Triggers and Assertions

* Cinderellas (Table)
  + newCinderella (name of trigger)
    - Upon an insert into the Cinderellas table, a tuple will be inserted into the CinderellaTimestamp table with the inserted cinderella’s id, current time, and status of 1 (Pending).

(what it does)

* + - This is used as a way of making sure that when a Cinderella is inserted in the database that her status is automatically 1 (Pending).

(other)

(why)

* + - This will then trigger the statusUpdate in the CinderellaTimestamp table.
* CinderellaTimestamp
  + statusUpdate
    - Upon an insert into the CinderellaTimestamp table (meaning that a cinderella’s status has changed), the Cinderella whose ID was inserted will have their currentStatus attribute in the Cinderellas table updated to the status that was inserted.
    - This is used to update the Cinderellas currentStatus whenever there is a new log entry in the CinderellaTimestamp table.
  + CinCheckOutStatusUpdate
    - If the Cinderella status is being changed to 6 (Alterations) or 7 (CheckOut), then the a tuple will be inserted into the FairyGodmotherTimestamp with a status of 1 (Unavailable), current time, and the id of the paired fairyGodmother.
    - This is used to check out a fairyGodmother once she has finished shopping with the Cinderella.
    - This will then trigger the FGstatusUpdate in the FairyGodmotherTimestamp table.
  + CinDeleteStatusUpdate
    - When a tuple is deleted from the CinderellaTimestamp table, then grab the last known status of the Cinderella and set it to be her currentStatus. If there is no last known status, then set currentStatus to 1 (Pending). If the deleted tuple held a status of 3 (Paired), then remove the fairyGodmother associated/paired to the Cinderella.
    - This is used for when trying to undo status changes and to keep the database in a correct state.
* FairyGodmothers
  + newFG
    - Upon an insert into the FairyGodmothers table, a tuple will be inserted into the FairyGodmotherTimestamp table with the inserted fairygodmother’s id, current time, and status of 1 (Unavailable).
    - This is used as a way of making sure that when a fairyGodmother is inserted in the database that her status is automatically 1 (Unavailable).
    - This will then trigger the FGstatusUpdate in the FairyGodmotherTimestamp table.
* FairyGodmotherTimestamp
  + FGstatusUpdate
    - Upon an insert into the FairyGodmotherTimestamp table (meaning that a fairyGodmother’s status has changed), the fairyGodmother whose ID was inserted will have their currentStatus attribute in the FairyGodmothers table updated to the status that was inserted.
    - This is used to update the Cinderellas currentStatus whenever there is a new log entry in the CinderellaTimestamp table.
    - Similar to the Cinderella statusUpdate trigger.
  + CinShoppingStatusUpdate
    - When a tuple is inserted into the FairyGodmotherTimestamp table with a status of 3 (Shopping), grab the last known paired Cinderella of the fairyGodmother and then insert into the CinderellaTimestamp table with a status of 4 (Shopping), the current time, and id of the last known paired Cinderella.
    - This is used to set a Cinderella shopping when the fairyGodmother is set to shopping.
    - This will then trigger the Cinderella statusUpdate trigger.
  + FGDeleteStatusUpdate
    - When a tuple is deleted from the FairyGodmotherTimestamp table, then grab the last known status of the fairyGodmother and set it to be her currentStatus. If there is no last known status, then set currentStatus to 1 (Unavailable).
    - This is used for when trying to undo status changes and to keep the database in a correct state.
    - This is similar to the CinDeleteStatusUpdate trigger.

**Note: The currentStatus attribute of the Cinderellas and FairyGodmothers should only ever be modified by one of these triggers. They should never be modified directly.**