## Relations

| Name | # of Fields | Description |
|---|---|---|
| account | 8 | Contains user accounts and their related information. |
| contributor | 2 | Contributor entities contain information about a contributor to a work. This includes authors, music artists, and film directors among others. |
| contribution | 4 | Contribution represents the relationship between contributors and items |
| loan | 6 | Loan represents the relationship between a user account and an item that has been borrowed, including the dates the item was loaned out, due, and returned. |
| reservation | 5 | Reservation represents the relation between an user account, a reservation made by that user, and the item they are reserving. |

## Account

| Attribute Name | Data Type | Description |
|---|---|---|
| account_id | INT | Primary key of the account table and unique identifier of an account |
| first_name | ARCHAR(35) | First name of the account holder |
| last_name | ARCHAR(35) | Last name of the account holder |
| middle_initial | CHAR | Initial of the middle name of the account holder |
| account_type_id | INT | Foreign key to account type |
| restricted | BOOL | TRUE if account has borrowing restrictions placed on it |
| address | ARCHAR(50) | Address of the account holder |
| birthdate | DATE | Birth date of the account holder |
| email | ARCHAR(62) | E-mail of the account holder |
| phone_number | CHAR(10) | Phone number of the account holder |
| parent_id | INT | Foreign key connecting Student type accounts to their guardian's account |

## Account Type

| Attribute Name | Data Type | Description |
|---|---|---|
| account_type_id | INT | Primary key of the account type table and unique identifier of an account |
| acount_type_name | VARCHAR(10) | Name of the account type (Adult, Student, Staff) |

## Contributor

| Attribute Name | Data Type | Description |
|---|---|---|
| contributor_id | INT | Primary key of the contributor table and unique identifier of a contributor |
| first_name | ARCHAR(35) | First name of the contributor |
| last_name | ARCHAR(35) | Last name of the contributor |
| middle_initial | CHAR | Initial of the middle name of the contributor |

## Contribution

| Attribute Name | Data Type | Description |
|---|---|---|
| contribution_id | INT | Primary key of the contribution table and unique identifier of a contributor |
| item_id | INT | Foreign key connecting contributions to an item |
| contributor_id | INT | Foreign key connecting a contributor to its contribution |
| role_id | INT | Foreign key identifying the contributor's role in producing the item |

## Contribution Role

| Attribute Name | Data Type | Description |
|---|---|---|
| role_id | INT | Primary key of the contribution role table and unique identifier of a contribution |
| role_name | ARCHAR(15) | Name of the contribution role |

## Genre

| Attribute Name | Data Type | Description |
|---|---|---|
| genre_id | INT | Primary key of the genre table and unique identifier of a genre |
| genre_name | ARCHAR(15) | Name of the genre |

## Item

| Attribute Name | Data Type | Description |
|---|---|---|
| item_id | INT | Primary key of the item table and unique identifier of an item |
| item_type_id | INT | Foreign key connecting an item to an item type |
| title | ARCHAR(50) | Title of the item |
| description | RCHAR(255) | Description of the item |
| genre_id | INT | Foreign key to genre table |
| ISBN | INT | ISBN of a book |
| publication_year | INT | Year in which item was released |

| | | |
|---|---|---|
| publication_date | DATE | Date on which item was released |
| publisher | ARCHAR(50) | Publisher of item |
| issue_number | INT | Issue number of a magazine |
| explicit | BOOL | TRUE if item is a CD with a parental advisory warning (Student type accounts cannot borrow it) |
| rating_id | INT | Foreign key to rating table, which describes the MPAA rating of a DVD. R or above cannot be borrowed by student. NULL if not a DVD |
| total_quantity | INT | Quantity of item that library owns |
| quantity_available | INT | Quantity of item that is currently available for borrowing |
| reservation_amount | INT | Amount of reservations currently placed on item |

## Item Type

| Attribute Name | Data Type | Description |
|---|---|---|
| item_type_id | INT | Primary key of the item type table and unique identifier of an item type |
| item_type_name | ARCHAR(10) | Name of the item type |

## Loan

| Attribute Name | Data Type | Description |
|---|---|---|
| loan_id | INT | Primary key of the loan table and unique identifier of a loan |
| item_id | INT | Foreign key referencing the item being borrowed |
| account_id | INT | Foreign key referencing the account that borrowed the item |
| loan_out_date | DATE | Date the item was loaned out |
| due_date | DATE | Date by which the item must be returned |
| return_date | DATE | Date that an item is returned (nullable) |

## Rating

| Attribute Name | Data Type | Description |
|---|---|---|
| rating_id | INT | Primary key of the rating table and unique identifier of a rating |
| rating_name | ARCHAR(5) | Name of the rating |

## Reservation

| Attribute Name | Data Type | Description |
|---|---|---|
| reservation_id | INT | Primary key of the reservation table and unique identifier of a reservation |
| item_id | INT | Foreing key connecting reservations to an item |
| account_id | INT | Foreign key connecting reservations to an account |
| reservation_date | DATE | Date on which an item is reserved for loaning |
| reservation_end_date | DATE | Date on which a reservation expires |