Project Name: Pleasantville Community Theater Group

Delivery #2

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1. Revised Data Model

Please see attached files.

1. Relational Schema and Structure

**USER**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Table Description: Stores the information about the user created in the database. User is a supertype; it can be a patron or sponsor. A patron can buy tickets and see the plays, a sponsor can donate money to the production. | | | | | | | |
| **Field Name** | **Data Type** | **Length** | **Format** | **Key** | **Allow Null** | **Reference** | **Description** |
| User\_ID | Int | 20 | numeric | PK | No |  | Stores user’s unique ID |
| Type | varchar | 10 | alphabet |  | No |  | Stores user’s type: patron or sponsor |
| FName | varchar | 30 | alphabet |  | No |  | Stores user's first name |
| LName | varchar | 30 | alphabet |  | No |  | Stores the user's last name |
| Address | varchar | 50 | alphabet |  | Yes |  | Stores the user's address |
| Contact | int | 15 | numeric |  | Yes |  | Stores the user's contact number |
| Username | varchar | 25 | alphanumeric |  | No |  | Stores the user's username |
| Password | varchar | 25 | alphanumeric |  | No |  | Store the user's password |
| LoggedIn | boolean |  | bool |  | No |  | Determines if the user is logged in |

**PRODUCTION**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Table Description: Stores the information about the production created in the database. It has a title, date, revenue. | | | | | | | |
| **Field Name** | **Data Type** | **Length** | **Format** | **Key** | **Allow Null** | **Reference** | **Description** |
| Title | varchar | 50 | alphabet | PK | No |  | Stores production's unique ID |
| Date | DatE |  | date | PK | No |  | Stores date of the production |
| Revenue | int | 10 | numeric |  | Yes |  | Stores the production's revenue |

**MEMBER**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Table Description: Stores the information about a member created in the database. A member works in the production | | | | | | | |
| **Field Name** | **Data Type** | **Length** | **Format** | **Key** | **Allow Null** | **Reference** | **Description** |
| Member\_ID | Int | 20 | numeric | PK | No |  | Stores member’s unique ID |
| FName | varchar | 30 | alphabet |  | No |  | Stores member's first name |
| LName | varchar | 30 | alphabet |  | No |  | Stores the member's last name |
| Address | varchar | 50 | alphabet |  | Yes |  | Stores the user's address |
| Contact | int | 15 | numeric |  | Yes |  | Stores the user's contact number |

**PLAY**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Table Description: Stores the information about a play created in the database. A play is produced by a production. | | | | | | | |
| **Field Name** | **Data Type** | **Length** | **Format** | **Key** | **Allow Null** | **Reference** | **Description** |
| Playwright | Varchar | 50 | alphabet | PK | No |  | Stores play's author/playwright |
| Title | varchar | 50 | alphabet | PK FK | No | Production (Title) | Stores the play's title |
| Time | Time |  | time |  | No |  | Stores time of the play |
| Poster | image |  | Jpeg/png |  | Yes |  | Stores the play's poster |

**SPONSORSHIP**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Table Description: Stores the information about the sponsorship between the sponsor and the production. Sponsorship is an associative entity. | | | | | | | |
| **Field Name** | **Data Type** | **Length** | **Format** | **Key** | **Allow Null** | **Reference** | **Description** |
| Title | varchar | 50 | alphabet | PK FK | No | Production (Title) | Stores the title of the production |
| ProductionDate | DatE |  | date | PK FK | No | Production (Date) | Stores date of the production |
| User\_ID | int | 20 | numeric | PK FK | No | User(User\_ID) | Stores the user's ID |
| Donation  Date | DatE |  | date |  |  |  | Stores the date of the donation |
| Donation Amount | int | 10 | numeric |  |  |  |  |

**CAST**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Table Description: Stores the information about a cast created in the database. A cast is an associative entity between member and production. | | | | | | | |
| **Field Name** | **Data Type** | **Length** | **Format** | **Key** | **Allow Null** | **Reference** | **Description** |
| Member\_ID | int | 20 | numeric | PK FK | No | Member (Member\_ID) | Stores member’s unique ID |
| Title | varchar | 50 | alphabet | PK FK | No | Production (Title) | Stores the title of the production |
| Date | DatE |  | date | PK FK | No | Production (Date) | Stores date of the production |
| Job | varchar | 20 | alphabet |  | Yes |  | Stores the member's job |

**SEAT**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Table Description: Stores the information about a seat created in the database. A seat is a weak entity. | | | | | | | |
| **Field Name** | **Data Type** | **Length** | **Format** | **Key** | **Allow Null** | **Reference** | **Description** |
| Seat\_No | varchar | 10 | numeric | PK | No |  | Stores the seat number |
| Location | varchar | 30 | alphabet | PK | No |  | Stores the location |
| Date | DatE |  | date | PK FK | No | Production (Date) | Stores date of the production |
| Title | varchar | 50 | alphabet | PK FK | No |  | Stores production's unique ID |
| Taken | boolean |  | boolean |  |  |  | Determines if the seat is already taken |

**TICKET**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Table Description: Stores the information about a ticket created in the database. A ticket is an associative entity. | | | | | | | |
| **Field Name** | **Data Type** | **Length** | **Format** | **Key** | **Allow Null** | **Reference** | **Description** |
| Ticket\_ID | int | 20 | numeric | PK | No |  | Stores the ticket ID |
| Cost | int | 9 | numeric |  | No |  | Stores the cost of the ticket |
| Seat | varchar | 10 | numeric | PK | No | Seat (Seat\_No) | Stores the seat number |
| Title | varchar | 50 | alphabet | PK FK | No | Production (Title) | Stores production's title |
| Date | DatE |  | date | PK FK | No | Production (Date) | Stores date of the production |
| User\_ID | Int | 20 | numeric | PK | No |  | Stores user’s unique ID |
| Location | varchar | 30 | alphabet | PK | No | Seat (Location) | Stores the location |

1. Views

|  |  |  |
| --- | --- | --- |
| **View Name** | **Base Tables** | **Description** |
| ProdMembers | Production, Member | Members of the Production |
| PlayAttenders | User, Ticket | Attenders of the Play |
| ProdSponsors | Sponsorship | Sponsors of a certain production |
| PlaysAvailable | Play | Plays available |
| SeatsAvailable | Seats, Play | Seats that are available on a play |
| PlayCast | Cast | Cast of the Play |
| Playwrights | Play | Playwrights of the theater group |

1. Indexes

|  |  |  |
| --- | --- | --- |
| **Index Table** | **Reference** | **Description** |
| Member\_index | Member (LName) | users do not have access to Member's ID so the reference is on the member's Last name |
| User\_index | User (Username) | users do not have access to User's ID so the reference is on the user's username |