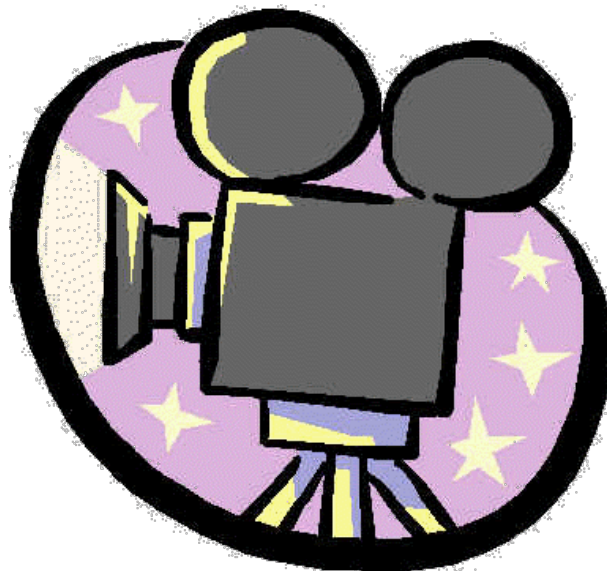


MOVIE MASTER

The Complete Entertainment
Database

Project Report



TEAM NAME – AREA_51

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PROJECT ABSTRACT

Movie Master is an entertainment website that connects users, critics, movie stars and film makers on a single feature filled platform. Our database connects everyone related to the industry, whether it be an actor, a film maker, a director, a production house, a critic or movie goers like us and provides them with different ways to connect, as a result bettering the movie making and watching experience for its users. Our main motivation for the same was to resolve any issues relating to communications that might exist between the aforementioned groups, providing a complete platform for movies. With our project, we hope to better the experience for all our stakeholders with the platform's multiple features.

WEEK 1

Ideation and Finalisation of Stakeholders

Introduction

Movie Master is an entertainment website that connects users, critics, movie stars and film makers on a single feature filled platform. We envision our final product as a social media of sorts – where users can follow other users and critics, people involved in the music industry can come into contact with each other and so on.

Main Goals-

1. Creating an extensive sort-able and filter-able database for the users. The users will be able to select movies to watch in the best manner possible.
2. Users will be allowed to create Lists of Movies and TV Shows, for future references or for showing the world their favourite movies.
3. Users will be allowed to follow other users and access their favourite movies through their various watchlists.

4. Users will be allowed to rate and review movies they watch, and these ratings and reviews would be accessible on the movie's page.
5. Critics will form a special class of users, with their accounts showing off their highest rated movies and reviews, alongside giving their reviews higher weightage in the movie rating algorithm.
6. An awards database will be maintained so that users can look for their favourite awarded movies easily.
7. Actors/Directors/etc will be allowed to maintain specific pages for themselves. These pages would be viewable by users, where they can easily access their best works and awards. They can also maintain their personal data like agent numbers, in search of jobs.
8. Production Houses will be able to maintain their own pages, and will be allowed to see the contact details of film casts, allowing them to scout talents by sending them job offers.

STAKEHOLDERS

- Admin of the Website
- Audience (Users)
- Critics
- Production Houses
- Various people involved with the making of a movie

Member Contributions – All the work was done together and everyone contributed equally to the project and its ideation.

WEEK 2

Role and Queries of Each Stakeholder

1. Admin

The admin is the main maintainer of the website, basically the ones who maintain the database and the various members on it, obtains the stats for it and generates what the general crowd is like.

Queries-

- a. How many users are there on the website?
- b. What are the various demographics for my user?
- c. List down all the actors registered on the website.
- d. Which critics give the highest and the lowest ratings? Order and display.
- e. What are the total number of movies listed on the website.

2. Users

The users are the ones who are registered on to the website as fans and moviegoers. They are the ones who use the website to extract data on specific movies and their actors etc. They can also create watchlists for future and for other users to view, and can follow users and critics.

Queries –

- a. Get me the release date of all my watchlisted movies
- b. Movies with highest critics ratings
- c. Get me all the movies of 'X' genre released in 'Y' year.
- d. Get me all the movies of 'X' actors till date.
- e. Follow a particular user/critic, and view his/her details along with his/her saved watchlists.

3. People involved in making a movie

Actors/Writers/Directors - The ones that go into making a movie. They will maintain their profiles in the website so that they can be approached by production houses who are looking to make new movies, and so that their audience can view their movies and awards that they have won, along with their upcoming movies. They can also accept job offers. They can perform multiple functions as listed below –

- a. What is my average movie rating?
- b. What are my movies? Filter and sort them in different ways.
- c. What are the awards that I have won?
- d. Are there any offers that I have received?
- e. Maintain my person details like agent number.

4. Critics

This is the group of people who will be giving ratings to movies on the website. They will be writing reviews for the movies that come out, and maintaining lists of the

best movies that they have watched for the audiences who follow them to use as recommendations.

Queries –

- a. Add movies to my recommended watchlist.
- b. Get Movies rated by me (critic) overtime
- c. Get my (critic's) number of followers.
- d. Get previous reviews (by other critics) on the film I (critic) am currently reviewing (can be star based (ex , get < 2 rated reviews.))
- e. Get Latest movies (this week/month sorted by top/hot etc.)

5. Production Company

The various production companies who will majorly be dealing with their movies performancy critically and commercially. They will also be recruiting talent for their upcoming movies based on the status that cast members are maintaining on the website.

- a. My Movie Stats(i.e. Ratings, Budget, Box Office)
- b. What are my movie's ratings Over time
- c. Find Prospective actors/directors (Filter queries by different metrics)
- d. Movies and details of other production companies
- e. In production movies (status of each projects, release date, budget etc.)

Member Contributions – All the work was done together and everyone contributed equally to the project and its ideation.

WEEK 3

Formulating the Entities and Relationships and drawing the ER Diagram

Entities –

1. Title

- ID (Primary Key)
- Title
- Description
- Genre (Multivalued Attribute)
- Duration
- Language
- Release Year

2. Movie (Generalised from Title)

(No Extra Attributes)

3. TV Episode (Generalised from Title, Weak Entity)

- ID (from title) (Discriminator Attributes)
- Episode
- Season

4. TV Series

- ID (Primary Key)
- Title
- Language
- Start Year
- End Year
- Number of Episodes

- Number of Seasons

5. Person

- ID (Primary Key)
- Name
- Gender
- Age
- DOB
- Nationality
- Phone Number (Multivalued Attribute)
- Email

6. User

- UserName (Primary Key)
- EmailID
- Nationality

7. Critic (Generalised from User)

- Name
- Age
- Gender

8. TV-Series-List (Weak Entity)

- Name (Discriminator Attributes)
- Date Created

9. Movie-List (Weak Entity)

- Name (Discriminator Attributes)
- Date Created

10. Award

- Name (Primary Key)
- Type (Primary Key)
- Year (Primary Key)

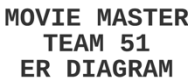
11. Production House

- Name (Primary Key)
- Email ID
- Phone Number (Multivalued Attribute)

Relationships –

- User “Follows” User (M2M) (M2M = Many to Many)
- User “Rates” Title (M2M)
- User “Reviews” Title (M2M)
- User “Rates” TV Series (M2M)
- User “Reviews” TV Series (M2M)
- User “Creates” Movie-List (12M) (12M = One to Many)
- User “Creates” TV-Series-List
- Person “Acts In” Title (M2M)
- Person “Directs” Title (M2M)
- Person “Writes” Title (M2M)
- Person “Receives” Award (M2M)
- Production House “Produces” Movie (12M)
- Production House “Produces” TV Series (12M)
- Movie “Receives” Award (12M)
- TV Series “Receives” Award (12M)
- TV Series “Contains” TV Episode (12M)
- TV-Series-List “Contains” TV Series (M2M)
- Movie-List “Contains” Movies (M2M)

Member Contributions – All the work was done together and everyone contributed equally to the project and its ideation.



WEEK 4&5

Designing the Database Scheme with Integrity Constraints

User –

UserName	varchar(100) not null
Email	Varchar(100) null

Primary Key – UserName

Foreign Key – None

Movie-List –

UserName	varchar(100) not null
ListName	Varchar(100) Not null
Movie_ID	int not null

Primary Key – (UserName, ListName, Movie_ID)

Foreign Key – Movie_ID References Movie(ID)

Movie –

ID	int not null
Title	varchar(100) not null
Duration	int null 'in minutes'
Lang	varchar(50) null
Description	varchar(500) null
Release_Year	year null
Production_House_Name	varchar(100) not null

Primary Key – ID

Foreign Key – Production_House_Name References
Production_House(Name)

Critic –

UserName	varchar(100) not null
Name	varchar(100) not null
Followers	int default 0 not null
Sex	binary(1) null
Nationality	varchar(100) null
Email	varchar(100) null

Primary Key – UserName

Foreign Key - None

Person –

ID	int not null
Name	varchar(100) not null
Sex	binary(1) null
Age	int null
DOB	varchar(10) null
Nationality	varchar(100) null
Email	varchar(100) null
Phone_Number	varchar(10) null

Primary Key – ID

Foreign Key - None

Award –

Name	varchar(100) not null
Type	varchar(100) not null
Year	year null
Person_ID	int null

Movie_ID	int null
TV_Series_ID	int null

Primary Key – (Name, Type, Year)

Foreign Key – Person_ID References Person(ID),

Movie_ID References Movie(ID), TV_Series_ID

References TV_Series(ID)

Person_Phone –

Person_ID	int not null
Number	int null
Country_Code	int null

Primary Key – Person_ID

Foreign Key – Person_ID References Person(ID)

Production_House –

Name	varchar(100) not null
Email	varchar(100) not null

Primary Key – Name

Foreign Key – None

TV_Series –

ID	int not null
----	-----------------

Title	varchar(100) null
Lang	varchar(100) null
Start_Year	year null
End_Year	year null
N_Episodes	int null
N_Seasons	int null
Production_House_Name	varchar(100) null

Primary Key – ID

Foreign Key – Production_House_Name References
Production_House(Name)

TV_Episode –

ID	int not null
Title	varchar(100) null
Duration	int null
Lang	varchar(100) null
Description	varchar(500) null
Season_Number	int null
User_Rating	float

	null
N_User_Rating	int null
Critic_Rating	float null
Release_Year	year null
N_Critic_Rating	int null
Series_ID	int not null
Episode_Number	int null

Primary Key – (ID, Series_ID)

Foreign Key – Series_ID References

TV_Series(ID)

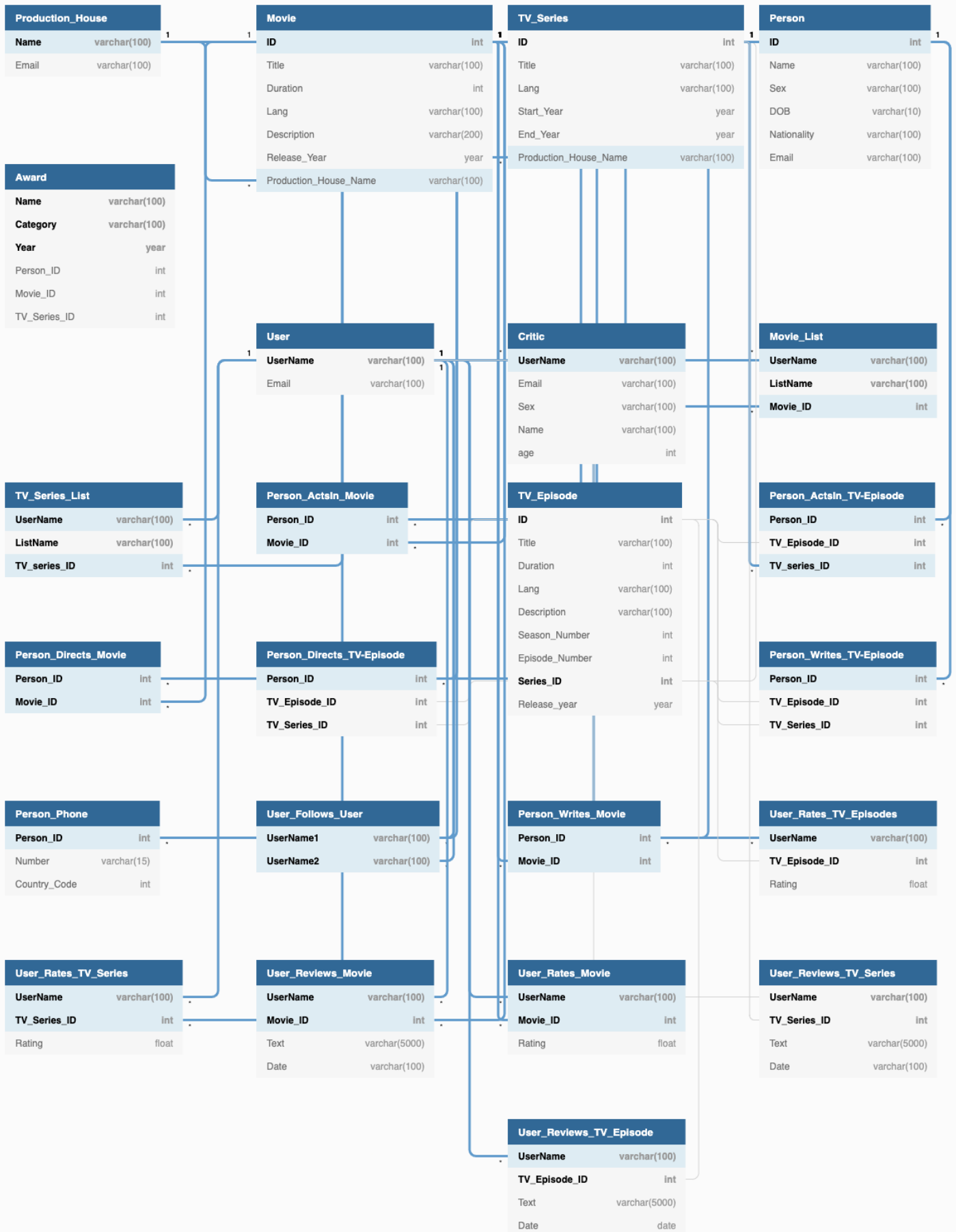
TV_Series_List –

UserName	varchar(100) not null
ListName	varchar(100) not null
TV_Series_ID	int not null

Primary Key – (UserName, ListName,
TV_Series_ID)

Foreign Key – TV_Series_ID References

TV_Series(ID)



Populating Database Tables with Data

All the tables of the database were filled up by meaningful data extracted from movie websites across the internet. We did this by using webscraping and manually depending on the case. Some screenshots from our database –

ID	Title	Duration	Lang	Description	Release_Year	Production_House_Name
1	18223 Das Cabinet des Dr. Caligari	76	None	Hypnotist Dr. Caligari uses a somnambulist, Cesare, to commit	1920	Decla-Bioscop AG
2	12349 The Kid	68	None	The Tramp cares for an abandoned child, but events put that re-	1921	Charles Chaplin Productions
3	15224 Sherlock Jr.	45	None	A film projectionist longs to be a detective, and gets his wish.	1924	Buster Keaton Productions
4	15844 The Bold Rush	95	None	A prospector goes to the Klondike in search of gold and finds	1925	Charles Chaplin Productions
5	17136 Metropolis	153	None	In a futuristic city sharply divided between the working class	1927	Universum Film (UFA)
6	17925 The General	67	None	When Union spies steal an engineer's beloved locomotive, he pu-	1926	Buster Keaton Productions
7	18455 Sunrise: A Song of Two Humans	94	English	An allegorical tale about a man fighting the good and evil wit-	1927	Fox Film Corporation
8	18773 The Circus	72	None	The Tramp finds work and the girl of his dreams at a circus.	1928	Charles Chaplin Productions
9	19704 La passion de Jeanne d'Arc	110	None	In 1412, Jeanne d'Arc is placed on trial on charges of heresy.	1928	Société générale des films
10	21740 City Lights	97	None	With the aid of a wealthy erratic tippler, a deaf-eyed tramp w-	1931	Charles Chaplin Productions
11	22180 M - Eine Stadt sucht einen Mörder	117	German	When the police in a German city are unable to catch a child-m-	1931	Nero-Film AG
12	25316 It Happened One Night	105	English	A renegade reporter and a crazy young heiress meet on a bus he-	1934	Columbia Pictures
13	27977 Modern Times	87	English	The Tramp struggles to live in modern industrial society with	1936	Charles Chaplin Productions
14	28950 La Grande Illusion	113	French	During WWI, two French soldiers are captured and imprisoned in	1937	Réalisation d'art cinématographique
15	31581 Gone with the Wind	238	English	A manipulative woman and a roguish man conduct a turbulent rom-	1939	Selznick International Pictures
16	31699 Mr. Smith Goes to Washington	120	English	A naive man is appointed to fill a vacancy in the United State	1939	Columbia Pictures
17	32563 The Great Dictator	125	English	Dictator Adenoid Hynkel tries to expand his empire while a pee-	1940	Charles Chaplin Productions
18	32976 Rebecca	150	English	A self-conscious woman juggles adjusting to her new role as an	1940	Selznick International Pictures
19	33645 The Shop Around the Corner	99	English	Two employees at a gift shop can barely stand each other, with	1940	Metro-Goldwyn-Mayer (MGM)
20	33647 Citizen Kane	119	English	Following the death of publishing tycoon Charles Foster Kane,	1941	RKO Radio Pictures
21	34583 Casablanca	102	English	A cynical expatriate American cafe owner struggles to decide w	1942	Warner Bros.
22	35446 To Be or Not to Be	99	English	During the Nazi occupation of Poland, an acting troupe becom	1942	Homeine Film Corporation
23	36776 Double Indemnity	107	English	An insurance representative lets himself be talked by a seduct	1944	Paramount Pictures
24	38450 It's a Wonderful Life	130	English	An angel is sent from Heaven to help a desperately frustrat	1946	Liberty Films (LFI)
25	40522 Ladri di biciclette	89	Italian	In post-war Italy, a working-class man's bicycle is stolen. He	1948	Produzioni De Sica (PBS)
26	40725 The Red Shoes	135	English	A young ballet dancer is torn between the man she loves and he	1948	The Archers
27	40746 Rope	80	English	Two men attempt to prove they committed the perfect crime by h	1948	Warner Bros.
28	40897 The Treasure of the Sierra Madre	124	English	Two Americans searching for work in Mexico convince an old pro	1948	Warner Bros.
29	41546 Nine Months and Coronets	186	English	A distant poor relative of the Dowry Accorpy plots to inheri-	1949	Galing Studios
30	41959 The Third Man	104	English	Pulp novelist Holly Martins travels to shadowy, postwar Vienn	1949	London Film Productions
31	42641 White Heat	114	English	A psychopathic criminal with a mother complex makes a daring b	1949	Warner Bros.
32	42192 All About Eve	138	English	A seemingly timid but secretly ruthless ingénue insinuates her	1950	Twentieth Century Fox

Movie Table Database

ID	Title	Lang	Start_Year	End_Year	Production_House_Name
1	47708 Alfred Hitchcock Presents	English	1955	1962	Alfred J. Hitchcock Productions
2	52520 The Twilight Zone	<null>	1959	1964	<null>
3	53488 The Bugs Bunny Show	English	1960	1975	<null>
4	62550 The Bugs Bunny/Road Runner Hour	English	1968	1978	<null>
5	62588 Mister Rogers' Neighborhood	English	1968	2001	<null>
6	63929 Monty Python's Flying Circus	English	1969	1974	<null>
7	71075 The World at War	English	1973	1974	<null>
8	72500 Fawlty Towers	English	1975	1979	<null>
9	74806 I, Claudius	English	1976	1976	<null>
10	75537 Mind Your Language	English	1977	1986	<null>
11	80396 Yes Minister	English	1980	1984	<null>
12	81834 Das Boot	German	1985	1987	Bavaria Film
13	81846 Cosmos	<null>	1980	1980	<null>
14	81912 Only Fools and Horses....	English	1981	2003	<null>
15	83100 Prikluycheniya Sheroka Kholmsa i doktora Vatsona: Sobaka Baskerviley	Russian	1981	1981	<null>
16	86461 The Adventures of Sherlock Holmes	English	1984	1985	<null>
17	86831 Yes, Prime Minister	English	1986	1987	<null>
18	88484 Blackadder II	English	1986	1986	<null>
19	88509 Dragon Ball: Doragon bôru	<null>	1986	1989	<null>
20	90509 The Return of Sherlock Holmes	English	1986	1988	<null>
21	92324 Blackadder the Third	English	1987	1987	<null>
22	92337 Bekalov	Polish	1989	1989	<null>

TV Series Table Database

	名前 Name	メール Email
1	2.4.7. Films	9@frontier.net
2	2D Entertainment	e0u2qu6zwtv8u6@outlook.org
3	40 Acres & A Mule Filmworks	pak47r@frontier.net
4	A.G. Films	2gf@comcast.net
5	Aamir Khan Productions	0k9260j5zsqb5zjckw6d@verizon.com
6	Aashirvad Cinemas	p2w6cxqiz9iov7@yahoo.gov
7	AB Svensk Filmindustri	4s3ovc581dlky4s1@charter.com
8	ABC Animation	o7l@comcast.com
9	Act III Communications	jwf74nopjwmndfbwir@comcast.com
10	Akira Committee Company Ltd.	0y3h@outlook.org
11	Alcon Entertainment	08@yahoo.com
12	Alfred J. Hitchcock Productions	fq1lz8uff2l4471@comcast.com
13	Allfilm	1g96xcbo2hvyoa@yahoo.org
14	Altavista Films	7@outlook.gov
15	American Zoetrope	c3r610n9j3@yahoo.net
16	AMLF	1grk@frontier.gov
17	Amuse	48hyhe339an@gmail.com
18	Amuse Soft	g@verizon.net
19	Animal Kingdom	3o7cvueas@gmail.gov
20	Anjum Rizvi Film Company	29j7f27sujxblvs@charter.gov
21	Annapurna Pictures	hn7@verizon.com
22	Anurag Kashyap Films	v0@verizon.net
23	APJAC Productions	aigc0t6f0gbtr3k@yahoo.gov
24	Applause Bhansali Productions	oe1b0tojchft4i@verizon.org
25	Arka Mediaworks	zv52y5@outlook.com
26	Armada Productions	725ag7l@yahoo.gov
27	Artcam International	o1jddwjf21mohk7tait7@hotmail.gov
28	Artisan Entertainment	4fcg5abli61qkuos63q@charter.org
29	Asghar Farhadi Productions	fj3vlsfra30ezof@yahoo.org
30	Ashton Productions	lbszh1e@yahoo.gov
31	Ashutosh Gowariker Productions	ga1vgzolg1qgmnotyirk@yahoo.gov
32	Asymmetrical Productions	3kxv54zsc187z3lgd@verizon.gov
33	Atresmedia Cine	55v44jsi@hotmail.org

Production_Houses Table Database

番号 ID	名前 Name	性別 Sex	生年 DOB	国籍 Nationality	メール Email
1	6 Ingrid Bergman(I)=(191	F	1915-8-29	Stockholm, Sweden	0tluz7dl9fmmmyvev@charter.gov
2	7 Humphrey Bogart=(1899-1	T	1899-12-25	New York City, New York, USA	c48krcyhgbn9m@outlook.com
3	8 Marlon Brando(1924-2004)	T	1924-4-3	Omaha, Nebraska, USA	yjhuv6k@verizon.net
4	17 Marlene Dietrich=(I)=(1	F	1901-12-27	Schöneberg, Brandenburg, Prussia, German Empire [now part of B.	316nkd5uakbl2hai@yahoo.net
5	18 Kirk Douglas=(I)=(1916-	T	1916-12-9	Amsterdam, New York, USA	ezm@frontier.net
6	20 Henry Fonda=(1905-1982)	T	1905-5-16	Grand Island, Nebraska, USA	1mp76e@gmail.org
7	33 Alfred Hitchcock=(I)=(1	T	1899-8-13	Leytonstone, London, England, UK	p2z60wr46il3j7uf140@outlook.org
8	34 William Holden=(I)=(191	T	1918-4-17	O'Fallon, Illinois, USA	iwmpygrt5@yahoo.net
9	38 Grace Kelly=(I)=(1929-1	F	1929-11-12	Philadelphia, Pennsylvania, USA	1mgil6rcivb@outlook.gov
10	40 Stanley Kubrick=(1928-1	T	1928-7-26	New York City, New York, USA	ql6ks8tpxeus@verizon.org
11	41 Akira Kurosawa=(1910-19	T	1910-3-23	Tokyo, Japan	yis66yyaxom@frontier.com
12	61 Tyrone Power=(1914-1958)	T	1914-5-5	Cincinnati, Ohio, USA	x4@yahoo.gov
13	71 James Stewart=(I)=(1908	T	1908-5-20	Indiana, Pennsylvania, USA	f@charter.net
14	93 Brad Pitt	T	1963-12-18	Shawnee, Oklahoma, USA	qcd@hotmail.net
15	108 Luc Besson	T	1959-3-18	Paris, France	b1k0wnjmaqgwb2@yahoo.org
16	111 Matthew Broderick=(I)	T	1962-3-21	New York City, New York, USA	a003pjszd15jv@outlook.com
17	116 James Cameron=(I)	T	1954-8-16	Kapuskasing, Ontario, Canada	cgfcqew@verizon.net
18	120 Jim Carrey=(I)	T	1962-1-17	Newmarket, Ontario, Canada	23gy36pg5dsk0g08d06@hotmail.gov
19	122 Charles Chaplin=(1889-1	T	1889-4-16	Walworth, London, England, UK	leo5r01ujqnmkv0@outlook.org
20	124 Jennifer Connelly=(I)	F	1970-12-12	Catskill Mountains, New York, USA	lop0x8qan5@outlook.com

Person Table Database

	Person_ID	TV_Episode_ID	TV_Series_ID
1	249	94982	92337
2	338	94982	92337
3	898812	94982	92337
4	6872	330093	118273
5	122	506447	86661
6	1527	506447	86661
7	293550	506447	86661
8	701374	508300	47708
9	4266	519639	103359
10	592135	519639	103359
11	816143	519639	103359
12	1410	519706	118266

Person_Writes_TV_Episode Table Database

Member Contributions – We tried to equally divide work among the group and had meetings almost daily, where everyone actively participated.

Ansh – Maintained the wip document and the distribution of data collection, collected data for some tables. Designed the ER and the Schema with constraints and implemented it.

Saksham – Populated data for most of the web-scrappable tables using scripts. Managed the data repository and also handled the initial implementation of the schema.

Rupanshu – Designed and implemented the Schema and the viable constraints that are needed for the same. Also populated data for various tables using web scraping scripts.

Rishit – Helped in collecteing data and filled in various tables of the database.

Saurav – Helped in decide the constraints for the schema and filled up various tables of the database.