Team 15 - Museum

1. User roles and types of data that can be read, added, modified, and removed according to the user authorization
   a. **MANAGER**
      i. Add, Remove, and Update: Exhibits, Artworks, Calendar, Gift Shop, Movies
      ii. View Subscriptions, Alerts, and Emails
      iii. View total Income, Gift Shop, and Visitor reports
   b. **VISITOR**
      i. Update: Membership Status, Personal Zip Code
      ii. View Parking Passes
      iii. Add Tickets for General
      iv. Add Tickets for Tour
      v. Add Parking
      vi. Add Contact Us
1. The semantic constraints which are implemented as triggers
   a. **Trigger 1**
      i. After any update on subscriptions, the status is set to expired if the expiration date has passed. In addition, the status is set to expired automatically if there is an attempt to insert a new subscription with an expiration date that has already passed.
   b. **Trigger 2**
      i. After a subscription status is changed to expired (or if a subscription tuple is inserted with an expired status), an alert is generated into the alerts table that tells the associated member id that their subscription has ended.
   c. **Trigger 3**
      i. After an update or before an insertion on the exhibits table, if the exhibit ends in the next 3 days, an email is generated for each active subscription informing them that the exhibit is closing soon, said email is placed in the emailstosend table.
   d. **Trigger 4**
      i. After an update on the gift shop table, if the new income for an item is greater than the old item, a new tuple is inserted into the giftshoppurchases table, with the name, cost, and date of purchase (pulled as curdate when the tuple is activated). This is so that each individual purchase can easily be tracked on a day-by-day basis.
   e. The code for the triggers can be found at the bottom of the Team15_Museum_FinalDump.sql file.
2. Types of reports available
   a. **Income Report:** Displays how much income from Donations, Gift Shop, Restaurant, and Parking was generated for a specific date range. This report can be used by Managers to track the gross income of the museum for a time range.

       i.   Located in the manager page.

  b. **Gift Shop Report:** Displays each gift shop item, how much of each have been sold, and the total income generated by each gift shop item for a specific date range.

       i.   Located in the manager page.

  c. **Visitor Report**: Displays the average time spent in the museum based on the visitor age. This report partitions ages to 5 year periods and shows how much they spent time in the museum. It also pulls data from the table TICKETS in order to check when the visitor purchased the ticket so we can filter results based on the date.

       i.   Located in the manager page.

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