Smart City Database Relational Model

Team 98

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Contents

Tables:

Addresses (addressID, streetNo, streetName, streetType, suburb, city, state country)

PhoneNumbers (phoneID, phone number)

EmailAddresses (emailID, emailAddress)

IndustryTypes (typeID, industryType)

Departments (departmentID, departmentName)

UserTypes (typeID, userType)

Users (userID, firstName, lastName, password, addressID, phoneID, emailID, typeID)

Restaurants (restaurantID, name, addressID, phoneID, emailID)

Industries (industryID, name, addressID, typeID, emailID)

Colleges (collegeID, name, addressID, departmentID, emailID)

Malls (mallID, name, addressID, phoneID, emailID)

Libraries (libraryID, name, addressID, phoneID, emailID)

Hotels (hotelID, name, addressID, phoneID, emailID)

Parks (parkID, name, addressID, phoneID, emailID)

Zoos (zooID, name, addressID, phoneID, emailID)

Museums (museumID, name, addressID, phoneID, emailID)

Foreign keys

- Users (addressID) is dependent on Addresses (addressID)
- Users (phoneID) is dependent on PhoneNumbers (phoneID)
- Users (emailID) is dependent on EmailAddresses (emailID)
- Users (typeID) is dependent on UserTypes (typeID)
- Restaurants (addressID) is dependent on Addresses (addressID)
- Restaurants (phoneID) is dependent on PhoneNumbers (phoneID)
- Restaurants (emailID) is dependent on EmailAddresses (emailID)
- Industries (addressID) is dependent on Addresses (addressID)
- Industries (typeID) is dependent on IndustryTypes (typeID)
- Industries (emailID) is dependent on EmailAddresses (emailID)
- Colleges (addressID) is dependent on Addresses (addressID)
- Colleges (departmentID) is dependent on Departments (departmentID)
- Colleges (emailID) is dependent on EmailAddresses (emailID)
- Malls (addressID) is dependent on Addresses (addressID)
- Malls (phoneID) is dependent on PhoneNumbers (phoneID)
- Malls (emailID) is dependent on EmailAddresses (emailID)
- Libraries (addressID) is dependent on Addresses (addressID)
- Libraries (phoneID) is dependent on PhoneNumbers (phoneID)
- Libraries (emailID) is dependent on EmailAddresses (emailID)
- Hotels (addressID) is dependent on Addresses (addressID)
- Hotels (phoneID) is dependent on PhoneNumbers (phoneID)
- Hotels (emailID) is dependent on EmailAddresses (emailID)
- Parks (addressID) is dependent on Addresses (addressID)
- Parks (phoneID) is dependent on PhoneNumbers (phoneID)
- Parks (emailID) is dependent on EmailAddresses (emailID)
- Zoos (addressID) is dependent on Addresses (addressID)
- Zoos (phoneID) is dependent on PhoneNumbers (phoneID)
- Zoos (emailID) is dependent on EmailAddresses (emailID)
- Museums (addressID) is dependent on Addresses (addressID)
- Museums (phoneID) is dependent on PhoneNumbers (phoneID)
- Museums (emailID) is dependent on EmailAddresses (emailID)

Other Constraints

- It is assumed that all primary keys must be unique
- It is assumed that all non-mandatory fields are stored as 'null'