CSC-363 Final Project

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Rewards application database

**PROJECT DESCRIPTION:**

**The project is a small customer purchase, award, and reward tracking system. It takes customer data including basic name, email, phone info, provides for quick lookups while completing a transaction. The system can take transaction information and record point-based awards for a variety of reasons in response to the transactions, or birthday, or whatever. Using the award points will generate a negative record in the award table and a positive record in the reward. The summary table is also updated to reflect current amounts.**

**The basic elements are:**

* **customer lookup**
* **customer transaction statement**
* **customer award statement**
* **tracking of customer rewards (awards used)**
* **awards could be given for any reason**
* **awards will all be in points**

Design Description:

**DB follows 3rd normal form using relationships for data where needed. The customer table has all related information in the table because these values are all queried together when doing lookups to find customers by either phone or email. The customer id pk value generated in this table is a fk relationship in the other tables.**

**The award table has fk relationships to the customer table and the award type table. The transaction table reference, transaction\_id, is nullable since awards could be generated for non-transaction purposes. These relationships could easily have been extracted to another table but this is a low volume table and will be well indexed.**

Project Files Included:

* rewards\_er\_diagram.pdf
  + ER diagram for the rewards database tables
  + Shows all columns and relationships
  + Exported from MySql Workbench as a pdf
* reward\_schema.sql
  + defines the tables, primary and foreign key relationships, indexes, etc. for the tables in the rewards database
* rewards\_data\_inserts.sql
  + insert statements and test queries to add data to each of the tables
  + inserts follow the relationships for the tables and are examples of how the database would be used in a production example
  + delete statements to allow re-insert are also included as commented statements
* rewards\_queries.sql
  + a list of example queries showing real world uses of the tables
  + comments included with the queries describe the specific use and data values being retrieved
* rewards\_view.sql
  + an example of a customer and summary data view
  + comments in the script describe the details and expected use of the view
* rewards\_procs.sql
  + **added for extra credit**
  + a list of example stored procedures
  + examples provided include comments describing their purpose and data retrieved
  + examples of calls to the procs are included as commented statements at the top of the script