Normalized Schema Overview

- Person(<u>ID</u>: char(16), uname: char(32), email: char(255))
  - ID: PK
  - uname: NOT NULL
  - email: UNIQUE NOT NULL

- TouristGroup(<u>ID</u>: char(16), title: char(32))
  - ID: PK

- Member(<u>**userID**</u>: char(16), <u>**groupID**</u>: char(16))
  - PK/CK: (userID, groupID)
  - FK (userID) references Person(ID)
  - FK (groupID) references TouristGroup(ID)

- Guide(<u>ID</u>: char(16), title: char(32)**, authorID:** char(16))
  - ID: PK
  - authorID: NOT NULL
  - FK (authorID) references Person(ID)

- Itinerary(<u>ID</u>: char(16), title: char(32))
  - ID: PK

- GroupPlans(<u>**itineraryID**</u>: char(16), **groupID:** char(16), maxParticipants: int)
  - itineraryID: PK
  - groupID: NOT NULL
  - FK (groupID) references TouristGroup(ID)
  - FK (itineraryID) references Itinerary(ID)

- UserPlans(<u>**itineraryID:**</u> char(16), **userID:** char(16))
  - itineraryID: PK
  - userID: NOT NULL
  - FK (userID) references Person(ID)
  - FK (itineraryID) references Itinerary(ID)

- City(<u>country</u>: char(32), <u>cityName</u>: char(32), <u>region</u>: char(32))
  - PK/CK: (country, cityName, region)

- Language(<u>country</u>: char(32), <u>region</u>: char(32), localLanguage: char(16))
  - localLanguage: NOT NULL
  - currency: NOT NULL
  - PK/CK: (country, region)

- Currency(<u>country</u>: char(32), currency: char(16))
  - country: PK
  - currency: NOT NULL

- Transport(<u>ID</u>: char(16), transportType: char(16))
  - ID: PK

- Location(<u>address</u>: char(128), **country**: char(32), **cityName**: char(32), **region:** char(32), locationName: char(32), opening: timestamp, closing: timestamp)
  - address: PK
  - FK (country, cityName, region) references City(country, cityName, region)

- Event(<u>eventName</u>: char(64), <u>startsAt</u>: timestamp, **address:** char(128), admissionPrice: float)
  - PK/CK: (eventName, startsAt, address)
  - FK (address) references Location(address)

- Attraction(**<u>address</u>**: char(128), admissionPrice: float, attractionType: char(16))
  - address: PK
  - FK (address) references Location(address)

- Dining(**<u>address</u>**: char(128), cuisine: char(16))
  - address: PK
  - FK (address) references Location(address)

- Hospitality(**<u>address</u>**: char(128), rate: float)
  - address: PK
  - FK (address) references Location(address)

- About(**<u>guideID</u>**: char(16)**, <u>address</u>**: char(128), description: varchar2(1000))
  - PK: (guideID, address)
  - FK (guideID) references Guide(ID)
  - FK (address) references Location(address)

- TravelsBetween(**itineraryID**: char(16)**, transportID**: char(16), <u>departure:</u> timestamp, arrival: timestamp, **toAddress**: char(128), **fromAddress**: char(128))
  - transportID: NOT NULL
  - toAddress: NOT NULL
  - fromAddress: NOT NULL
  - PK/CK: (itineraryID, transportID, departure)
  - FK (itineraryID) references Itinerary(ID)
  - FK (transportID) references Transport(ID)
  - FK (toAddress, fromAddress) references Location(address)