**COMP B21 – Assignment #4**

**customer** (customer\_id, customer\_name, customer\_address, customer\_city, customer\_state, customer\_zip\_code, customer\_phone\_number, customer\_drivers\_license)

Holds the personal information of the customers.

**video** (video\_id, video\_title, rental\_number🡪current\_rentals, length, genre\_id🡪genre, format\_id🡪format, rental\_price, cost)

Holds the relevant information of the videos in the company’s library.

**genre** (genre\_id, genre\_sequence, genre, video\_id🡪video)

Holds the different types of video genres and their unique ID number.

**format** (format\_id, format\_sequence, format, video\_id🡪video)

Holds the different types of video formats and their unique ID number.

**current\_rentals** (rental\_number, transaction\_number🡪rental\_history, video\_id🡪video, customer\_id🡪customer, rental\_date)

Holds the records for videos currently rented.

**rental\_history** (transaction\_number, video\_id🡪video, customer\_id🡪customer, cost\_payment, rental\_price\_payment, late\_fees\_payment, total\_payments, rental\_date)

Holds the records for past rental transactions and gives the total payments for each transaction.

**REASONABLE business rules:**

* Each customer/video copy has a unique ID number: there can be multiple customers/videos of the same title, but they must have unique ID numbers.
* There’s no relevant information to be gained by subdividing a customer’s name.
* Only videos that are in the company’s library are listed: any lost/bought videos are deleted from the database.
* It’s more efficient to use an ID number for identifying Video Genre & Format.
* The rental time period for each video is gathered by counting the number of times the video has been rented from the “rental\_history” table.
* When a video is rented, it is added to the “current\_rentals” table and removed when it is returned. If a video does not have a rental number from this table, then that means it is in-stock—no one has it checked out.
* Every rental transaction is given a unique transaction number and maintained in the “rental\_history” table until that transaction’s records are no longer needed.
* The total\_payments\_received field in the “rental\_history” table adds up the following fields: cost\_payment, rental\_price\_payment, and late\_fees\_payment.
* How much money was taken in per day, week, month, or year can be gathered by filtering by rental date within the “rental\_history” table, and then looking at the total payments field.