Screaming Beckers: Daniel Stanev, Harry Tran

Dr. Eric Becker

CS 4347.501

1 Oct 2023

## Schema Dictionary

Name: Article

**Description:** A copy of an academic article available to be borrowed

- **Primary Key:** Media ID
- Media ID: An integer that uniquely identifies a piece of media
- **Journal:** Varchar(100), The journal in which the article is published in

Name: Associations

**Description:** Librarian association that a librarian is a part of

- **Primary Key:** Composite (Association, FK\_Person\_ID)
- Association: Varchar(100), Association that a librarian is part of
- Foreign Key: FK Person ID references Librarian(Person ID)

Name: Audiobook

**Description:** An audiobook that the library gives digital access to customers

- Primary Key: Media ID
- Media ID: An integer that uniquely identifies a piece of media
- **Book Length:** Time, The total playback time of the audiobook

Name: Authors

**Description:** The Author(s) of an academic article

- **Primary Key:** Composite (Author, FK\_Media\_ID)
- **Author:** Varchar(100), Name of author
- Foreign Key: FK Media ID references Article(Media ID)

Name: Bank Accounts

**Description:** All bank accounts than belong to a person

- **Primary Key:** Routing Num
- Routing Num: Int, The routing number of the bank account
- **Foreign Key:** FK Person ID references Person(Person ID)

Name: Book

**Description:** A book available at the library

• Primary Key: Media ID

• Author: Varchar(100), Name of author

• ISBN: Int, The International Standards Book Number of the book

Name: Borrow

**Description:** The act of a person borrowing a piece of media

- **Primary Key:** Composite (FK Person ID, FK Media ID)
- Return\_Date: Date, The date which the media must be returned by
- **Foreign Key:** FK Person ID references Customer(Person ID)
- Foreign Key: FK Media ID references Media(Media ID)

Name: Clerk

**Description:** A library clerk

- **Primary Key:** Person\_ID
- **Person ID:** An integer that uniquely identifies a person
- **Register No:** Int, The register at which the clerk works
- Training Complete: Bool, Whether or not the clerk has completed their training

Name: Customer

**Description:** A person who is a library customer

- Primary Key: Person ID
- **Person ID:** An integer that uniquely identifies a person
- Num Borrowed: Int, Number of media that the customer has borrowed
- **Borrow Limit:** Int, Max number of media that the customer may borrow

Name: Employee

**Description:** A person that is employed by the library

- Primary Key: Person ID
- **Person ID:** An integer that uniquely identifies a person
- Supervisor: Varchar(100), Name of the employee's supervisor

Name: Keywords

**Description:** The keyword(s) of an academic article

- **Primary Key:** Composite (Keyword, FK Media ID)
- **Keyword:** Varchar(100), Keyword for the information in article
- Foreign Key: FK\_Media\_ID references Article(Media\_ID)

Name: Librarian

**Description:** An employee who is a librarian

• Primary Key: Person ID

- **Person\_ID:** An integer that uniquely identifies a person
- **Degree:** Varchar(32), The degree this librarian holds
- Policy\_Develop: Bool, Whether or not the librarian is involved in policy development

Name: Media

**Description:** A media available to be borrowed at the library

- Primary Key: Media ID
- Media\_ID: An integer that uniquely identifies a media
- **Title:** Varchar(100), Title of the media
- **Genre:** Varchar(100), Genre of media (if any)
- **Publisher:** Varchar(100), Publisher of the media
- Total Stock: Int, Maximum amount available to be borrowed
- Available\_Stock: Int, Remaining amount available to be borrowed

Name: Movie

**Description:** A movie available to be borrowed at the library

- Primary Key: Media ID
- Media ID: An integer that uniquely identifies a media
- Movie Length: Time, Playback time of the movie
- **Production\_Co:** Varchar(100), The producer of the movie

Name: Music

**Description:** A music disc available to be borrowed at the library

- Primary Kev: Media ID
- Media ID: An integer that uniquely identifies a media
- Song Length: Time, Playback time of the song
- Artist: Varchar(100), The name of the song artist
- **Album:** Varchar(100), The name of the album of the song (if any)

Name: Person

**Description:** A person that is stored in the library's database

- Primary Key: Person ID
- **Person ID:** An integer that uniquely identifies a person
- First Name: Varchar(32), First name of the person
- Last Name: Varchar(32), Last name of the person
- Street\_Address: Varchar(100), House number and street of a person
- City: Varchar(100), Name of city where person lives
- State: Varchar(2), The 2-letter abbreviation of a person's state

Name: Private Room

**Description:** A private room that customers rent out

- **Primary Key:** Room Num
- **Room Num:** An integer that uniquely identifies a room
- Max Occupancy: Int, Maximum number of people that can fit in the room
- Has Screen: Bool, Whether or not the room has a screen
- Has Whiteboard: Bool, Whether or not the room has a whiteboard

Name: Rent

**Description:** The act of a person renting a private room

- **Primary Key:** Composite (FK\_Person\_ID, FK\_Room\_Num)
- **Date:** Date, The date which the room is rented out on
- Foreign Key: FK Person ID references Customer(Person ID)
- Foreign Key: FK\_Room\_Num references Private\_Room(Room\_Num)

Name: Schedule

**Description:** The schedule that a library employee works

- Primary Key: Person ID
- **Person ID:** An integer that uniquely identifies a person
- Shifts: Varbinary(14), Which of 14 shifts an employee works
- Wage: Int, Amount that the employee earns per shift

Name: Supervision

**Description:** Relationship between supervisor and employee

- **Primary Key:** Composite (FK\_Sub\_ID, FK\_Super\_ID)
- Foreign Key: FK Sub ID references Employee(Person ID)
- Foreign Key: FK Super ID references Article(Media ID)

Name: Volunteer

**Description:** An employee who is a volunteer

- Primary Key: Person ID
- **Person ID:** An integer that uniquely identifies a person
- **Department:** Varchar(100), Department that the volunteer works for
- Court\_Mandated: Bool, Whether or not the person is volunteering on court orders