**NETFLIX- Case Study – Group 8**

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**Description of the Company**

Netflix is a subscription-based streaming service that allows our members to watch TV shows and movies on an internet-connected device. Depending on your plan, you can also download TV shows and movies to your iOS, Android, or Windows 10 device and watch without an internet connection. Netflix content varies by region and may change over time. You can watch a variety of award-winning Netflix originals, TV shows, movies, documentaries, and more. The more you watch, the better Netflix gets at recommending TV shows and movies. You can watch Netflix through any internet-connected device that offers the Netflix app, including smart TVs, game consoles, streaming media players, set-top boxes, smartphones, and tablets. You can also watch Netflix on your computer using an internet browser. Each Netflix plan determines the number of devices you can watch Netflix on at the same time and whether you can watch in High Definition (HD), Full High Definition (FHD), or Ultra High Definition (UHD).

The goal of Netflix is to entertain the world. Regardless of user’s tastes, their location Netflix wants to give access to best-in-class TV shows, documentaries, feature films and mobile games without any ads.

**User Requirements translated into Business requirements**

The users of Netflix would expect the following

* Seamless Sign up flow
  + One customer can sign up only once
  + Customer uses Mobile Number. One mobile number can be used for only one sign up. Every time a new customer signs up, a unique customer ID is generated and assigned to that customer
  + During sign up, we capture the mobile number, device type where the customer is trying to sign up (Mobile, Laptop, TV), Primary language selected, date of sign up, First Name, Last Name and Country are also captured
* Easy login flow
  + Each login leads to a session for a customer, which is identified by the Session ID
  + Customer ID, login time, logout time are recorded for every session. Logout time is the time when the session ends. The difference between login time and logout time is the session length. The device type is also captured where the customer has logged in
* Multiple profiles
  + When a user logs in, they can choose a profile and watch the content in that profile.
  + Each profile has a unique Profile ID and Profile Name
* Types of content
  + There are only 2 types of content on Netflix which are movies are series
  + Every content on Netflix has a unique Content ID, title of the content, Genre, Language, release date and rating
  + Series also has Season and episode as other attributes whereas a movie has Director as an attribute
* Understanding all subscription plans
  + Netflix has many subscription plans, but each plan has a unique Subscription ID, price of the subscription, Number of devices you can watch Netflix on with that particular subscription and definition (UHD, HD, etc.)
* Easy payment flow
  + Every user can setup a single payment method on Netflix from where the money is deducted for their subscriptions
  + Every customer, when they choose a subscription plan, sets up a payment method which captures the payment type , if it’s credit or debit card, masked card number, masked cvv, card holder name, expiry. The details of the card are saved in masked format to ensure financial security
* Ability to add stuff to their watchlist to watch later
  + A user can add stuff to their watchlist to watch later to their profiles
  + Each watchlist created has a unique watchlist ID.
* Play games on mobile
  + Every game on Netflix will have a unique game id. It also has the genre of the game, title of the game and release date

**Cardinality Constraints**

* One user can sign up only once which assigns the user a unique customer ID
* One user can login multiple times. Every time a user logs in, a new session is created, which is identified by the session ID. Each session belongs to only one user
* There are only 2 types of content, Series, and movies and for this project, we will not consider any other types of content. A content can only be either series or a movie, but not both
* One user can take only one subscription at one time and one subscription plan can be subscribed by many users
* A customer can setup only one payment method. The payment method is used to pay the subscription for that customer
* A customer can add any number of content to his/her watchlist. Any content can be added to the watchlist by any number of customers
* A customer can play any number of mobile games and a mobile game can be played by any number of customers
* A customer can watch many different contents in one session and same content can be watched multiple times on multiple sessions
* Each Profile will have one watchlist and every watchlist is associated with only one profile.

Based on the above details, the ERD diagram is presented below

**ERD Model**

Diagram

Description automatically generated

**Relational Model**

Diagram

Description automatically generated

**Database Metadata**

GAMES

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Attribute | Datatype | Size | Auto | Null allowed? | Constraint |
| GameID | Int | 11 | Yes | No | Primary Key |
| GameGenre | Varchar | 11 | No | Yes |  |
| GameTitle | Varchar | 50 | No | No |  |
| GameReleaseDate | date |  | No | Yes |  |

GAME\_PLAYED

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Attribute | Datatype | Size | Auto | Null allowed? | Constraint |
| CustomerID | Int | 11 | No | No | Part of Primary, Foreign |
| GameID | Int | 11 | No | No | Part of Primary, Foreign |
| FirstPlayedDate | Date |  | No | No |  |

SIGNUP

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Attribute | Datatype | Size | Auto | Null allowed? | Constraint |
| CustomerID | Int | 11 | Yes | No | Primary |
| MobileNumber | Int | 10 | No | Yes |  |
| SignupDeviceType | Varchar | 10 | No | No |  |
| PrimaryLanguage | Varchar | 10 | No | No |  |
| SignupDate | Date |  | No | No |  |
| FirstName | Varchar | 20 | No | Yes |  |
| LastName | Varchar | 20 | No | Yes |  |
| Country | Varchar | 30 | No | No |  |
| SubscriptionID | Int | 11 | No | No | Foreign |

PAYMENT

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Attribute | Datatype | Size | Auto | Null allowed? | Constraint |
| SubscriptionID | Int | 11 | No | No | Part of Primary, Foreign |
| CustomerID | Int | 11 | No | No | Part of Primary, Foreign |
| PaymentType | Varchar | 30 | No | No |  |
| CardNo | Int | 16 | No | No |  |
| CVV | Int | 4 | No | No |  |
| CardHolderName | Varchar | 30 | No | No |  |
| ExpiryDate | Date |  | No | No |  |

LOGIN

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Attribute | Datatype | Size | Auto | Null allowed? | Constraint |
| SessionID | Int | 11 | Yes | No | Primary |
| LoginTime | Date |  | No | No |  |
| LogoutTime | Date |  | No | No |  |
| LoginDeviceType | Varchar | 30 | No | No |  |
| CustomerID | Int | 11 | No | No | Foreign |

PROFILE\_SELECTED

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Attribute | Datatype | Size | Auto | Null allowed? | Constraint |
| ProfileID | Int | 11 | Yes | No | Primary |
| ProfileName | Varchar | 30 | No | Yes |  |
| SessionID | Int | 11 | No | No | Foreign |

SUBSCRIPTION

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Attribute | Datatype | Size | Auto | Null allowed? | Constraint |
| SubscriptionID | Int | 11 | Yes | No | Primary |
| Price | Float | 11 | No | No |  |
| NumberofDevices | Int | 3 | No | No |  |
| Definition | Varchar | 11 | No | No |  |

WATCHLIST

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Attribute | Datatype | Size | Auto | Null allowed? | Constraint |
| WatchlistID | Int | 11 | Yes | No | Primary |
| NumberofTitles | Int | 5 | No | Yes |  |

WATCHLIST\_DATA

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Attribute | Datatype | Size | Auto | Null allowed? | Constraint |
| WatchlistID | Int | 11 | No | No | Part of Primary, Foreign |
| ContentID | Int | 11 | No | No | Part of Primary, Foreign |
| AddedDate | Date |  | No | No |  |

CONTENT

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Attribute | Datatype | Size | Auto | Null allowed? | Constraint |
| ContentID | Int | 11 | Yes | No | Primary |
| ContentTitle | Varchar | 30 | No | No |  |
| ContentGenre | Varchar | 30 | No | Yes |  |
| ContentLanguage | Varchar | 30 | No | No |  |
| ContentReleaseDate | Varchar | 30 | No | No |  |
| ContentRating | float | 5 | No | Yes |  |
| ContentType | Varchar | 30 | No | No |  |
| ProfileID | Int | 11 | No | No | Foreign |

MOVIE

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Attribute | Datatype | Size | Auto | Null allowed? | Constraint |
| MContentID | Int | 11 | No | No | Primary |
| Director | Varchar | 30 | No | Yes |  |

SERIES

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Attribute | Datatype | Size | Auto | Null | Constraint |
| SContentID | Int | 11 | No | No | Primary |
| Season | Int | 3 | No | No |  |
| Episode | Int | 3 | No | No |  |

**Creating Database and Tables:**

Create database **Netflix**;

use Netflix;

CREATE TABLE **Games**

(GameID int (11) not null auto\_increment,

GameGenre varchar (11),

GameTitle varchar (50) not null,

GameReleaseDate date,

CONSTRAINT game\_pk PRIMARY KEY (GameID));

Create table **Subscription**

(SubscriptionId int (11) not null auto\_increment,

Price float (11) not null,

NumberofDevices int (3) not null,

Definition varchar (11) not null,

Constraint subscription\_pk Primary Key (SubscriptionID));

Create table **Watchlist**

(WatchlistID int (11) not null auto\_increment,

NumberofTitles int (5),

Constraint watchlist\_pk Primary Key (WatchlistID));

Create table **SignUp**

(CustomerID int (11) not null auto\_increment,

MobileNumber int (10),

SignupDevice Varchar (10) not null,

PrimaryLanguage varchar (10) not null,

SignupDate date not null,

FirstName varchar (20),

LastName varchar (20),

Country varchar (30),

SubscriptionID int (11) not null,

constraint signup\_pk primary key (CustomerID),

constraint signup\_fk FOREIGN KEY(SubscriptionID) REFERENCES Subscription (SubscriptionID));

Create table **GamePlayed**

(CustomerID int (11) not null,

GameID int (11) not null,

FirstPlayedDate date not null,

CONSTRAINT gameplayed\_pk PRIMARY KEY (CustomerID, GameID),

CONSTRAINT gameplayed\_fk1 FOREIGN KEY (CustomerID) REFERENCES SignUp (CustomerID)

ON UPDATE CASCADE ON DELETE CASCADE,

CONSTRAINT gameplayed\_fk2 FOREIGN KEY (GameID) REFERENCES Games (GameID)

ON UPDATE CASCADE ON DELETE CASCADE);

Create table **Payment**

(SubscriptionID int (11) not null,

CustomerID int (11) not null,

PaymentType varchar (30) not null,

CardNo int (16) not null,

CVV int (4) not null,

CardHolderName varchar (30) not null,

ExpiryDate date not null,

CONSTRAINT payment\_pk PRIMARY KEY (CustomerID, SubscriptionID),

CONSTRAINT payment\_fk1 FOREIGN KEY (CustomerID) REFERENCES SignUp (CustomerID)

ON UPDATE CASCADE ON DELETE CASCADE,

CONSTRAINT payment\_fk2 FOREIGN KEY (SubscriptionID) REFERENCES Subscription (SubscriptionID)

ON UPDATE CASCADE ON DELETE CASCADE);

Create table **Login**

(SessionID int (11) not null auto\_increment,

LoginTime date not null,

LogoutTIme date not null,

LoginDeviceType varchar (30) not null,

CustomerID int (11) not null,

CONSTRAINT login\_pk PRIMARY KEY (SessionID),

constraint login\_fk FOREIGN KEY(CustomerID) REFERENCES SignUp (CustomerID));

Create table **ProfileSelected**

(ProfileID int (11) not null auto\_increment,

ProfileName varchar (30),

SessionID int (11) not null,

CONSTRAINT profile\_pk PRIMARY KEY (ProfileID),

constraint profile\_fk FOREIGN KEY(SessionID) REFERENCES Login (SessionID));

Create table **Content**

(ContentID int (11) not null auto\_increment,

ContentTitle varchar (30) not null,

ContentGenre varchar (30),

ContentLanguage varchar (30) not null,

ContentReleaseDate date not null,

ContentRating float (5),

ContentType varchar (30) not null,

ProfileID int (11) not null,

CONSTRAINT content\_pk PRIMARY KEY (ContentID),

constraint content\_pk FOREIGN KEY(ProfileID) REFERENCES ProfileSelected (ProfileID));

Create table **WatchlistData**

(WatchlistID int (11) not null,

ContentID int (11) not null,

AddedDate date not null,

CONSTRAINT watchlistdata\_pk PRIMARY KEY (WatchlistID, ContentID),

CONSTRAINT watchlistdata\_fk1 FOREIGN KEY (WatchlistID) REFERENCES Watchlist (WatchlistID)

ON UPDATE CASCADE ON DELETE CASCADE,

CONSTRAINT watchlistdata\_fk2 FOREIGN KEY (ContentID) REFERENCES Content (ContentID)

ON UPDATE CASCADE ON DELETE CASCADE);

Create table **Movie**

(MContentID int (11) not null,

Director varchar (30),

CONSTRAINT movie\_pk PRIMARY KEY (MContentID),

constraint movie\_fk FOREIGN KEY(MContentID) REFERENCES Content (ContentID));

Create table **Series**

(SContentID int (11) not null,

Season int (3) not null,

Episode int (3) not null,

CONSTRAINT series\_pk PRIMARY KEY (SContentID),

constraint series\_fk FOREIGN KEY(SContentID) REFERENCES Content (ContentID));

**Inserting Data:**

use Netflix;

INSERT INTO **GAMES** (GameID, GameGenre, GameTitle, GameReleaseDate) VALUES

(1,'Adventure','Stranger Things 1984','2019-01-01'),

(2,'cooking','Is it cake','2019-02-19'),

(3,'cooking','The great british bake off','2020-12-01'),

(4,'Thriller','Stranger Things: Puzzle Tales','2021-12-07'),

(5,'puzzle','Stranger Things: Puzzle Tales','2020-10-09'),

(6,'simulation ','Flutter Butterflies','2019-11-07'),

(7,'simulation','Skies of Chaos','2019-07-07'),

(8,'cooking','Nailed It! Baking Bash','2022-08-06'),

(9,'Simulation','Spiritfarer','2022-11-07'),

(10,'Cooking','Spongebob: Squarepants Get Cooking!','2020-03-04'),

(11,'Card','Heads Up!','2020-06-07'),

(12,'Adventure','Before your eyes','2021-06-04'),

(13,'Card','Mahjong Solitaire','2020-02-04'),

(14,'Puzzle','Poinpy','2019-12-09'),

(15,'Adventure', 'The Witcher','2022-11-09'),

(16,'Card','Card Blast','2019-10-12'),

(17,'Thriller','Into the breach','2019-10-11'),

(18,'Simulation','Skylines','2019-02-09'),

(19,'Cooking','Baking Master','2019-11-11'),

(20,'Adventure','Twelve Minutes','2019-12-11');

INSERT INTO **Subscription** (SubscriptionID, Price, NumberofDevices, Definition) VALUES

(235577, 225.32, 9, 'HD'),

(324881, 119.34, 1, 'FHD'),

(348382, 274.87, 8, 'HD'),

(277786, 40.11, 1, 'UHD'),

(422281, 286, 4, 'HD'),

(188483, 162.66, 8, 'UHD'),

(200725, 204.75, 7, 'HD'),

(306802, 136.28, 10, 'UHD'),

(363890, 317.32, 9, 'FHD'),

(290517, 298.64, 8, 'UHD'),

(416802, 315.28, 7, 'UHD'),

(352271, 171.17, 10, 'FHD'),

(220995, 167.36, 1, 'HD'),

(269656, 265.86, 12, 'UHD'),

(312247, 205.87, 9, 'HD'),

(336218, 175.92, 12, 'UHD'),

(298751, 213.65, 10, 'HD'),

(415052, 240.91, 1, 'FHD'),

(166806, 67.92, 13, 'UHD'),

(263504, 52.39, 4, 'HD');

INSERT INTO **WATCHLIST** (WatchlistID, NumberofTitles) VALUES

(18371, 23),

(45318, 21),

(36146, 30),

(20847, 36),

(40985, 27),

(25882, 34),

(29396, 39),

(33215, 97),

(29646, 45),

(38227, 35),

(38475, 56),

(20146, 12),

(37172, 20),

(39347, 14),

(26604, 84),

(24196, 15),

(30602, 24),

(28893, 18),

(32291, 30),

(35274, 27);

INSERT INTO **Signup** (CustomerID, MobileNumber, SignupDevice, PrimaryLanguage, SignupDate, FirstName, LastName, Country, SubscriptionID) VALUES

(101, 1234567890, 'Laptop', 'English', '2018-07-08', 'John', 'Doe', 'USA', 235577),

(102, 1454567890, 'Mobile', 'Spanish', '2017-03-11', 'Bill', 'Doll', 'Spain', 235577),

(103, 1134567890, 'TV', 'Hindi', '2016-03-11', 'Josh', 'Turban', 'India', 235577),

(104, 1832456789, 'TV', 'Telugu', '2020-03-11', 'Mary', 'Lee', 'USA', 324881),

(105, 1774567890, 'Laptop', 'English', '2010-12-10', 'Kenya', 'Sosa', 'India', 324881),

(106, 1444567890, 'TV', 'Spanish', '2019-12-10', 'Ricardo', 'Sultan', 'Spain', 352271),

(107, 1234544890, 'Mobile', 'English', '2017-11-08', 'May Millicent', 'Welch', 'USA', 352271),

(108, 1234567890, 'TV', 'Hindi', '2017-07-08', 'Jerica', 'Austin', 'USA', 352271),

(109, 1234567890, 'Laptop', 'English', '2022-10-08', 'Kenia', 'Bishop', 'USA', 269656),

(110, 1234567890, 'Mobile', 'Hindi', '2016-07-08', 'Tamesha', 'Cardenas', 'USA', 269656),

(111, 1234567890, 'Laptop', 'Spanish', '2017-11-08', 'Talia', 'Montalvo Palafox', 'Spain', 415052),

(112, 1234777890, 'Mobile', 'Hindi', '2018-07-08', 'Steven', 'Nava', 'India', 415052),

(113, 1934567890, 'TV', 'English', '2019-07-08', 'Erick', 'Bernardo-Martinez', 'USA', 263504),

(114, 1234567845, 'Laptop', 'English', '2021-07-08', 'Stephanie', 'Owens', 'USA', 263504),

(115, 1234567890, 'Mobile', 'Hindi', '2018-07-08', 'Shianna', 'Orozco', 'USA', 269656),

(116, 1334567890, 'Laptop', 'English', '2012-11-08', 'Spozhmey', 'Andrade', 'USA', 269656),

(117, 1234567890, 'TV', 'Hindi', '2016-11-07', 'Nidia', 'Fischer ', 'USA', 269656),

(118, 1234567890, 'Mobile', 'English', '2022-09-29', 'Samantha', 'Hasnain Khan', 'India', 352271),

(119, 1234567890, 'TV', 'English', '2021-12-28', 'Kate', 'Smith', 'India', 352271),

(120, 1234567890, 'Mobile', 'English', '2019-07-08', 'Andrea', 'Edwards', 'India', 352271);

INSERT INTO **GAMEPLAYED** (CustomerID, GameID, FirstPlayedDate) VALUES

(101, 1, '2021-07-08'),

(102, 1, '2019-03-11'),

(103, 2, '2019-03-11'),

(104, 3, '2021-03-11'),

(105, 5, '2021-12-10'),

(106, 10, '2021-12-10'),

(107, 5, '2022-11-08'),

(108, 6, '2021-07-08'),

(109, 13, '2022-11-08'),

(110, 12, '2021-07-08'),

(111, 16, '2022-11-08'),

(112, 4, '2022-07-08'),

(113, 12, '2021-07-08'),

(114, 3, '2021-07-08'),

(115, 2, '2021-07-08'),

(116, 20, '2022-11-08'),

(117, 8, '2022-11-07'),

(118, 8, '2022-09-29'),

(119, 9, '2022-12-28'),

(120, 10, '2021-07-08');

INSERT INTO **PAYMENT** (SubscriptionID, CustomerID, PaymentType, CardNo, CVV, CardHolderName, ExpiryDate) VALUES

(235577, 101, 'Credit', 123456789, 208, 'John Doe', '2027-07-08'),

(235577, 102, 'Credit', 567897865, 809, 'Bill Doll', '2025-03-11'),

(235577, 103, 'Debit', 123456789, 457, 'Josh Turban', '2026-03-11'),

(324881, 104, 'Debit', 56789786, 754, 'Mary Lee', '2028-03-11'),

(324881, 105, 'Debit', 12345678, 432, 'Kenya Sosa', '2027-12-10'),

(352271, 106, 'Credit', 78987472, 567, 'Ricardo Sultan', '2023-12-10'),

(352271, 107, 'Credit', 56789786, 542, 'May Millicent Welch', '2029-11-08'),

(352271, 108, 'Debit', 78987472, 246, 'Jerica Austin', '2027-07-08'),

(269656, 109, 'Debit', 12345678, 346, 'Kenia Bishop', '2026-10-08'),

(269656, 110, 'Credit', 78987472, 450, 'Tamesha Cardenas', '2024-07-08'),

(415052, 111, 'Debit', 12345678, 421, 'Talia Montalvo Palafox', '2024-11-08'),

(415052, 112, 'Credit', 56789786, 532, 'Steven Nava', '2026-07-08'),

(263504, 113, 'Debit', 78987472, 246, 'Erick Bernardo-Martinez', '2026-07-08'),

(263504, 114, 'Credit', 12345678, 753, 'Stephanie Owens', '2024-07-08'),

(269656, 115, 'Debit', 78987472, 344, 'Shianna Orozco', '2025-07-08'),

(269656, 116, 'Debit', 12345678, 234, 'Spozhmey Andrade', '2024-11-08'),

(269656, 117, 'Credit', 56789786, 234, 'Nidia Fischer ', '2026-11-07'),

(352271, 118, 'Credit', 78987472, 121, 'Samantha Hasnain Khan', '2022-09-29'),

(352271, 119, 'Credit', 32636363, 111, 'Kate Smith', '2026-12-28'),

(352271, 120, 'Debit', 26897645, 134, 'Andrea Edwards', '2027-07-08');

INSERT INTO **Login** (SessionID, LoginTime, LogoutTime, LoginDeviceType, CustomerID ) VALUES

(11001, '2020-09-21', '2020-10-11', 'Mobile', 101),

(11002, '2018-10-11', '2020-11-07', 'Mobile', 102),

(11003, '2020-11-07', '2021-11-09', 'TV', 103),

(11004, '2019-04-09', '2021-05-03', 'Laptop', 104),

(11005, '2021-04-03', '2021-05-29', 'Laptop', 105),

(11006, '2021-03-29', '2021-04-08', 'Laptop', 106),

(11007, '2019-04-08', '2020-08-29', 'Laptop', 107),

(11008, '2020-08-29', '2020-09-20', 'Laptop', 108),

(11009, '2018-06-20', '2018-07-01', 'Mobile', 109),

(11010, '2017-07-01', '2021-02-03', 'Mobile', 110),

(11011, '2021-02-03', '2022-06-25', 'Mobile', 111),

(11012, '2019-06-25', '2020-03-08', 'Mobile', 112),

(11013, '2017-03-08', '2021-09-19', 'TV', 113),

(11014, '2021-09-19', '2021-10-22', 'TV', 114),

(11015, '2020-05-22', '2020-10-16', 'TV', 115),

(11016, '2019-10-16', '2019-10-24', 'Mobile', 116),

(11017, '2017-10-04', '2021-06-29', 'Laptop', 117),

(11018, '2019-01-04', '2021-11-23', 'Mobile', 118),

(11019, '2021-06-29', '2021-07-04', 'Mobile', 119),

(11020, '2021-11-23', '2021-12-09', 'TV', 120);

INSERT INTO **PROFILESELECTED** (ProfileID, ProfileName, SessionID) VALUES

(1000001, 'Kenya', 11001),

(1000002, 'Bill', 11002),

(1000003, 'Josh', 11003),

(1000004, 'kids', 11004),

(1000005, 'Ricardo', 11005),

(1000006, 'Jerica', 11006),

(1000007, 'Talia', 11007),

(1000008, 'kids', 11008),

(1000009, 'Shianna', 11009),

(1000010, 'Tamesha', 11010),

(1000011, 'Andrea', 11011),

(1000012, 'Samantha', 11012),

(1000013, 'kids', 11013),

(1000014, 'Erick', 11014),

(1000015, 'Stephanie', 11015),

(1000016, 'Nidia', 11016),

(1000017, 'Kate', 11017),

(1000018, 'Andrea', 11018),

(1000019, 'John', 11019),

(1000020, 'Kenia', 11020);

INSERT INTO **CONTENT** (ContentID, ContentTitle, ContentGenre, ContentLanguage, ContentReleaseDate, ContentRating, ContentType, ProfileID) VALUES

(6716, 'Vikram', 'Thriller', 'English', '2017-01-08', 7.3, 'Movie',1000001),

(6717, 'Dark', 'Action', 'English', '2019-09-05', 9.1, 'Series',1000002),

(6718, 'Bad boys', 'Romance', 'English', '2016-09-18', 7.3, 'Movie',1000003),

(6719, 'The 100', 'Scifi', 'English', '2020-09-06', 6.5, 'Series',1000004),

(6720, 'Ghost', 'Crime', 'English', '2021-08-11', 6.9, 'Movie',1000005),

(6721, 'Money Heist', 'Children & Family', 'Korean ', '2013-06-13', 5.7, 'Series',1000006),

(6722, 'Zombies', 'Horror', 'Korean ', '2017-01-08', 8.4, 'Series',1000007),

(6723, 'Fast and Furious', 'Crime', 'English', '2015-09-17', 7.3, 'Movie',1000008),

(6724, 'RRR', 'Children & Family', 'English', '2010-07-17', 8.9, 'Movie',1000009),

(6725, 'What If?', 'Thriller', 'English', '2022-09-09', 8.5, 'Movie',1000010),

(6726, 'Brooklyn 99', 'Dramas', 'English', '2009-10-14', 7.3, 'Series',1000011),

(6727, 'Squid Games', 'Horror', 'English', '2017-01-08', 7.8, 'Movie',1000012),

(6728, '1948', 'Dramas', 'German', '2008-09-12', 8.3, 'Series',1000013),

(6729, 'Asuran', 'Children & Family', 'English', '2008-12-12', 8.3, 'Series',1000014),

(6730, 'Kala Chashma', 'Thriller', 'German', '2009-07-19', 6.9, 'Movie',1000015),

(6731, 'Independence Day', 'Dramas', 'English', '2019-08-10', 7.4, 'Movie',1000016),

(6732, 'Orphan', 'Horror', 'English', '2019-02-04', 9.2, 'Movie',1000017),

(6733, 'Breaking Bad', 'Thriller', 'English', '2017-01-08', 8.9, 'Series',1000018),

(6734, 'Friends', 'Children & Family', 'English', '2017-09-23', 8.5, 'Movie',1000019),

(6735, 'Breathe', 'Thriller', 'English', '2021-12-10', 7.9, 'Movie',1000020),

(6736, 'Bakers Dozen', 'Thriller', 'English', '2021-12-11', 7.9, 'Series',1000006),

(6737, 'Godfather of Harlem', 'Thriller', 'English', '2021-12-12', 7.9, 'Series',1000007),

(6738, 'Pen-15', 'Action', 'English', '2021-12-13', 7.9, 'Series',1000008),

(6739, 'Power', 'Action', 'English', '2021-12-14', 7.9, 'Series',1000009),

(6740, 'Wednesday', 'Children & Family', 'English', '2021-12-15', 7.9, 'Series',1000010),

(6741, 'Warrior Nun', 'Horror', 'English', '2021-12-16', 7.9, 'Series',1000011),

(6742, 'Inside Man', 'Children & Family', 'English', '2021-12-17', 7.9, 'Series',1000012),

(6743, 'The Watcher', 'Thriller', 'English', '2021-12-18', 7.9, 'Series',1000010),

(6744, 'Game of Thrones', 'Action', 'English', '2021-12-19', 7.9, 'Series',1000011),

(6745, 'Down town abby', 'Dramas', 'English', '2021-12-20', 7.9, 'Series',1000012),

(6746, 'Sabrina', 'Horror', 'English', '2021-12-21', 7.9, 'Series',1000013),

(6747, 'Whats Wrong with her', 'Romance', 'English', '2021-12-22', 7.9, 'Series',1000014),

(6748, 'the pursuit of happyness', 'Dramas', 'English', '2017-08-25', 8.1, 'Movie',1000015),

(6749, 'Beauty and the beast', 'Musical', 'English', '2020-03-21', 8.4, 'Movie',1000016),

(6750, 'The greatest showman', 'Musical', 'English', '2018-05-18', 8.1, 'Movie',1000017),

(6751, '17 Again', 'Comedy', 'English', '2019-02-12', 7.9, 'Movie',1000018),

(6752, 'wonder', 'Children & Family', 'English', '2017-05-18', 9.2, 'Movie',1000019),

(6753, 'Easy A', 'Comedy', 'English', '2016-09-17', 8.6, 'Movie',1000010),

(6754, 'LaLaLand', 'Musical', 'English', '2018-08-08', 8.8, 'Movie',1000011),

(6755, 'The Shawshank Redemption', 'Dramas', 'English', '2008-03-29', 9.3, 'Movie',1000012),

(6756, '21', 'Dramas', 'English', '2018-06-17', 7.4, 'Movie',1000013);

INSERT INTO **WATCHLISTDATA** (WatchlistID, ContentID, AddedDate) VALUES

(18371, 6716, '2016-10-11'),

(45318, 6717, '2016-09-21'),

(36146, 6718, '2016-10-01'),

(20847, 6719, '2015-01-11'),

(40985, 6720, '2016-02-11'),

(25882, 6721, '2016-03-11'),

(29396, 6722, '2016-04-21'),

(33215, 6723, '2016-05-13'),

(29646, 6724, '2016-05-14'),

(38227, 6725, '2016-02-06'),

(38475, 6726, '2016-01-09'),

(20146, 6727, '2016-04-17'),

(37172, 6728, '2013-10-11'),

(39347, 6729, '2014-01-21'),

(26604, 6730, '2015-10-11'),

(24196, 6731, '2015-10-11'),

(30602, 6732, '2016-08-11'),

(28893, 6733, '2016-08-09'),

(32291, 6734, '2016-01-01'),

(35274, 6735, '2015-01-01');

INSERT INTO **MOVIE** (MContentID, Director) VALUES

(6716, 'David fincher'),

(6718, 'Stephen Chobsky'),

(6720, 'Quentin tarantino'),

(6723, 'james cameron'),

(6724, 'angelina jolie'),

(6725, 'olivia wilde'),

(6727, 'christopher nolan'),

(6730, 'christopher mccarry'),

(6731, 'michael gracey'),

(6732, 'james mangold'),

(6734, 'steven spielberg'),

(6735, 'martin scorsese'),

(6748, 'stanley kubrick'),

(6749, 'spike lee'),

(6750, 'ridley scott'),

(6751, 'ang lee'),

(6752, 'woody allen'),

(6753, 'steven soderbergh'),

(6754, 'peter jackson'),

(6755, 'greta gerwig');

INSERT INTO **SERIES** (SContentID, Season, Episode) VALUES

(6717, 4, 12),

(6719, 5, 16),

(6721, 5, 8),

(6722, 6, 14),

(6726, 7, 17),

(6728, 7, 13),

(6729, 2, 19),

(6733, 3, 6),

(6736, 2, 7),

(6737, 3, 13),

(6738, 6, 15),

(6739, 4, 14),

(6740, 5, 15),

(6741, 6, 16),

(6742, 3, 18),

(6743, 5, 10),

(6744, 2, 12),

(6745, 6, 14),

(6746, 3, 15),

(6747, 6, 18);

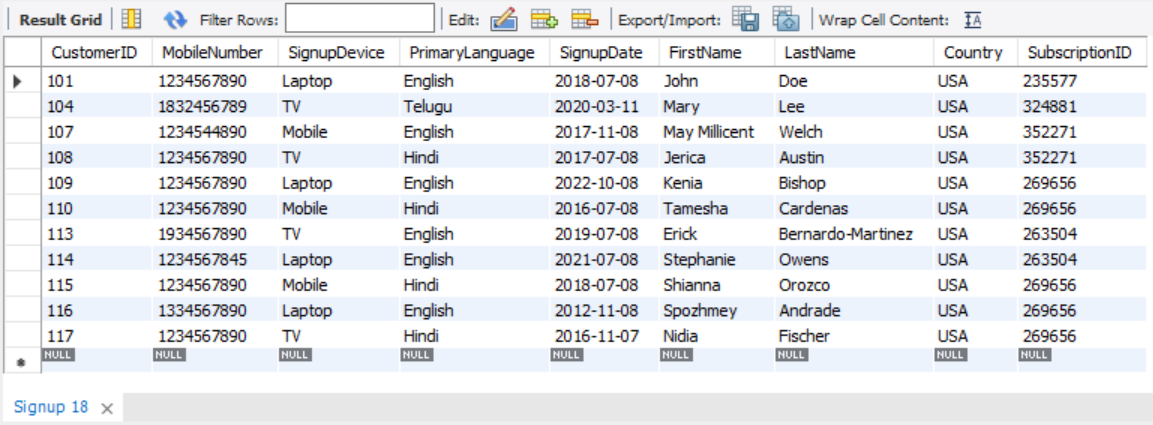
**SQL Queries:**

use Netflix;

1. **Simple Query:**

List Customers from USA.

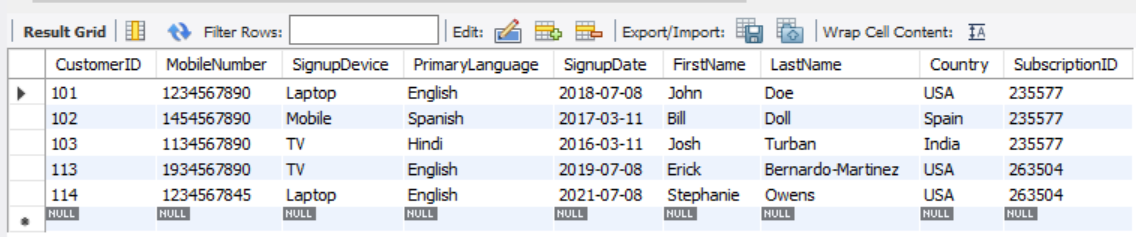
select \* from Signup where Country='USA';



1. **Sub Query:**

List Customers who have Subscription plan as HD.

select \* from Signup where SubscriptionID in (select SubscriptionId from subscription where Definition='HD');



1. **JOINS:**
2. Left Join:

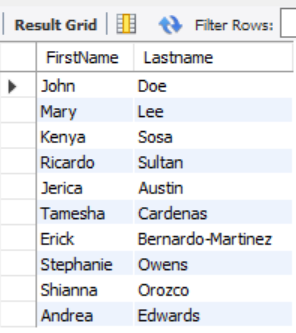
List all player's names who have played between 1st Jan 2021 and 1st Jan 2022.

select Signup.FirstName, Signup.Lastname from Signup

left join GamePlayed

on Signup.CustomerID = Gameplayed.CustomerID

where Gameplayed.FirstPlayedDate > '2021-01-01' and Gameplayed.FirstPlayedDate <'2022-01-01';



1. Inner join:

List all the customers who pay more than 200 for subscription.

SELECT signup.subscriptionID, signup.CustomerID, Signup.FirstName,

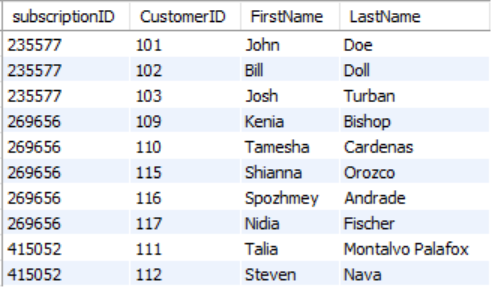
Signup.LastName

FROM Signup

INNER JOIN subscription ON

signup.SubscriptionID= subscription.SubscriptionId

where subscription.Price>'200' ;



1. Left Join:

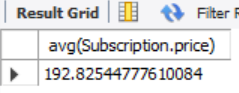
What is the average price of all the subscriptions the users have chosen who signed up in USA?

select avg(Subscription.price) from Subscription

left join signup

on subscription.subscriptionID = signup.subscriptionID

where signup.country ='USA';



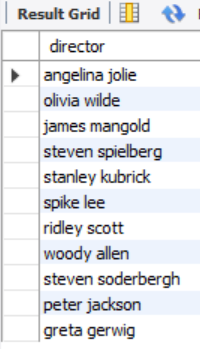
1. Right Join:

Name the directors of the movies with rating above 8.

select Movie.director from content right join movie

on content.ContentID = movie.MContentID

where content.ContentType = 'Movie' and content.contentrating>8;



1. **Views:**
2. View 1:

Using the view, find out average rating for english language series

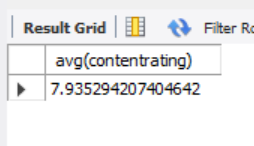
create view SeriesSeasons as

select content.contentrating, content.contentlanguage from content left join series

on content.ContentID = series.SContentID

where content.ContentType = 'Series';

select avg(contentrating) from SeriesSeasons where contentlanguage ='English';



1. View 2:

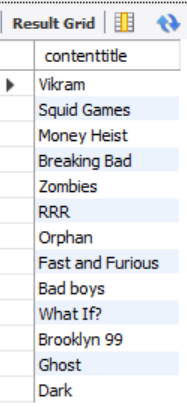
Using the view, find the list of titles which were added to watchlist after 1st Jan 2016

create view watchlistmovies as

select content.contenttitle, watchlistdata.addeddate from content left join watchlistdata

on content.contentid = watchlistdata.contentid;

select contenttitle from watchlistmovies where addeddate >'2016-01-01';



1. **Stored Procedure**
2. Stored Procedure 1- get genre of the game based on the title

Using the above stored procedure, find out the genre of the game called Spiritfarer

DELIMITER //

CREATE PROCEDURE GetGameGenrebyTitle(IN Gamename varchar(50))

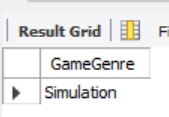
BEGIN

select GameGenre from Games

Where gametitle =Gamename ; END //

DELIMITER ;

call getgamegenrebytitle('Spiritfarer');



1. Stored Procedure 2 get average rating of the content based on language

Using the above stored procedure, findout the average rating for all English Content

DELIMITER //

CREATE PROCEDURE GetavgRatingByLanguage(IN lang varchar(30))

BEGIN

select avg(contentrating) from content

Where contentlanguage =lang ; END //

DELIMITER ;

call GetavgRatingByLanguage('English');

