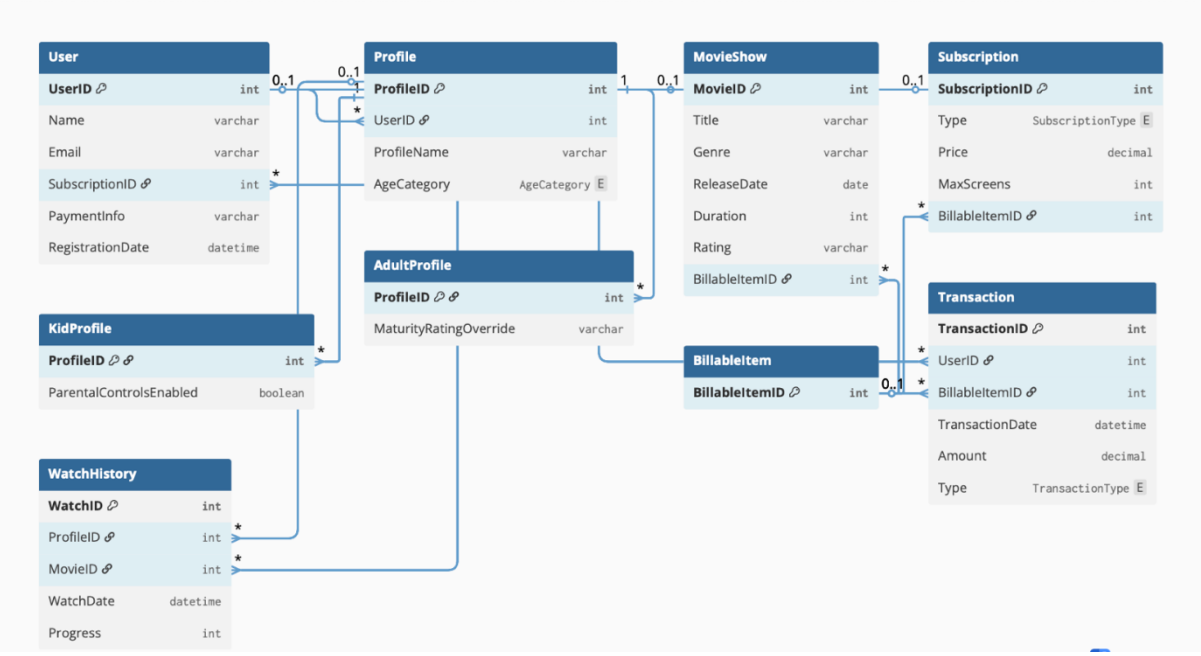
Лабораторна 1 – Схема

```
Enum AgeCategory {
   Kid
   Adult
}

Enum SubscriptionType {
   Basic
   Standard
   Premium
}

Enum TransactionType {
   Purchase
   Rental
   SubscriptionPayment
}
```



Лабораторна 2 – Код

```
CREATE DATABASE StreamingDB;
USE StreamingDB;


CREATE TABLE BillableItem (
BillableItemID INT PRIMARY KEY
);
```

```
-- Subscriptions
CREATE TABLE Subscription (
SubscriptionID INT PRIMARY KEY,
Type ENUM('Basic','Standard','Premium') NOT NULL,
Price DECIMAL(10,2) NOT NULL,
MaxScreens INT NOT NULL CHECK (MaxScreens >= 1),
BillableItemID INT UNIQUE,
FOREIGN KEY (BillableItemID) REFERENCES BillableItem(BillableItemID)
);

-- Users
CREATE TABLE `User` (
UserID INT PRIMARY KEY,
Name VARCHAR(100) NOT NULL,
Email VARCHAR(100) UNIQUE NOT NULL,
SubscriptionID INT,
PaymentInfo VARCHAR(255),
RegistrationDate DATETIME NOT NULL,
FOREIGN KEY (SubscriptionID) REFERENCES Subscription(SubscriptionID)
);

-- Profiles
CREATE TABLE Profile (
ProfileID INT PRIMARY KEY,
UserID INT,
ProfileName VARCHAR(100) NOT NULL,
AgeCategory ENUM('Kid','Adult') NOT NULL,
FOREIGN KEY (UserID) REFERENCES `User` (UserID)
);

-- Movies
CREATE TABLE MovieShow (
MovieID INT PRIMARY KEY,
Title VARCHAR(200) NOT NULL,
Genre VARCHAR(100),ReleaseDate DATE,
Duration INT,
Rating VARCHAR(10),
BillableItemID INT UNIQUE,
FOREIGN KEY (BillableItemID) REFERENCES BillableItem(BillableItemID)
);

-- Profile specialization
CREATE TABLE KidProfile (
ProfileID INT PRIMARY KEY,
ParentalControlsEnabled BOOLEAN NOT NULL,
FOREIGN KEY (ProfileID) REFERENCES Profile(ProfileID)
);

CREATE TABLE AdultProfile (
ProfileID INT PRIMARY KEY,
MaturityRatingOverride VARCHAR(50),
FOREIGN KEY (ProfileID) REFERENCES Profile(ProfileID)
);
```

```
-- Transactions
CREATE TABLE `Transaction` (
TransactionID INT PRIMARY KEY,
UserID INT,
BillableItemID INT,
TransactionDate DATETIME NOT NULL,
Amount DECIMAL(10,2) NOT NULL,
Type ENUM('Purchase','Rental','SubscriptionPayment') NOT NULL,
FOREIGN KEY (UserID) REFERENCES `User`(UserID),
FOREIGN KEY (BillableItemID) REFERENCES BillableItem(BillableItemID)
);

-- Watch history
CREATE TABLE WatchHistory (
WatchID INT PRIMARY KEY,
ProfileID INT,
MovieID INT,
WatchDate DATETIME NOT NULL,
Progress INT,
UNIQUE(ProfileID, MovieID, WatchDate),
FOREIGN KEY (ProfileID) REFERENCES Profile(ProfileID),
FOREIGN KEY (MovieID) REFERENCES MovieShow(MovieID)
);
```

Заповнення таблиці

```
-- Billable items (універсальні об’єкти для підписок і фільмів)

INSERT INTO BillableItem VALUES

(1), (2), (3), -- для підписок

(10), (11), (12), (13); -- для фільмів


-- Subscriptions

INSERT INTO Subscription VALUES

(1, 'Basic', 4.99, 1, 1),

(2, 'Standard', 9.99, 2, 2),

(3, 'Premium', 14.99, 4, 3);


-- Users

INSERT INTO `User` VALUES

(1, 'Alice Wonderland', 'alice@example.com', 3, 'Visa ****1234', '2024-01-05 10:20:00'),

(2, 'Bob Builder', 'bob@example.com', 2, 'MasterCard ****5678', '2024-02-10 09:15:00'),

(3, 'Charlie Gamer', 'charlie@example.com', 1, 'PayPal charlie@paypal.com', '2024-03-15 18:45:00');
```

```
-- Profiles
INSERT INTO Profile VALUES
(1, 1, 'Alice', 'Adult'),
(2, 1, 'Mini Alice', 'Kid'),
(3, 2, 'Bob', 'Adult'),
(4, 2, 'Little Bob', 'Kid'),
(5, 3, 'Charlie', 'Adult');

-- Kid & Adult specialization
INSERT INTO KidProfile VALUES
(2, TRUE),
(4, TRUE);

INSERT INTO AdultProfile VALUES
(1, 'R'),
(3, 'PG-13'),
(5, NULL);

-- Movies
INSERT INTO MovieShow VALUES
(100, 'The Matrix', 'Sci-Fi', '1999-03-31', 136, 'R', 10),
(101, 'Frozen', 'Animation', '2013-11-27', 102, 'PG', 11),
(102, 'Inception', 'Sci-Fi', '2010-07-16', 148, 'PG-13', 12),
(103, 'Shrek', 'Animation', '2001-05-18', 90, 'PG', 13);

-- Transactions
INSERT INTO `Transaction` VALUES
(1, 1, 1, '2024-01-05 10:21:00', 14.99, 'SubscriptionPayment'),
(2, 2, 2, '2024-02-10 09:16:00', 9.99, 'SubscriptionPayment'),
(3, 3, 1, '2024-03-15 18:46:00', 4.99, 'SubscriptionPayment'),
(4, 1, 10, '2024-03-20 20:00:00', 2.99, 'Rental'),
```

(5, 2, 11, '2024-03-22 17:30:00', 3.99, 'Purchase');

-- Watch History

INSERT INTO WatchHistory VALUES

(1, 1, 100, '2024-03-21 20:00:00', 136),

(2, 2, 101, '2024-03-21 18:00:00', 60),

(3, 3, 102, '2024-03-23 21:00:00', 120),

(4, 4, 101, '2024-03-24 19:00:00', 30),

(5, 5, 103, '2024-03-25 22:30:00', 90);