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TABLES

Hotel

Hotel\_Phones

Has\_Room

Reserves

Offer-Room

Breakfast\_Offers

Service\_Provides

Includes

Contains

Reservation

Makes

Writes

Customer

Credit card

Review

RoomReview\_Evaluates

BreakfastReview\_Assesses

ServiceReview\_Rates

ASSUMPTIONS

* ReviewID, CID, and other IDs are represented by char(15) instead of int to account for the possibility of leading zeroes in the IDs. We assumed that ID lengths will be 15 characters exactly.
* If a Hotel is deleted, it is no longer necessary for the database to store any info pertaining to that hotel’s rooms, services, breakfasts, etc. and their respective reviews
* Reviews written by customers who are removed from the database in turn deleted themselves. Only reviews by customers still in the database will be stored.
* There is no need to store any information pertaining to a given reservation if the reservation is deleted.
* The Hotel and Hotel\_Phone are not linked with a foreign key constraint here, but when making the queries for the next deliverables, we will be joining these two tables on HotelID in order to connect the Phone Numbers to the Hotels.
* TotalAmt is a derived attribute and therefore the value will be set during the next deliverable
* Credit card security code assumed to be 3 characters long.
* Discount is a percentage, so represented as type “real” in this database

Create table Hotel(

HotelID char(15),

Street varchar(20),

City varchar(20),

State varchar(20),

Zip char(5),

Country varchar(20),

Primary key (HotelID)

);

Create table Hotel\_Phones(

Phone\_no char(10),

HotelID char(15) NOT NULL,

Primary key (Phone\_no),

);

Create table Customer(

CID char(15),

Email varchar(40),

Address varchar(100),

Phone\_No varchar(14),

Name varchar(30),

Primary key(CID)

);

Create table CreditCard(

CNumber char(15),

Billing\_address varchar(50),

Name varchar(30),

SecCode char(3),

Type varchar(15),

ExpDate Date,

Primary key(Cnumber)

);

Create table Makes(

CID char(15),

CNumber char(15),

InvoiceNo char(15),

Primary key(CID, Cnumber, InvoiceNo),

Foreign key(CID) references Customer(CID) ON DELETE CASCADE,

Foreign key(Cnumber) references CreditCard(Cnumber) ON DELETE CASCADE,

Foreign key(InvoiceNo) references Reservation(InvoiceNo) ON DELETE CASCADE

) ;

Create table Writes(

ReviewID char(15),

CID char(15),

Primary key(ReviewID,CID),

Foreign key(ReviewID) references Review(ReviewID) ON DELETE CASCADE,

Foreign key(CID) references Customer(CID) ON DELETE CASCADE

);

Create table Reservation(

InvoiceNo char(15),

ResDate date,

TotalAmt real,

Primary key(InvoiceNo)

);

Create table Reserves(

InvoiceNo char(15),

Room\_No int,

HotelID char(15),

InDate date,

OutDate date,

NoOfDays int,

Primary key(InvoiceNo, Room\_No, HotelID),

Foreign key(InvoiceNo) references Reservation(InvoiceNo) ON DELETE CASCADE,

Foreign key(Room\_No, HotelID) references has\_room(Room\_No, HotelID) ON DELETE CASCADE,

CHECK (NoOfDays = DateDiff(OutDate, InDate) )

);

Create table Has\_Room(

Room\_no int,

HotelID char(15),

Price real,

Capacity int,

Floor\_no int,

Description varchar(100),

Type varchar(15),

Primary key(room\_no, HotelID),

Foreign key(HotelID) references Hotel(HotelID) ON DELETE CASCADE);

Create table Offer\_Room(

HotelID char(15),

Room\_no int,

SDate date,

EDate date,

Discount real,

primary key (Room\_no, HotelID),

foreign key (Room\_no, HotelID) references Has\_Room(Room\_No, HotelID) ON DELETE CASCADE

);

Create table Breakfast\_Offers(

bPrice real,

Description varchar(200),

bType varchar(10),

HotelID char(15),

Primary key(bType, HotelID),

Foreign key(HotelID) references Hotel(HotelID) ON DELETE CASCADE

);

Create table Service\_Provides(

sCost real,

sType varchar(10),

HotelID char(15),

Primary key(sType, HotelID),

Foreign key(HotelID) references Hotel(HotelID) ON DELETE CASCADE

);

Create table Review(

ReviewID char(15),

Rating int,

Text\_comment varchar(200),

Primary key(ReviewID)

);

Create table ServiceReview\_Rates(

ReviewID char(15),

sType varchar(10),

HotelID char(15),

Primary key(ReviewID,sType, HotelID),

Foreign key(sType, HotelID) references Service\_Provides(sType, HotelID) ON DELETE CASCADE,

Foreign key (ReviewID) references Review(ReviewID) ON DELETE CASCADE

);

Create table BreakfastReview\_Assesses(

ReviewID char(15),

bType varchar(10),

HotelID char(15),

Primary key(ReviewID,bType, HotelID),

Foreign key(bType, HotelID) references Breakfast\_Offers(bType, HotelID) ON DELETE CASCADE,

Foreign key (ReviewID) references Review(ReviewID) ON DELETE CASCADE

);

Create table RoomReview\_Evaluates(

ReviewID char(15),

Room\_No int,

HotelID char(15),

Primary key(ReviewID, Room\_No, HotelID),

Foreign key (ReviewID) references Review(ReviewID) ON DELETE CASCADE,

Foreign key (Room\_No, HotelID) references Has\_Room(Room\_No, HotelID) ON DELETE CASCADE

);

Create table Includes(

InvoiceNo char(15),

bType varchar(10),

HotelID char(15),

Primary key(HotelID, bType, InvoiceNo),

Foreign key(HotelID, bType) references Breakfast\_Offers(HotelID, bType) ON DELETE CASCADE,

Foreign key(InvoiceNo) references Reservation(InvoiceNo) ON DELETE CASCADE

);

Create table Contains(

InvoiceNo char(15),

sType varchar(10),

HotelID char(15),

Primary key(HotelID, sType, InvoiceNo),

Foreign key(HotelID, sType) references Service\_Provides(HotelID, sType) ON DELETE CASCADE,

Foreign key(InvoiceNo) references Reservation(InvoiceNo) ON DELETE CASCADE

);