**DBS – Final Assignment Planning**

Scenario B: Film festivals around the world are a platform to showcase cinematic and popular films and appreciate the people in the film industry. There are many film festivals happening around the world. Cannes Film Festival and Cairo International Film Festival are some examples. Film festivals recognize the people in the industry with several categories of awards including actors, directors, and technical people as well as the films itself. Assume you or your friends are interested in film festivals around the world (either one large festival or several festivals) and wish to know about festival location, awards given in each year, who got awards, award winning film’s details etc. and all interesting things about film festivals.

**(In this case we are choosing to record 1 festival that is held over many years)**

**Entity Set Planning**

|  |  |  |
| --- | --- | --- |
| Entity Set | Keys | Attributes |
| Festival | festID | Location, Date |
| Award | awardID | Title, award type, Date |
| Film Award | awardID | filmID, Date |
| Actor Award | awardID | actorID, Date |
| Film | filmID | Title, Genre, Description |
| Actor | ActorID | First name, last name, gender |

**Relationship set planning**

|  |  |  |
| --- | --- | --- |
| Relationship Set | Between Which Entities | Attributes (if any) |
| Casts | Film, Actor | Role |
| Win | Actor, Award | Date |
| Win | Film, Award | Date |
| Given at | Award, Festival |  |
| Is A | Award, Actor Award |  |
| Is A | Award, Film Award |  |

**Constraints**

|  |  |  |
| --- | --- | --- |
| Relationship Sets | Between which entities | Cardinality |
| Casts | Film, Actor | Many-to-many, (A film can cast many actors. An actor can act in many films) |
| Wins | Actor, Award | One-to-many, (An actor can win many awards. An award is presented to 1 actor) |
| Wins | Film, Award | One-to-many, (A film can win many awards. An award is presented to 1 film.) |
| Given at | Award, Festival | Many-to-one, (Many awards are given at a festival, at one festival many awards are given.) |
| Is A | Award, Actor Award | One-to-one, (An actor award is an award) |
| Is A | Award, Film Award | One-to-one, (A film award is an award) |

**Participation**

|  |  |  |
| --- | --- | --- |
| Relationship Sets | Between which entities | Participation |
| Casts | Film, actor | Film – total, Actor – Partial  (A film must have actors in it, an actor may or may not act in a film) |
| Presented | Actor, Actor Award | Actor – partial, Award – total  (An actor may or may not win an award. An award must be given to an actor) |
| Presented | Film, Film Award | Film – partial, Award – total  (A film may or may not win an award. An award must be given to a film.) |
| Given At | Award, Festival | Award – total, Festival – Total (A festival must have awards, an award must be presented at a festival) |
| Is A | Award, actor award | Award – partial, actor award – total (An award may or may not be an actor award, but an actor award must be an award) |
| Is A | Award, film award | Award – partial, actor award – total (An award may or may not be an film award, but a film award must be an award) |

Diagram

Description automatically generated**ER Diagram**

**Relational Schema**

|  |  |  |
| --- | --- | --- |
| Entity Set | Key | Other Attributes |
| Festival | fest\_ID (primary key) | location, date |
| Award | award\_ID (primary key) | title, date |
| Film Award | award\_ID (foreign key),  film\_id (foreign key) | Title, date |
| Actor Award | award\_ID (foreign key),  actor\_ID (foreign key) | Title, date |
| Film | film\_ID (primary key) | Title, genre, description |
| Actor | actor\_ID (primary key) | First name, last name, gender |
| Casts | actor\_ID (foreign key),  film\_ID (foreign key) | Role |

**Festival**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Fields | Data Type | Size | Null | Description |
| fest\_ID (primary key) | CHAR | 4 | No | ID of festival in format ‘F-00’. |
| Location | VARCHAR | 50 | No | Location where festival is held |
| Date | DATE |  |  | Year festival was held |

**Award**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Fields | Data Type | Size | Null | Description |
| award\_ID (primary key) | CHAR | 5 | No | ID of the award in form ‘FA-00’ for film award or ‘AA-00’ for actor award |
| Title | VARCHAR | 24 | No | Title of the award presented |
| Date | DATE |  |  | Date which award is presented |

**Film Award**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Fields | Data Type | Size | Null | Description |
| award\_ID (primary key) | CHAR | 5 | No | ID of the film award in form ‘FA-00’ |
| film\_ID  (Foreign key) | CHAR | 4 | No | ID of the film in form ‘F-00’ |
| Title | VARCHAR | 48 |  | Title of the film |
| Date | DATE |  |  | Date which award is presented |

**Actor Award**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Fields | Data Type | Size | Null | Description |
| award\_ID (primary key) | CHAR | 5 | No | ID of the actor award in form ‘AA-00’ |
| actor\_ID  (Foreign key) | CHAR | 4 | No | ID of actor in form ‘A-0’ |
| Title | VARCHAR | 48 |  | Title of the film |
| Date | DATE |  |  | Date which award is presented |

**Film**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Fields | Data Type | Size | Null | Description |
| film\_ID  (primary key) | CHAR | 4 | No | ID of film in form ‘F-00’ |
| Title | VARCHAR | 50 | No | Title of the film |
| Genre | VARCHAR | 24 |  | Genre of the film |
| Description | MEDIUMTEXT |  |  | Description of film |

**Actor**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Fields | Data Type | Size | Null | Description |
| actor\_ID  (primary key) | CHAR | 4 | No | ID for actor in form ‘A-00’ |
| First name | VARCHAR | 24 | No | First name of the actor |
| Last name | VARCHAR | 24 |  | Last name of actor |
| Gender | CHAR | 1 |  | Gender of the actor ‘M’ = male, ‘F’ = female, ‘O’ = other. |

**Casts**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Fields | Data Type | Size | Null | Description |
| actor\_ID  (Foreign key) | CHAR | 4 | No | ID of actor in form ‘A-0’ |
| film\_ID  (Foreign key) | CHAR | 4 | No | ID of the film in form ‘F-00’ |
| Role | VARCHAR | 40 |  | Role Actor plays in film. |