

Database schema diagram: An ER diagram representing relationships b/w tables SQL script for table creation: SQL code for the create each table stored procedures and triggers:

SQL scripts for the stored procedures and triggers.

mentioned above.

Query scripts: SQL code for the required queries.

Documentation: A document explaining the logic behind the stored procedures, queries, and triggers.

submit the database schema,

SQL scripts, and documentation

as a single zip file

on the total amount of the stay and other criteria?
Automatically add points to the customer's total after
each stay tier upgrade procedure!

Implement a procedure

SP-upgrade - tier that checks
each customer's accumulated points and upgrades their
tier if upgrade occurs

Queries to analyze loyalty program performance:
write SQL queries to gather insights on:

Customer Retention Rate:

No. of returning customers with a certain period

Reward utilization: Number of rewards issued
vs. redeemed tier distribution: No. of customers
in each tier (e.g. Bronze, silver, gold).

Tier Upgrade Notification:

Create a trigger to notify customer (by
updating a notifications table or a simple log)
when they achieve a new tier.

Reward Milestone Notification: set a trigger
to notify customer when they to notify customer
when they enough points to redeem specific
rewards

points_earned

Rewards: track each customer's rewards earned and redeemed

reward_id (Primary key)

customer_id (foreign key)

reward_type

customer_id (Reward_code)

points_required

status (e.g. "redeemed", "active")

Tier: Define different tiers and point thresholds.

tier_id (primary key)

tier_name (e.g. Bronze, Silver, Gold)

points_threshold (points needed to qualify for this tier)

tier_benefits

Tier_upgrades: Log any tier changes for each customer.

upgrade_id (Primary key)

customer_id (foreign key)

previous_tier, new_tier

upgrade_code

stored procedures

calculate points for each stay:

Implement a stored procedure.

sp_calculate_points to calculate points earned based

M. Vishwa Teja
192311399

Assignment : 1

DBMS

- CSA0593

+ Hotel chain customer loyalty program Develop a database to manage customer loyalty programs for a hotel chain tracking stays, rewards, and their status.

Requirements: Design tables for customers, stays, rewards and their upgrades. Implement stored procedures to calculate points for each stay and automatically upgrade tiers based on points. Write queries to analyze loyalty.

Assignment Outline

Database Design:

Objective: Create a relational database schema that includes tables for tracking customers, their stays, rewards and tier upgrades.

Tables to create :

customers: stores information about each customer.

customer_id (Primary key)

first_name, last_name

email, phone_number

join_date

current_tier (foreign key from tier table)

stays: tracks each stay by a customer

stay_id (Primary key)

customer_id (foreign key)

check-in-date, check-out-date

room-type, total_amount