET ECHO ON


SET LINESIZE 32767
SET TRIMSPOOL ON
SET TRIMOUT ON
/*
Anime Test Data
*/
INSERT INTO Anime(anime_id, anime_title, episodes, release_date, rating)
VALUES(1, 'Steins;Gate', 24, date'2011-04-06', 9.13);

INSERT INTO Anime(anime_id, anime_title, episodes, release_date, rating)
VALUES('2', 'Bleach', '366', date'2004-10-05', '7.88');

INSERT INTO Anime(anime_id, anime_title, episodes, release_date, rating)
VALUES('3', 'One Piece', '867', date'1999-05-20', '8.53');

INSERT INTO Anime(anime_id, anime_title, episodes, release_date, rating)
VALUES('4', 'Dragonball Z', '291', date'1989-04-26', '8.29');

INSERT INTO Anime(anime_id, anime_title, episodes, release_date, rating)
VALUES('5', 'Black Clover', '88', date'2017-10-3', '7.00');
```

```
/*
Creator Test Data
*/
INSERT INTO Creator(creator_id, first_name, middle_init, last_name, age)
VALUES('1', 'Yomi', 'J', 'Sarachi', '35');

INSERT INTO Creator(creator_id, first_name, middle_init, last_name, age)
VALUES('2', 'Tite', '', 'Kubo', '41');

INSERT INTO Creator(creator_id, first_name, middle_init, last_name, age)
VALUES('3', 'Oda', '', 'Eiichiro', '44');

INSERT INTO Creator(creator_id, first_name, middle_init, last_name, age)
VALUES('4', 'Akira', '', 'Toriyama', '64');

INSERT INTO Creator(creator_id, first_name, middle_init, last_name, age)
VALUES('5', 'Yuuki', '', 'Tabata', '34');

/*
Manga Test Data
*/
INSERT INTO Manga(manga_id, manga_title, chapters, release_date, rating, creator_id)
VALUES('1', 'Steins;Gate', '23', date'2009-09-26', '8.19', '1');

INSERT INTO Manga(manga_id, manga_title, chapters, release_date, rating, creator_id)
VALUES('2', 'Bleach', '705', date'2001-08-07', '7.71', '2');

INSERT INTO Manga(manga_id, manga_title, chapters, release_date, rating, creator_id)
```

```
VALUES('3', 'One Piece', '941', date'1997-07-22', '9.07', '3');

INSERT INTO Manga(manga_id, manga_title, chapters, release_date, rating, creator_id)
VALUES('4', 'Dragon Ball', '519', date'2015-06-20', '7.41', '4');

INSERT INTO Manga(manga_id, manga_title, chapters, release_date, rating, creator_id)
VALUES('5', 'Black Clover', '203', date'2015-02-16', '7.59', '5');

/*
Studio Test Data
*/
INSERT INTO Studio(studio_id, studio_name, location)
VALUES('1', 'White Fox', 'Tokyo');

INSERT INTO Studio(studio_id, studio_name, location)
VALUES('2', 'Studio Pierrot', 'Tokyo');

INSERT INTO Studio(studio_id, studio_name, location)
VALUES('3', 'Toei Animation', 'Tokyo');

INSERT INTO Studio(studio_id, studio_name, location)
VALUES('4', 'Madhouse', 'Tokyo');

INSERT INTO Studio(studio_id, studio_name, location)
VALUES('5', 'TNK', 'Nerima');

/*
Genre Test Data
```

```
*/
INSERT INTO Genre(genre, description)
VALUES('Action', 'fights, speed...');

INSERT INTO Genre(genre, description)
VALUES('Adventure', 'traveling across places...');

INSERT INTO Genre(genre, description)
VALUES('Horror', 'scary...');

INSERT INTO Genre(genre, description)
VALUES('Slice of life', 'everyday life...');

INSERT INTO Genre(genre, description)
VALUES('Fantasy', 'dream-like world...');

/*
Character Test Data
*/
INSERT INTO Character(character_id, first_name, middle_init, last_name, gender, age, type,
hair_color, eye_color)
VALUES('1', 'Monkey', 'D', 'Luffy', 'M', '15', 'Pirate', 'Black', 'Black');

INSERT INTO Character(character_id, first_name, middle_init, last_name, gender, age, type,
hair_color, eye_color)
VALUES('2', 'Ichigo', '', 'Kurosaki', 'M', '15', 'Soul Reaper', 'Orange', 'Orange');

INSERT INTO Character(character_id, first_name, middle_init, last_name, gender, age, type,
hair_color, eye_color)
```

```
VALUES('3', 'Yuno', '', '', 'M', '', 'Wizard', 'Black', 'Yellow');


INSERT INTO Character(character_id, first_name, middle_init, last_name, gender, age, type,
hair_color, eye_color)
VALUES('4', 'Son', '', 'Goku', 'M', '', 'Figter', 'Black', 'Black');


INSERT INTO Character(character_id, first_name, middle_init, last_name, gender, age, type,
hair_color, eye_color)
VALUES('5', 'Asta', '', '', 'M', '', 'Human', 'Grey', 'Green');


/*
User Test Data
*/
INSERT INTO Users(username, first_name, middle_init, last_name, birthday, gender)
VALUES('bobby1', 'Bobby', 'K', 'Yu', date'1997-05-02', 'M');


INSERT INTO Users(username, first_name, middle_init, last_name, birthday, gender)
VALUES('bob2', 'Bob', '', 'Rob', date'2001-06-05', 'M');


INSERT INTO Users(username, first_name, middle_init, last_name, birthday, gender)
VALUES('tanash', 'Leroy', '', 'Jenkins', date'1989-04-26', 'M');


INSERT INTO Users(username, first_name, middle_init, last_name, birthday, gender)
VALUES('coolgamer2', 'Jen', 'K', 'Jane', date'1996-05-02', 'F');


INSERT INTO Users(username, first_name, middle_init, last_name, birthday, gender)
VALUES('yayeet', 'Alexis', '', 'King', date'1965-05-04', 'O');
```

```
/*
GM_Bridge Test Data
*/
INSERT INTO GM_Bridge(genre, manga_id)
VALUES('Action', '5');

INSERT INTO GM_Bridge(genre, manga_id)
VALUES('Adventure', '5');

INSERT INTO GM_Bridge(genre, manga_id)
VALUES('Horror', '2');

INSERT INTO GM_Bridge(genre, manga_id)
VALUES('Slice of life', '1');

INSERT INTO GM_Bridge(genre, manga_id)
VALUES('Fantasy', '1');


/*
GA_Bridge Test Data
*/
INSERT INTO GA_Bridge(genre, anime_id)
VALUES('Action', '5');

INSERT INTO GA_Bridge(genre, anime_id)
VALUES('Adventure', '5');
```

```
INSERT INTO GA_Bridge(genre, anime_id)
VALUES('Horror', '2');

INSERT INTO GA_Bridge(genre, anime_id)
VALUES('Slice of life', '1');

INSERT INTO GA_Bridge(genre, anime_id)
VALUES('Fantasy', '5');

/*
AU_Bridge Test Data
*/
INSERT INTO AU_Bridge(anime_id, username)
VALUES('1', 'bobby1');

INSERT INTO AU_Bridge(anime_id, username)
VALUES('2', 'bobby1');

INSERT INTO AU_Bridge(anime_id, username)
VALUES('3', 'bobby1');

INSERT INTO AU_Bridge(anime_id, username)
VALUES('2', 'bob2');

INSERT INTO AU_Bridge(anime_id, username)
VALUES('2', 'tanash');
```

```
/*
AC_Bridge Test Data
*/
INSERT INTO AC_Bridge(anime_id, character_id)
VALUES('1', '1');

INSERT INTO AC_Bridge(anime_id, character_id)
VALUES('2', '1');

INSERT INTO AC_Bridge(anime_id, character_id)
VALUES('2', '2');

INSERT INTO AC_Bridge(anime_id, character_id)
VALUES('2', '3');

INSERT INTO AC_Bridge(anime_id, character_id)
VALUES('3', '4');

/*
AS_Bridge Test Data
*/
INSERT INTO AS_Bridge(anime_id, studio_id)
VALUES('3', '3');

INSERT INTO AS_Bridge(anime_id, studio_id)
VALUES('4', '3');

INSERT INTO AS_Bridge(anime_id, studio_id)
```

```
VALUES('2', '2');

INSERT INTO AS_Bridge(anime_id, studio_id)
VALUES('5', '2');

INSERT INTO AS_Bridge(anime_id, studio_id)
VALUES('1', '1');



select * from Anime;
select * from Manga;
select * from Creator;
select * from Studio;
select * from Genre;
select * from Character;
select * from Users;
select * from GM_Bridge;
select * from GA_Bridge;
select * from AU_Bridge;
select * from AC_Bridge;
select * from AS_Bridge;

select anime_id, anime_title as Title, episodes
from Anime
order by episodes DESC;

drop view several;
```

```
create view several as
select Anime.anime_title, Manga.manga_title, Creator.last_name
from Anime, Manga, Creator
where Anime.anime_id=2 AND Manga.manga_id=2 AND Creator.creator_id =2;

select * from several;

create or replace view several as
select Anime.anime_title, Manga.manga_title, Creator.first_name, Creator.last_name
from Anime, Manga, Creator
where Anime.anime_id=2 AND Manga.manga_id=2 AND Creator.creator_id =2;

select * from several;

*/ mechanism to prevent duplicate primary keys*/
INSERT INTO Character(character_id, first_name, middle_init, last_name, gender, age, type,
hair_color, eye_color)
VALUES('1', 'Monkey', 'D', 'Luffy', 'M', '15', 'Pirate', 'Black', 'Black');


SET ECHO OFF
SPOOL OFF
```

Output

```
SQL>

SQL>

SQL> SET LINESIZE 32767

SQL> SET TRIMSPOOL ON

SQL> SET TRIMOUT ON

SQL> /*

SQL>Anime Test Data

SQL>*/

SQL> INSERT INTO Anime(anime_id, anime_title, episodes, release_date, rating)

  2  VALUES(1, 'Steins;Gate', 24, date'2011-04-06', 9.13);


1 row inserted.


SQL>

SQL> INSERT INTO Anime(anime_id, anime_title, episodes, release_date, rating)

  2  VALUES('2', 'Bleach', '366', date'2004-10-05', '7.88');


1 row inserted.


SQL>

SQL> INSERT INTO Anime(anime_id, anime_title, episodes, release_date, rating)

  2  VALUES('3', 'One Piece', '867', date'1999-05-20', '8.53');


1 row inserted.


SQL>

SQL> INSERT INTO Anime(anime_id, anime_title, episodes, release_date, rating)
```

```
  2  VALUES('4', 'Dragonball Z', '291', date'1989-04-26', '8.29');

1 row inserted.

SQL>
SQL> INSERT INTO Anime(anime_id, anime_title, episodes, release_date, rating)
  2  VALUES('5', 'Black Clover', '88', date'2017-10-3', '7.00');

1 row inserted.

SQL>
SQL> /*
SQL>Creator Test Data
SQL>*/
SQL> INSERT INTO Creator(creator_id, first_name, middle_init, last_name, age)
  2  VALUES('1', 'Yomi', 'J', 'Sarachi', '35');

1 row inserted.

SQL>
SQL> INSERT INTO Creator(creator_id, first_name, middle_init, last_name, age)
  2  VALUES('2', 'Tite', '', 'Kubo', '41');

1 row inserted.

SQL>
SQL> INSERT INTO Creator(creator_id, first_name, middle_init, last_name, age)
  2  VALUES('3', 'Oda', '', 'Eiichiro', '44');
```

```
1 row inserted.

SQL>
SQL> INSERT INTO Creator(creator_id, first_name, middle_init, last_name, age)
  2  VALUES('4', 'Akira', '', 'Toriyama', '64');

1 row inserted.

SQL>
SQL> INSERT INTO Creator(creator_id, first_name, middle_init, last_name, age)
  2  VALUES('5', 'Yuuki', '', 'Tabata', '34');

1 row inserted.

SQL>
SQL> /*
SQL>Manga Test Data
SQL>*/
SQL> INSERT INTO Manga(manga_id, manga_title, chapters, release_date, rating, creator_id)
  2  VALUES('1', 'Steins;Gate', '23', date'2009-09-26', '8.19', '1');

1 row inserted.

SQL>
SQL> INSERT INTO Manga(manga_id, manga_title, chapters, release_date, rating, creator_id)
  2  VALUES('2', 'Bleach', '705', date'2001-08-07', '7.71', '2');
```

```
1 row inserted.

SQL>
SQL> INSERT INTO Manga(manga_id, manga_title, chapters, release_date, rating, creator_id)
  2  VALUES('3', 'One Piece', '941', date'1997-07-22', '9.07', '3');

1 row inserted.

SQL>
SQL> INSERT INTO Manga(manga_id, manga_title, chapters, release_date, rating, creator_id)
  2  VALUES('4', 'Dragon Ball', '519', date'2015-06-20', '7.41', '4');

1 row inserted.

SQL>
SQL> INSERT INTO Manga(manga_id, manga_title, chapters, release_date, rating, creator_id)
  2  VALUES('5', 'Black Clover', '203', date'2015-02-16', '7.59', '5');

1 row inserted.

SQL>
SQL> /*
SQL>Studio Test Data
SQL>*/
SQL> INSERT INTO Studio(studio_id, studio_name, location)
  2  VALUES('1', 'White Fox', 'Tokyo');

1 row inserted.
```

```
SQL>
SQL> INSERT INTO Studio(studio_id, studio_name, location)
  2  VALUES('2', 'Studio Pierrot', 'Tokyo');

1 row inserted.

SQL>
SQL> INSERT INTO Studio(studio_id, studio_name, location)
  2  VALUES('3', 'Toei Animation', 'Tokyo');

1 row inserted.

SQL>
SQL> INSERT INTO Studio(studio_id, studio_name, location)
  2  VALUES('4', 'Madhouse', 'Tokyo');

1 row inserted.

SQL>
SQL> INSERT INTO Studio(studio_id, studio_name, location)
  2  VALUES('5', 'TNK', 'Nerima');

1 row inserted.

SQL>
SQL> /*
SQL>Genre Test Data
```

```
SQL>*/
SQL> INSERT INTO Genre(genre, description)
  2  VALUES('Action', 'fights, speed...');

1 row inserted.

SQL>
SQL> INSERT INTO Genre(genre, description)
  2  VALUES('Adventure', 'traveling across places...');

1 row inserted.

SQL>
SQL> INSERT INTO Genre(genre, description)
  2  VALUES('Horror', 'scary...');

1 row inserted.

SQL>
SQL> INSERT INTO Genre(genre, description)
  2  VALUES('Slice of life', 'everyday life...');

1 row inserted.

SQL>
SQL> INSERT INTO Genre(genre, description)
  2  VALUES('Fantasy', 'dream-like world...');
```

```
1 row inserted.


SQL>

SQL> /*

SQL>Character Test Data

SQL>*/

SQL> INSERT INTO Character(character_id, first_name, middle_init, last_name, gender, age,
type, hair_color, eye_color)

  2  VALUES('1', 'Monkey', 'D', 'Luffy', 'M', '15', 'Pirate', 'Black', 'Black');


1 row inserted.


SQL>

SQL> INSERT INTO Character(character_id, first_name, middle_init, last_name, gender, age,
type, hair_color, eye_color)

  2  VALUES('2', 'Ichigo', '', 'Kurosaki', 'M', '15', 'Soul Reaper', 'Orange', 'Orange');


1 row inserted.


SQL>

SQL> INSERT INTO Character(character_id, first_name, middle_init, last_name, gender, age,
type, hair_color, eye_color)

  2  VALUES('3', 'Yuno', '', '', 'M', '', 'Wizard', 'Black', 'Yellow');


1 row inserted.


SQL>

SQL> INSERT INTO Character(character_id, first_name, middle_init, last_name, gender, age,
type, hair_color, eye_color)

  2  VALUES('4', 'Son', '', 'Goku', 'M', '', 'Figter', 'Black', 'Black');
```

```
1 row inserted.

SQL>

SQL> INSERT INTO Character(character_id, first_name, middle_init, last_name, gender, age,
type, hair_color, eye_color)
  2  VALUES('5', 'Asta', '', '', 'M', '', 'Human', 'Grey', 'Green');

1 row inserted.

SQL>

SQL> /*

SQL>User Test Data

SQL>*/

SQL> INSERT INTO Users(username, first_name, middle_init, last_name, birthday, gender)
  2  VALUES('bobby1', 'Bobby', 'K', 'Yu', date'1997-05-02', 'M');

1 row inserted.

SQL>

SQL> INSERT INTO Users(username, first_name, middle_init, last_name, birthday, gender)
  2  VALUES('bob2', 'Bob', '', 'Rob', date'2001-06-05', 'M');

1 row inserted.

SQL>

SQL> INSERT INTO Users(username, first_name, middle_init, last_name, birthday, gender)
  2  VALUES('tanash', 'Leroy', '', 'Jenkins', date'1989-04-26', 'M');
```

```
1 row inserted.

SQL>
SQL> INSERT INTO Users(username, first_name, middle_init, last_name, birthday, gender)
  2  VALUES('coolgamer2', 'Jen', 'K', 'Jane', date'1996-05-02', 'F');

1 row inserted.

SQL>
SQL> INSERT INTO Users(username, first_name, middle_init, last_name, birthday, gender)
  2  VALUES('yayeet', 'Alexis', '', 'King', date'1965-05-04', 'O');

1 row inserted.

SQL>
SQL>
SQL> /*
SQL>GM_Bridge Test Data
SQL>*/
SQL> INSERT INTO GM_Bridge(genre, manga_id)
  2  VALUES('Action', '5');

1 row inserted.

SQL>
SQL> INSERT INTO GM_Bridge(genre, manga_id)
  2  VALUES('Adventure', '5');
```

```
1 row inserted.

SQL>
SQL> INSERT INTO GM_Bridge(genre, manga_id)
  2  VALUES('Horror', '2');

1 row inserted.

SQL>
SQL> INSERT INTO GM_Bridge(genre, manga_id)
  2  VALUES('Slice of life', '1');

1 row inserted.

SQL>
SQL> INSERT INTO GM_Bridge(genre, manga_id)
  2  VALUES('Fantasy', '1');

1 row inserted.

SQL>
SQL>
SQL> /*
SQL>GA_Bridge Test Data
SQL>*/
SQL> INSERT INTO GA_Bridge(genre, anime_id)
  2  VALUES('Action', '5');
```

```
1 row inserted.

SQL>
SQL> INSERT INTO GA_Bridge(genre, anime_id)
  2  VALUES('Adventure', '5');

1 row inserted.

SQL>
SQL> INSERT INTO GA_Bridge(genre, anime_id)
  2  VALUES('Horror', '2');

1 row inserted.

SQL>
SQL> INSERT INTO GA_Bridge(genre, anime_id)
  2  VALUES('Slice of life', '1');

1 row inserted.

SQL>
SQL> INSERT INTO GA_Bridge(genre, anime_id)
  2  VALUES('Fantasy', '5');

1 row inserted.

SQL>
SQL> /*
```

```
SQL>AU_Bridge Test Data
SQL>*/
SQL> INSERT INTO AU_Bridge(anime_id, username)
  2  VALUES('1', 'bobby1');

1 row inserted.

SQL>
SQL> INSERT INTO AU_Bridge(anime_id, username)
  2  VALUES('2', 'bobby1');

1 row inserted.

SQL>
SQL> INSERT INTO AU_Bridge(anime_id, username)
  2  VALUES('3', 'bobby1');

1 row inserted.

SQL>
SQL> INSERT INTO AU_Bridge(anime_id, username)
  2  VALUES('2', 'bob2');

1 row inserted.

SQL>
SQL> INSERT INTO AU_Bridge(anime_id, username)
  2  VALUES('2', 'tanash');
```

```
1 row inserted.

SQL>
SQL>
SQL> /*
SQL>AC_Bridge Test Data
SQL>*/
SQL> INSERT INTO AC_Bridge(anime_id, character_id)
  2  VALUES('1', '1');

1 row inserted.

SQL>
SQL> INSERT INTO AC_Bridge(anime_id, character_id)
  2  VALUES('2', '1');

1 row inserted.

SQL>
SQL> INSERT INTO AC_Bridge(anime_id, character_id)
  2  VALUES('2', '2');

1 row inserted.

SQL>
SQL> INSERT INTO AC_Bridge(anime_id, character_id)
  2  VALUES('2', '3');
```

```
1 row inserted.

SQL>
SQL> INSERT INTO AC_Bridge(anime_id, character_id)
  2  VALUES('3', '4');

1 row inserted.

SQL>
SQL> /*
SQL>AS_Bridge Test Data
SQL>*/
SQL> INSERT INTO AS_Bridge(anime_id, studio_id)
  2  VALUES('3', '3');

1 row inserted.

SQL>
SQL> INSERT INTO AS_Bridge(anime_id, studio_id)
  2  VALUES('4', '3');

1 row inserted.

SQL>
SQL> INSERT INTO AS_Bridge(anime_id, studio_id)
  2  VALUES('2', '2');
```

```
1 row inserted.

SQL>
SQL> INSERT INTO AS_Bridge(anime_id, studio_id)
  2  VALUES('5', '2');

1 row inserted.

SQL>
SQL> INSERT INTO AS_Bridge(anime_id, studio_id)
  2  VALUES('1', '1');

1 row inserted.

SQL>
SQL>
SQL> select * from Anime;

  ANIME_ID ANIME_TITLE    EPISODES RELEASE_D     RATING
---------- ------------ ---------- --------- ----------
         1 Steins;Gate          24 06-APR-11          9
         2 Bleach              366 05-OCT-04          8
         3 One Piece           867 20-MAY-99          9
         4 Dragonball Z        291 26-APR-89          8
         5 Black Clover         88 03-OCT-17          7

SQL> select * from Manga;
```

```
 MANGA_ID MANGA_TITLE    CHAPTERS RELEASE_D     RATING CREATOR_ID
---------- ------------ ---------- --------- ---------- ----------
         1 Steins;Gate          23 26-SEP-09          8          1
         2 Bleach              705 07-AUG-01          8          2
         3 One Piece           941 22-JUL-97          9          3
         4 Dragon Ball         519 20-JUN-15          7          4
         5 Black Clover        203 16-FEB-15          8          5
```

```
SQL> select * from Creator;

CREATOR_ID FIRST_NAME    M LAST_NAME           AGE
---------- ------------ - ------------ ----------
         1 Yomi         J Sarachi              35
         2 Tite           Kubo                 41
         3 Oda            Eiichiro             44
         4 Akira          Toriyama             64
         5 Yuuki          Tabata               34
```

```
SQL> select * from Studio;

 STUDIO_ID STUDIO_NAME         LOCATION
---------- -------------------- --------------------
         1 White Fox            Tokyo
         2 Studio Pierrot       Tokyo
         3 Toei Animation       Tokyo
         4 Madhouse             Tokyo
         5 TNK                  Nerima
```

SQL> select * from Genre;

GENRE DESCRIPTION

--- ---

Action fights, speed...

Adventure traveling across places...

Horror scary...

Slice of life everyday life...

Fantasy dream-like world...

SQL> select * from Character;

CHARACTER_ID FIRST_NAME M LAST_NAME G AGE TYPE HAIR_COLOR EYE_COLOR

--- --- - --- - --- --- --- ---

1 Monkey D Luffy M 15 Pirate Black Black

2 Ichigo Kurosaki M 15 Soul Reaper Orange Orange

3 Yuno M Wizard Black Yellow

4 Son Goku M Figter Black Black

5 Asta M Human Grey Green

SQL> select * from Users;

USERNAME FIRST_NAME M LAST_NAME BIRTHDAY G

--- --- - --- --- -

bobby1 Bobby K Yu 02-MAY-97 M

bob2 Bob Rob 05-JUN-01 M

tanash Leroy Jenkins 26-APR-89 M

coolgamer2 Jen K Jane 02-MAY-96 F

yayeet Alexis King 04-MAY-65 O

SQL> select * from GM_Bridge;

GENRE MANGA_ID

--- ---

Action 5

Adventure 5

Horror 2

Slice of life 1

Fantasy 1

SQL> select * from GA_Bridge;

GENRE ANIME_ID

--- ---

Action 5

Adventure 5

Horror 2

Slice of life 1

Fantasy 5

SQL> select * from AU_Bridge;

ANIME_ID USERNAME

--- ---

1 bobby1

2 bobby1

3 bobby1

2 bob2

2 tanash

SQL> select * from AC_Bridge;

```
  ANIME_ID CHARACTER_ID
---------- ------------
         1            1
         2            1
         2            2
         2            3
         3            4
```

SQL> select * from AS_Bridge;

```
  ANIME_ID  STUDIO_ID
---------- ----------
         3          3
         4          3
         2          2
         5          2
         1          1
```

SQL>

```
SQL> select anime_id, anime_title as Title, episodes
  2  from Anime
  3  order by episodes DESC;
```

```
  ANIME_ID TITLE          EPISODES
---------- ------------ ----------
         3 One Piece           867
         2 Bleach              366
         4 Dragonball Z        291
         5 Black Clover         88
         1 Steins;Gate          24

SQL>
SQL> drop view several;

View SEVERAL dropped.

SQL>
SQL> create view several as
  2  select Anime.anime_title, Manga.manga_title, Creator.last_name
  3  from Anime, Manga, Creator
  4  where Anime.anime_id=2 AND Manga.manga_id=2 AND Creator.creator_id =2;

View SEVERAL created.

SQL>
SQL> select * from several;

ANIME_TITLE  MANGA_TITLE  LAST_NAME
------------ ------------ ------------
Bleach       Bleach       Kubo
```

```
SQL>
SQL> create or replace view several as
  2  select Anime.anime_title, Manga.manga_title, Creator.first_name, Creator.last_name
  3  from Anime, Manga, Creator
  4  where Anime.anime_id=2 AND Manga.manga_id=2 AND Creator.creator_id =2;

View SEVERAL created.

SQL>
SQL> select * from several;

ANIME_TITLE  MANGA_TITLE  FIRST_NAME   LAST_NAME
------------ ------------ ------------ ------------
Bleach       Bleach       Tite         Kubo

SQL>
SQL> */ mechanism to prevent duplicate primary keys*/

Error starting at line : 262 File @ M:\csis3222\proj\AnimeManipulation.sql
In command -
*/ mechanism to prevent duplicate primary keys*/
Error report -
Unknown Command

SQL> INSERT INTO Character(character_id, first_name, middle_init, last_name, gender, age,
type, hair_color, eye_color)
  2  VALUES('1', 'Monkey', 'D', 'Luffy', 'M', '15', 'Pirate', 'Black', 'Black');
```

Error starting at line : 263 File @ M:\csis3222\proj\AnimeManipulation.sql

In command -

INSERT INTO Character(character_id, first_name, middle_init, last_name, gender, age, type, hair_color, eye_color)

VALUES('1', 'Monkey', 'D', 'Luffy', 'M', '15', 'Pirate', 'Black', 'Black')

Error report -

ORA-00001: unique constraint (CSIS3222_LOPEZK8.SYS_C00249915) violated

SQL>

SQL>

SQL> SET ECHO OFF

SQL queries

Scripts

```
SPOOL Output-AnimeQueries.txt
--SPOOL Output.txt APPEND
SET ECHO ON


SET LINESIZE 32767
SET TRIMSPOOL ON
SET TRIMOUT ON

/* 1. List Anime by Episodes in descending order */
select anime_title
from Anime
Order by Episodes DESC;

/* 2. Get anime id that a character belongs to */
select anime_id
from AC_Bridge
where AC_Bridge.character_id=1;

/* 3. Calulate age of a User from their birthday */
select first_name, last_name, floor(months_between(sysdate,birthday)/12) as Age
from Users;


/* 4.  */
```

/* 5. */

/* 6. */

/* 7. */

/* 8. */

/* 9. */

/* 10. */

SET ECHO OFF

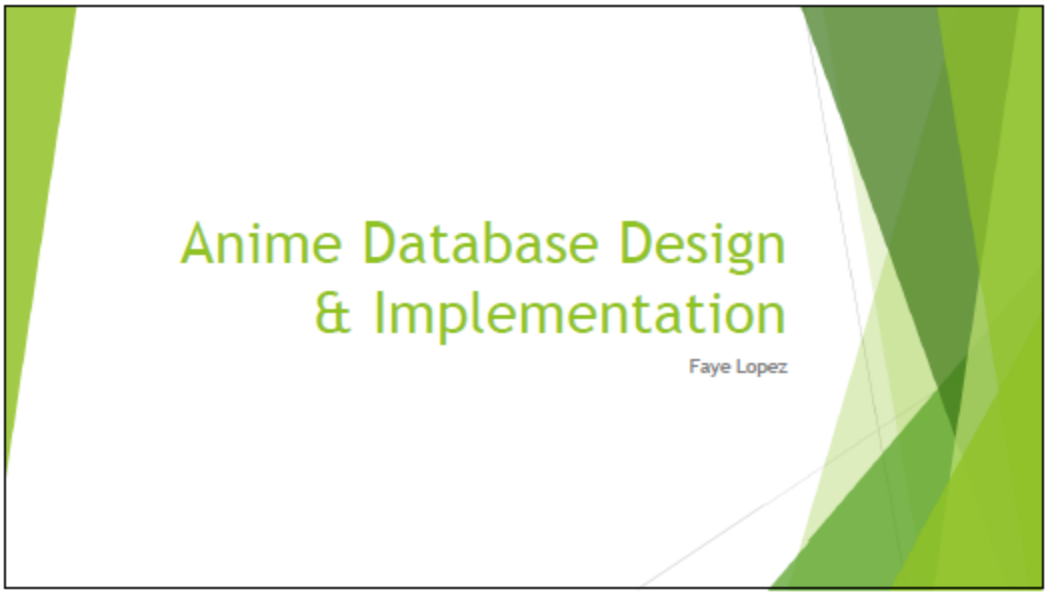
SPOOL OFF

Output

```
SPOOL Output-AnimeQueries.txt
--SPOOL Output.txt APPEND
SET ECHO ON


SET LINESIZE 32767
SET TRIMSPOOL ON
SET TRIMOUT ON

/* 1. List Anime by Episodes in descending order */
select anime_title
from Anime
Order by Episodes DESC;

/* 2. Get anime id that a character belongs to */
select anime_id
from AC_Bridge
where AC_Bridge.character_id=1;

/* 3. Calulate age of a User from their birthday */
select first_name, last_name, floor(months_between(sysdate,birthday)/12) as Age
from Users;



/* 4.  */

/* 5.  */
```

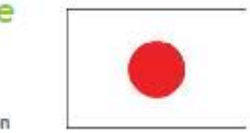
```
/* 6.  */

/* 7.  */

/* 8.  */

/* 9.  */

/* 10.  */

SET ECHO OFF
SPOOL OFF
```

Slides


Anime Database Design
& Implementation
Faye Lopez

Project Intent

A new database for Anime



- Anime is a style of Japanese film and Animation

Merging Three Websites

- cruncyroll.com
- myanimelist.net
- anidb.net

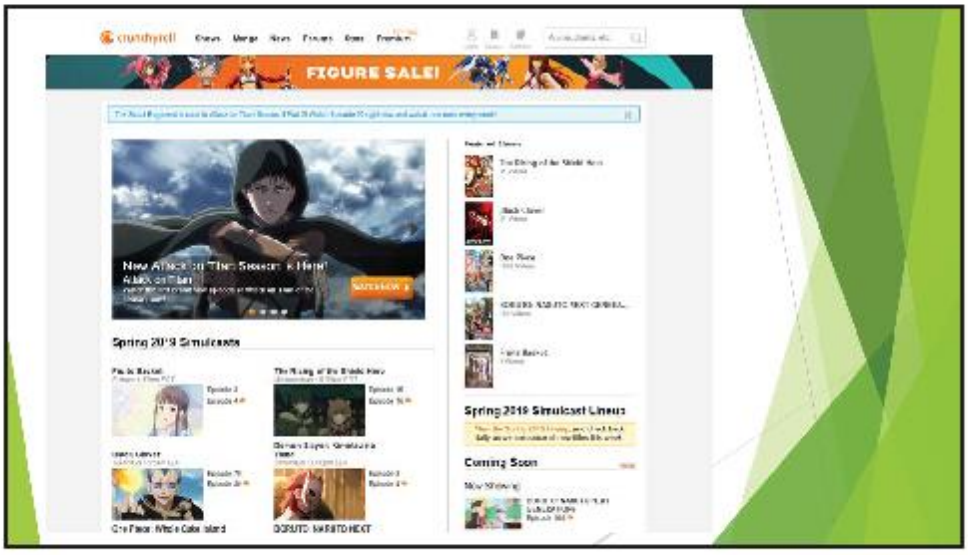
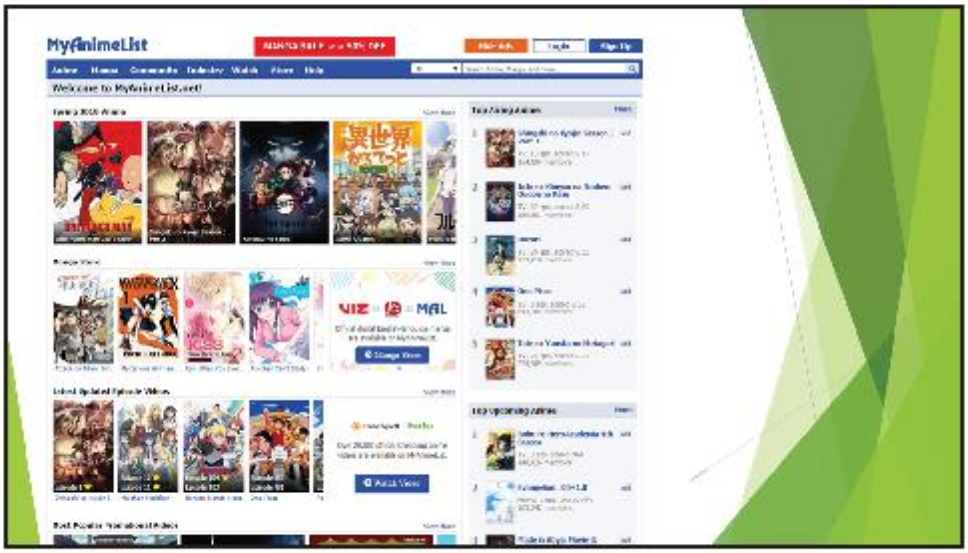


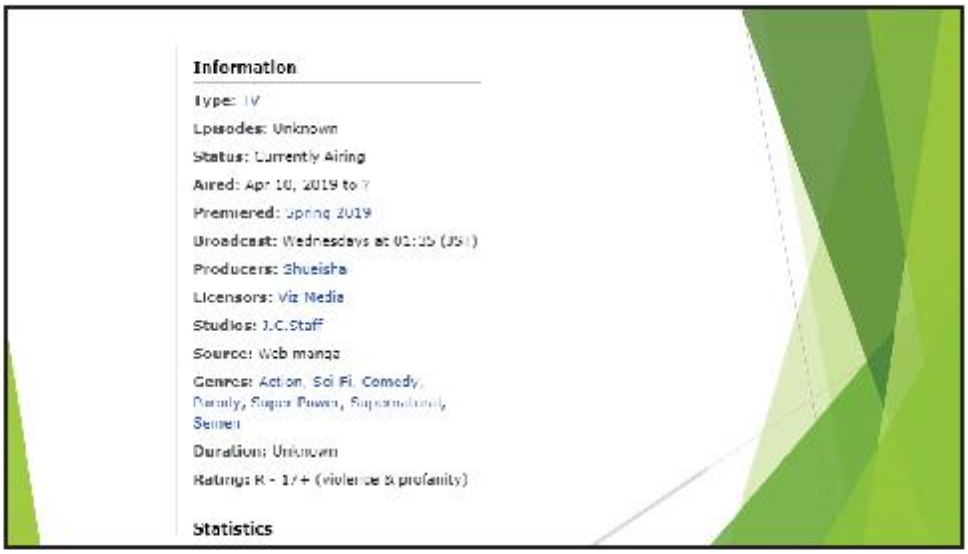
FIGURE SALE!
Spring 2019 Simulcasts
Spring 2019 Simulcast Lineup
Coming Soon

Sign Up for a Free Account
Log In

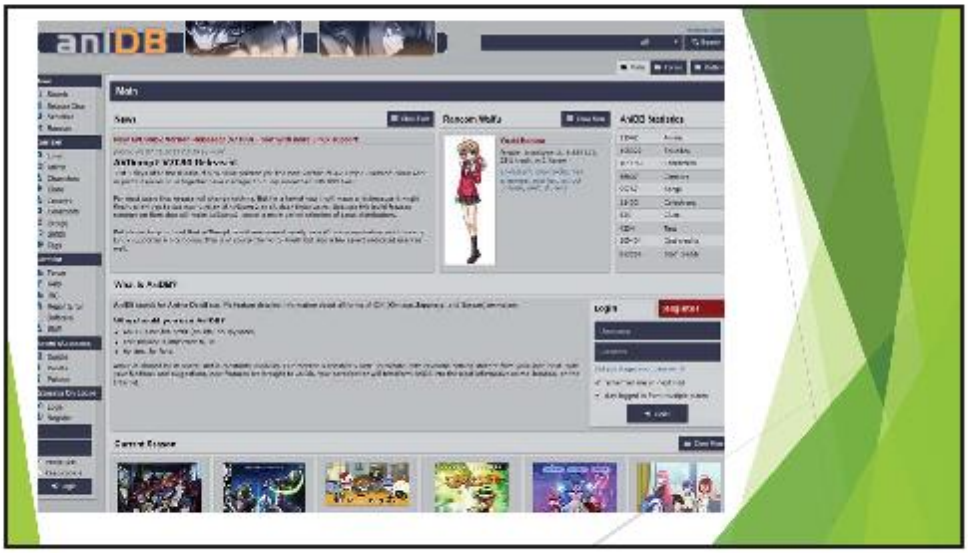
3

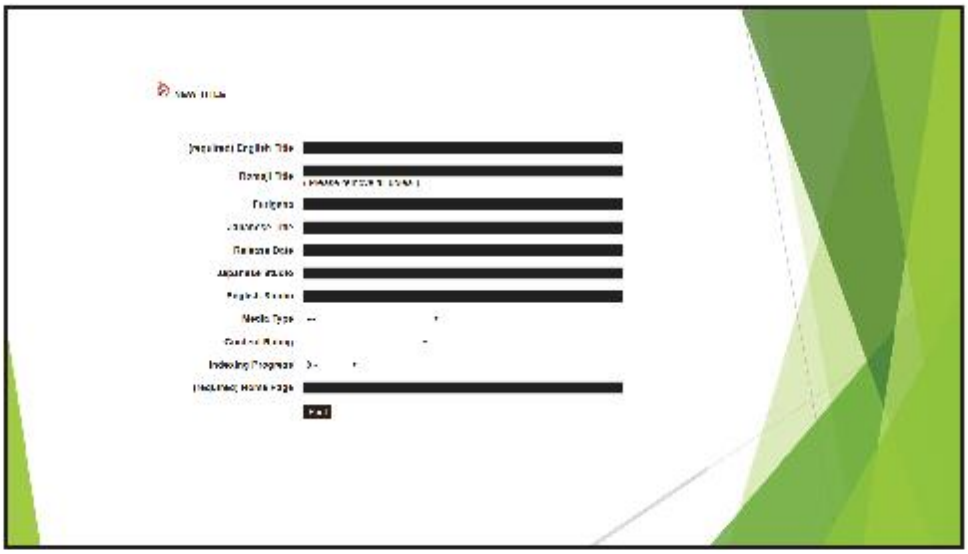
4/28/2019


MyAnimeList
Welcome to MyAnimeList.net!
VIZ
MAL


Information
Type: TV
Episodes: Unknown
Status: Currently Airing
Aired: Apr 10, 2019 to ?
Premiered: Spring 2019
Broadcast: Wednesdays at 01:05 (JST)
Producers: Shueisha
Licensors: Viz Media
Studios: J.C.Staff
Source: Web manga
Genres: Action, Sci Fi, Comedy, Parody, Super Power, Supernatural, Seinen
Duration: Unknown
Rating: R - 17+ (violence & profanity)
Statistics

4


anIDB
Main
News
Random Waifu
AniDB statistics
Login


Main Title
Release Date
Media Type
Indexing Progress

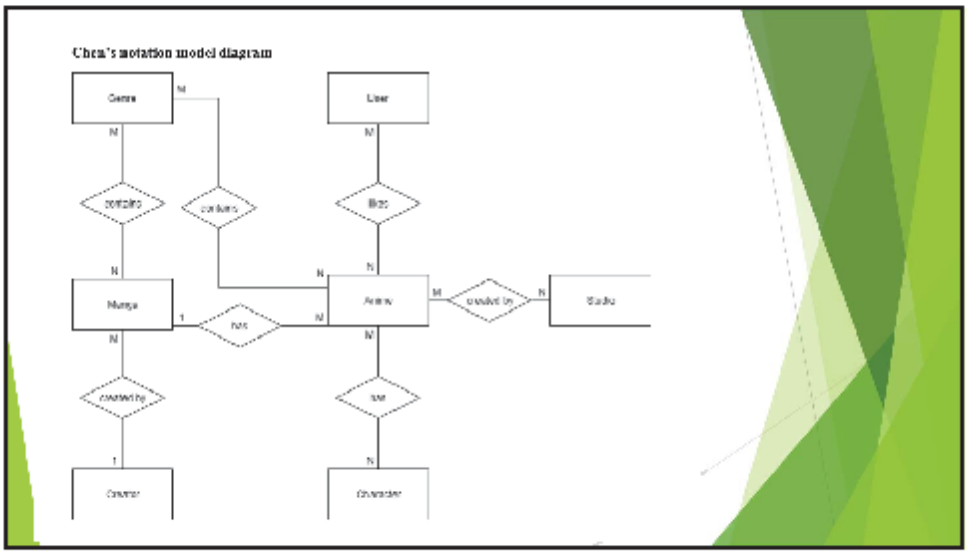
5

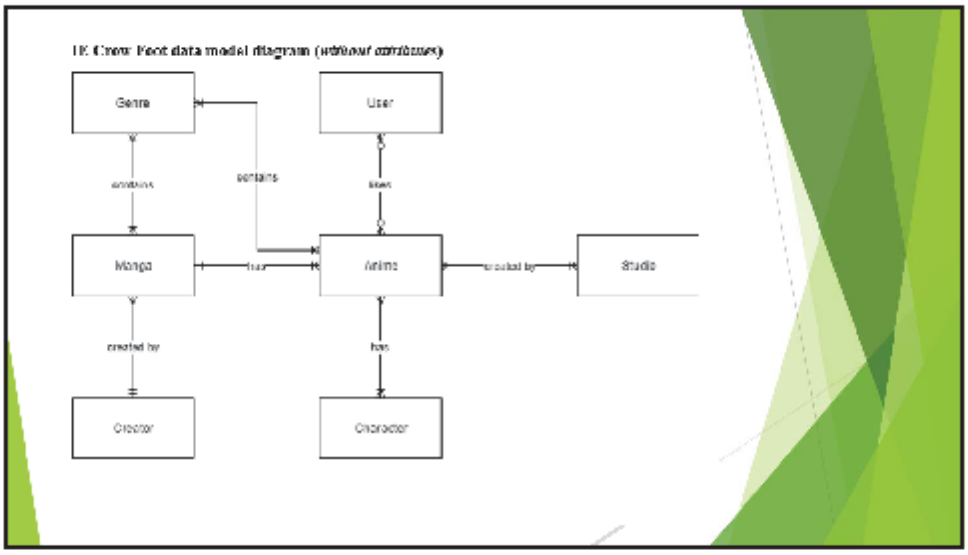
Scope

- Create a database of Anime.
- Relation database design and implementation.
  - Diagrams, sample data forms, prototypes
- More reliable and gets best parts from each website.
- Self-Sustainable.

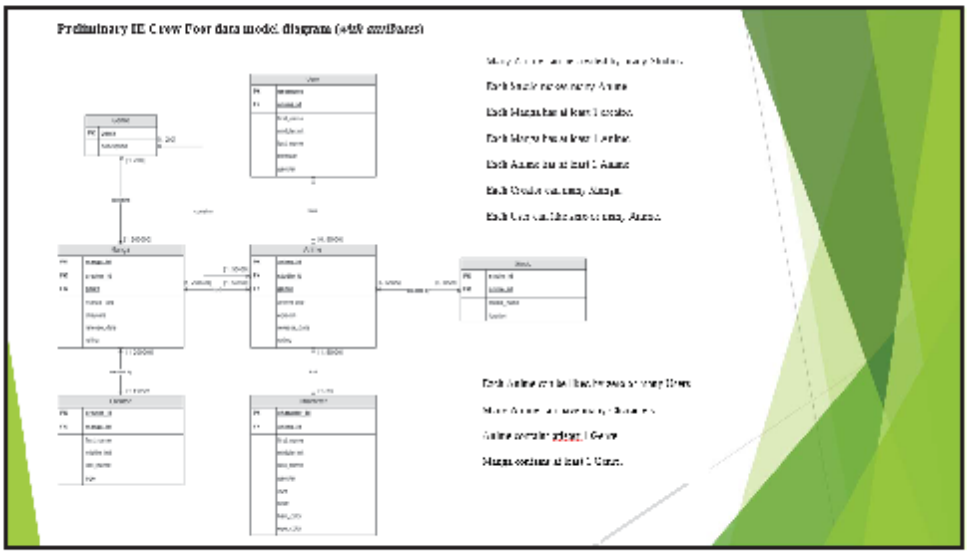
Entities

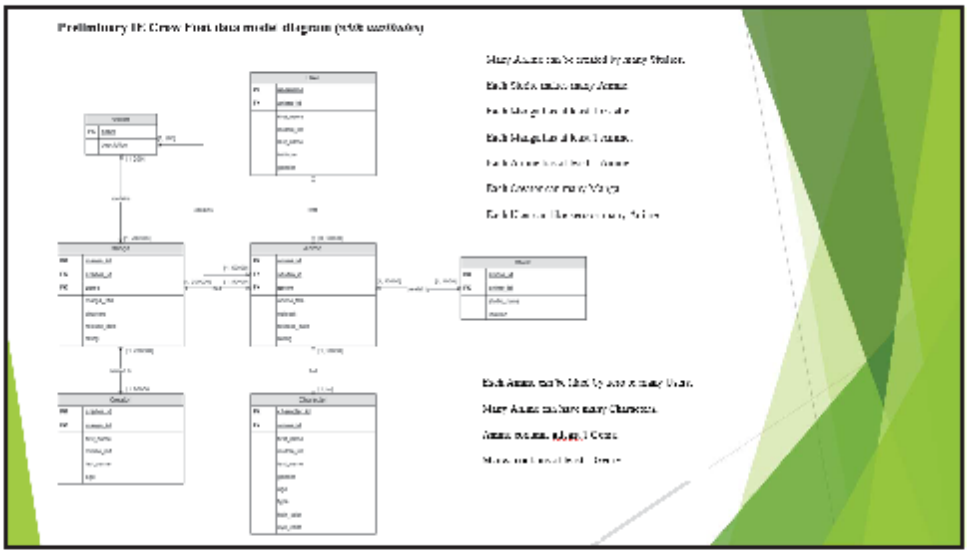
- Anime - the name of the anime and its attributes
- Manga - graphic novels that are usually adapted into anime
- Studio - the company or studio that creates and releases anime adaptations
- Genre - all the different genre types
- Character - characters in anime
- Creator - creators of anime
- User - anime fan account


Chen's notation model diagram
Genre
User
contains
contains
likes
Manga
has
Anime
created by
Studio
created by
has
Creator
Character

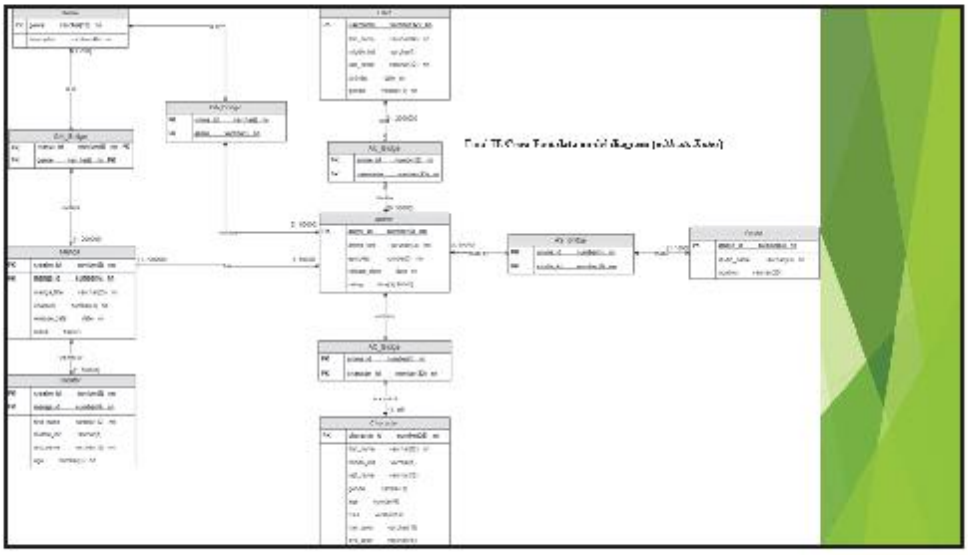

IE Crow Foot data model diagram (without attributes)
Genre
User
contains
contains
likes
Manga
has
Anime
created by
Studio
created by
has
Creator
Character

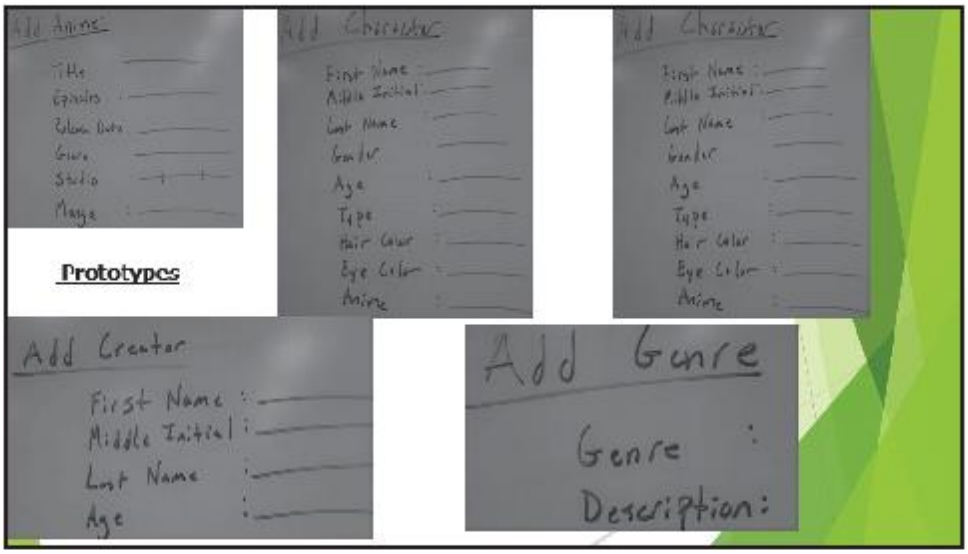
4/28/2019


Preliminary ER Crew Post data model diagram (with attributes)

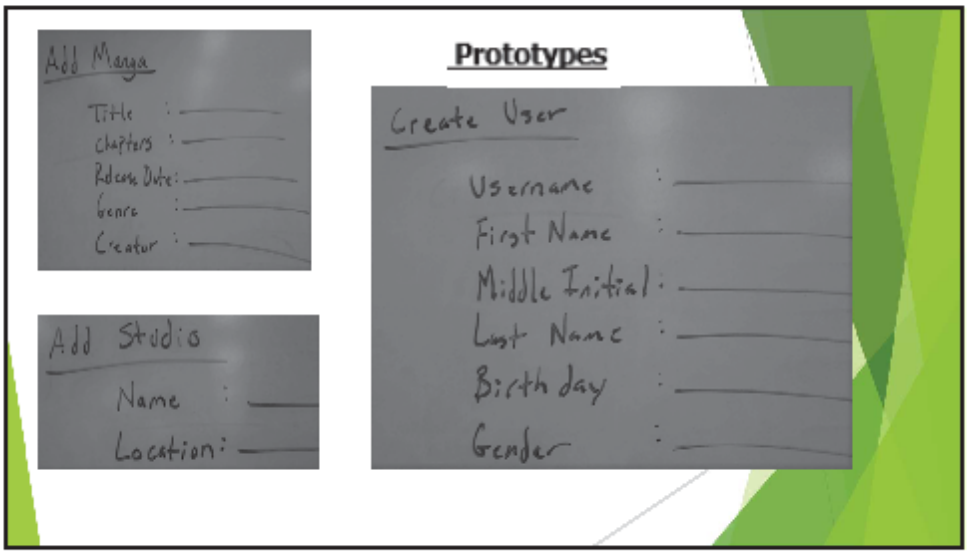

Preliminary ER Crew Post data model diagram (with attributes)

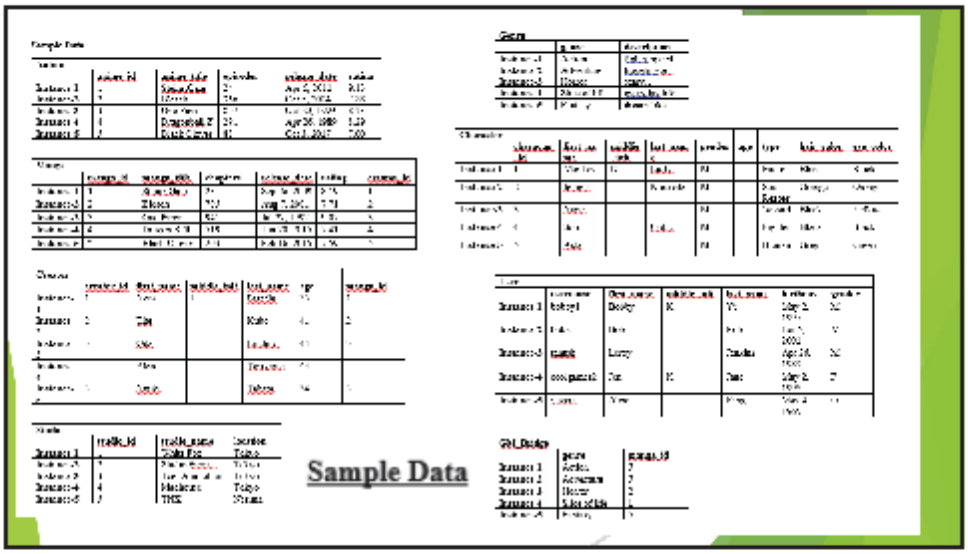
8

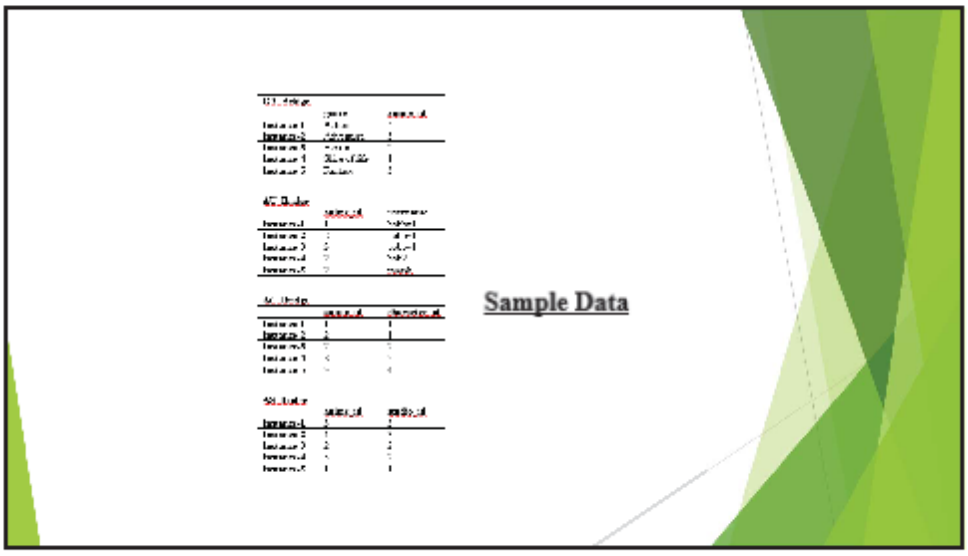


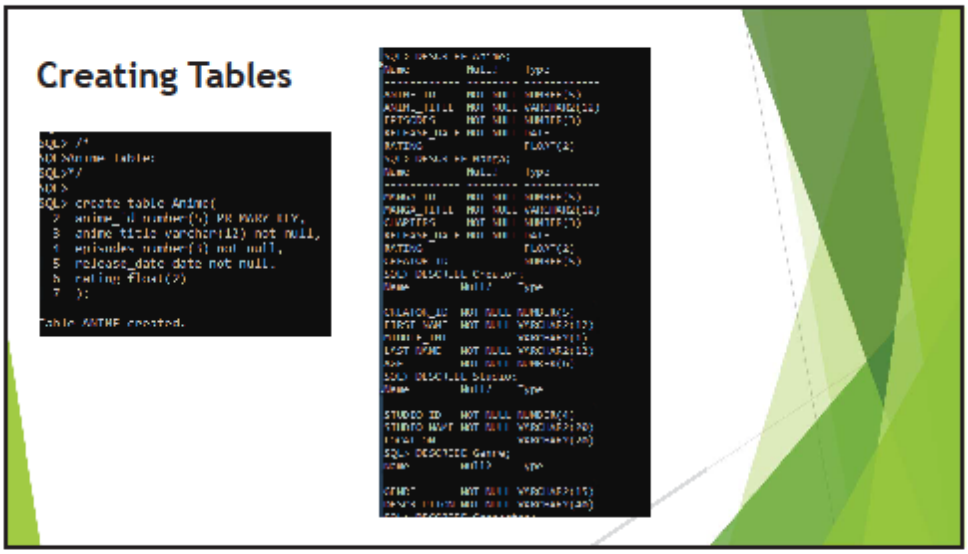

Add Anime
Title
Episodes
Release Date
Genre
Studio
Manga
Add Character
First Name
Middle Initial
Last Name
Gender
Age
Type
Hair Color
Eye Color
Anime
Add Character
First Name
Middle Initial
Last Name
Gender
Age
Type
Hair Color
Eye Color
Anime
Prototypes
Add Creator
First Name
Middle Initial
Last Name
Age
Add Genre
Genre
Description:

9

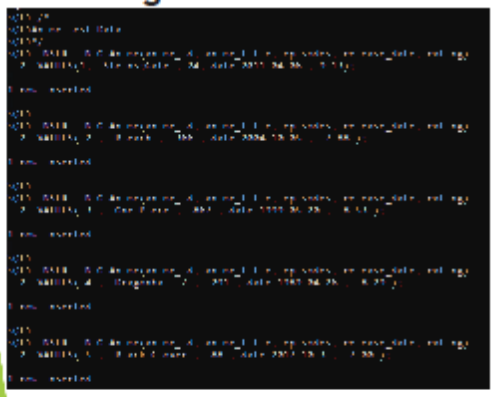

Prototypes
Add Manga
Title :
chapters :
Release Date:
Genre :
Creator :
Add Studio
Name :
Location:
Create User
Username :
First Name :
Middle Initial:
Last Name :
Birth day :
Gender :

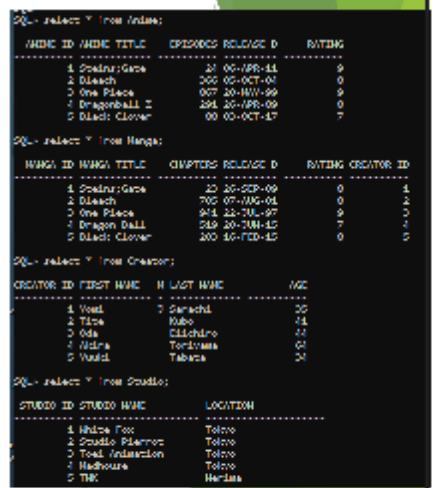

Sample Data


Sample Data


Creating Tables

Inserting Tables





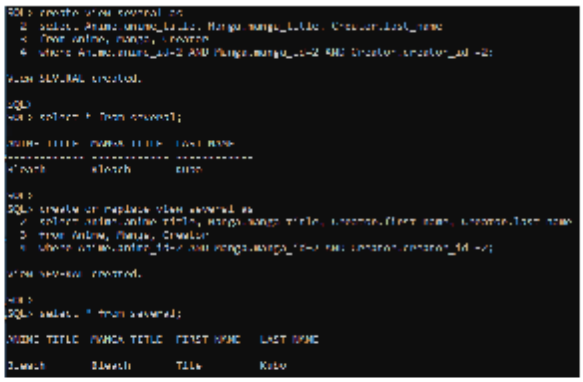
```
SQL> select * from Anime;

  ANIME_ID ANIME_TITLE    EPISODES RELEASE_D     RATING
---------- ------------ ---------- --------- ----------
         1 Steins;Gate          24 06-APR-11          9
         2 Bleach              366 05-OCT-04          0
         3 One Piece           867 20-MAY-99          9
         4 Dragonball Z        291 26-APR-09          0
         5 Black Clover         88 03-OCT-17          7

SQL> select * from Manga;

  MANGA_ID MANGA_TITLE    CHAPTERS RELEASE_D     RATING CREATOR_ID
---------- ------------ ---------- --------- ---------- ----------
         1 Steins;Gate          23 26-SEP-09          0          1
         2 Bleach              705 07-AUG-01          0          2
         3 One Piece           941 22-JUL-97          9          3
         4 Dragon Ball         519 20-JUN-15          7          4
         5 Black Clover        203 16-FEB-15          0          5

SQL> select * from Creator;

CREATOR_ID FIRST_NAME   M LAST_NAME           AGE
---------- ------------ - ------------ ----------
         1 Vomi         J Sarachi              35
         2 Tite           Kubo                 41
         3 Oda            Eiichiro             44
         4 Akira          Toriyama             64
         5 Yuuki          Tabata               34

SQL> select * from Studio;

 STUDIO_ID STUDIO_NAME          LOCATION
---------- -------------------- --------------------
         1 White Fox            Tokyo
         2 Studio Pierrot       Tokyo
         3 Toei Animation       Tokyo
         4 Madhouse             Tokyo
         5 TMS                  Nerima
```

Manipulating Data

```
SQL> select anime_id, anime_title as Title, episodes
  2  from Anime
  3  order by episodes DESC;

  ANIME_ID TITLE          EPISODES

         3 One Piece           867
         2 Bleach              366
         4 Dragonball Z        291
         5 Black Clover         88
         1 Steins;Gate          24
```

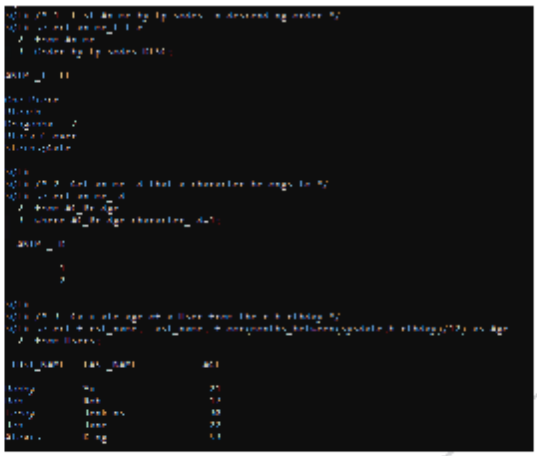
12

Creating Views



Integrity

Queries



End