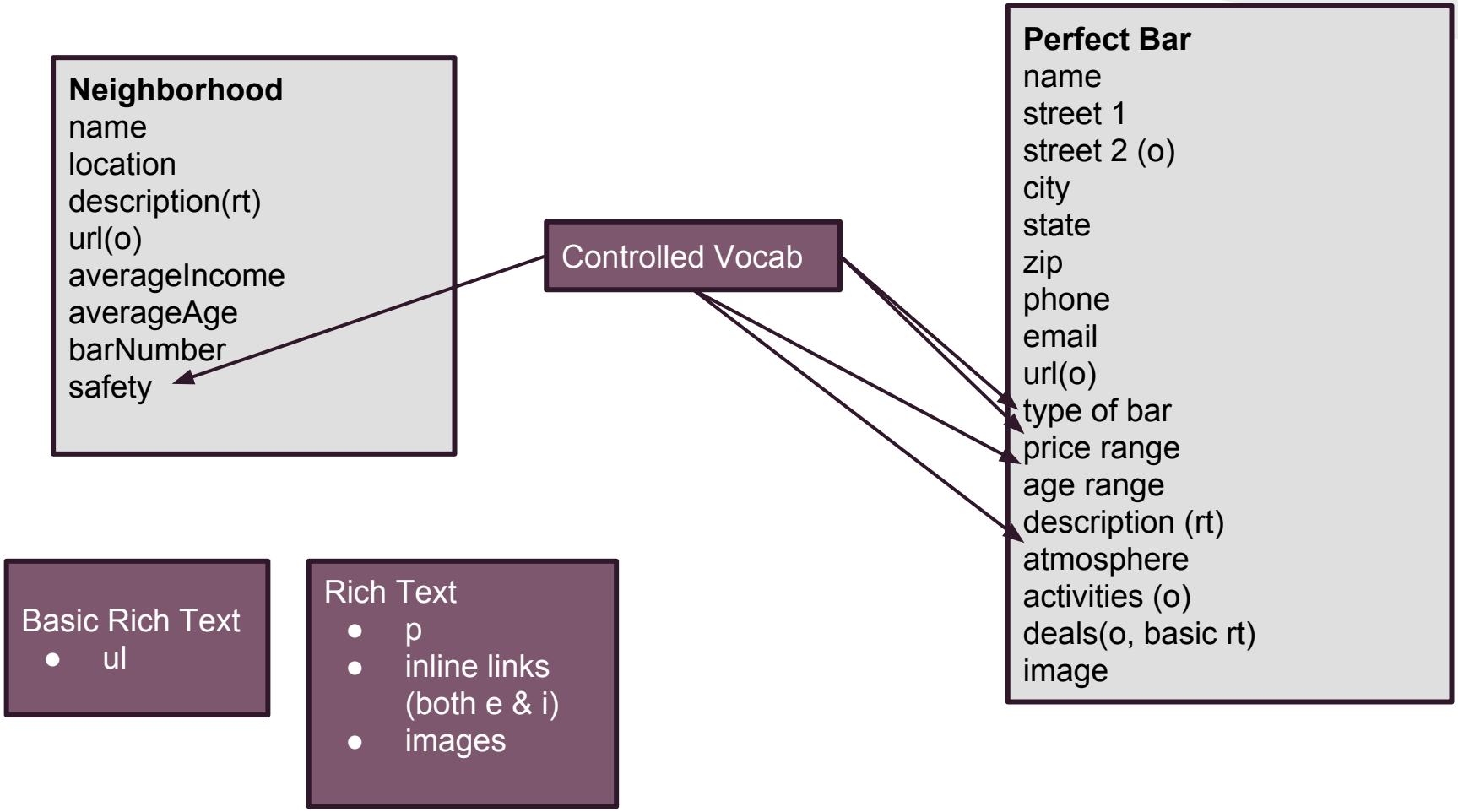
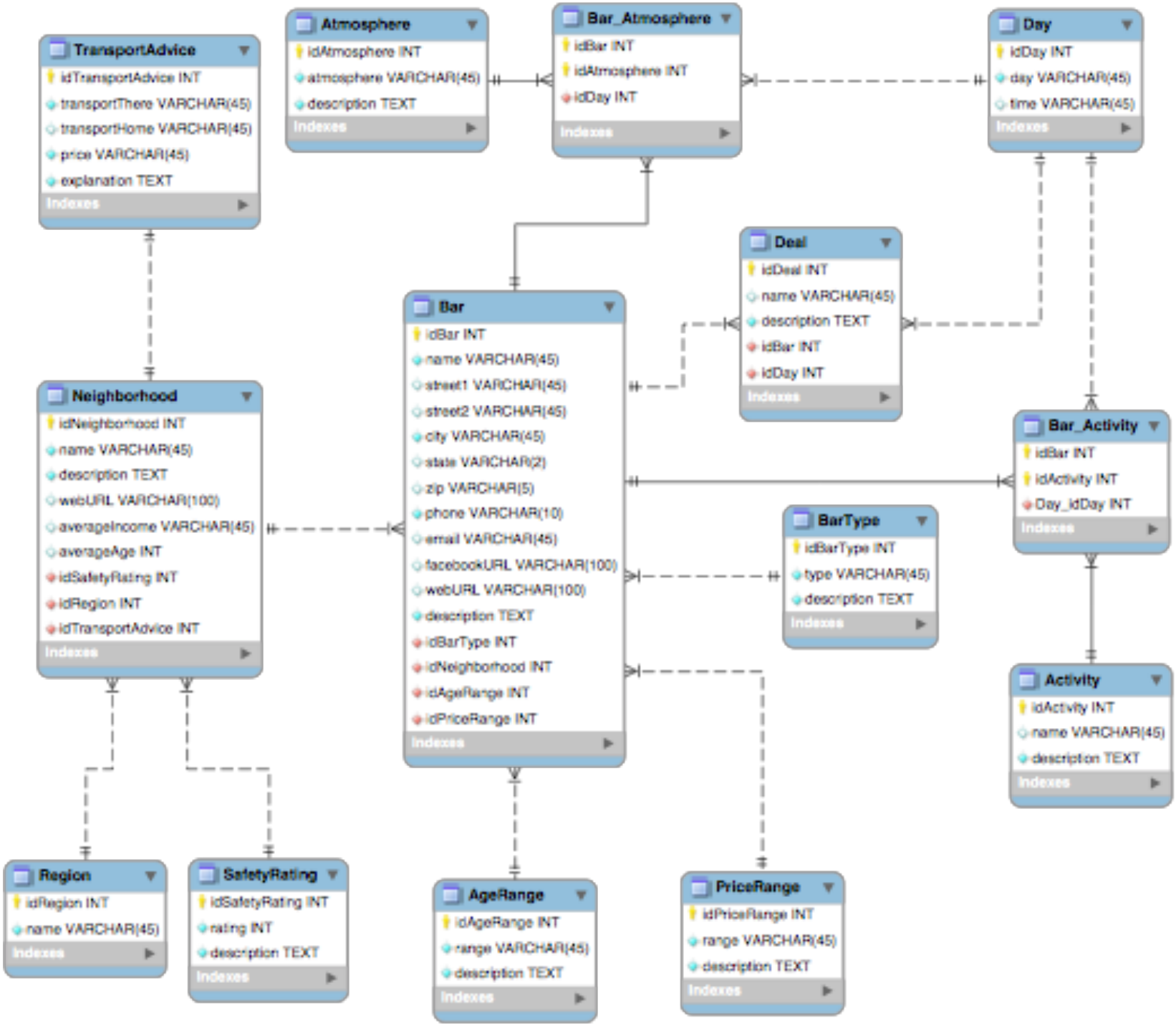
Info Type Model




TransportAdvice
idTransportAdvice INT
transportThere VARCHAR(45)
transportHome VARCHAR(45)
price VARCHAR(45)
explanation TEXT
Indexes
Atmosphere
idAtmosphere INT
atmosphere VARCHAR(45)
description TEXT
Indexes
Bar_Atmosphere
idBar INT
idAtmosphere INT
idDay INT
Indexes
Day
idDay INT
day VARCHAR(45)
time VARCHAR(45)
Indexes
Deal
idDeal INT
name VARCHAR(45)
description TEXT
idBar INT
idDay INT
Indexes
Bar
idBar INT
name VARCHAR(45)
street1 VARCHAR(45)
street2 VARCHAR(45)
city VARCHAR(45)
state VARCHAR(2)
zip VARCHAR(5)
phone VARCHAR(10)
email VARCHAR(45)
facebookURL VARCHAR(100)
webURL VARCHAR(100)
description TEXT
idBarType INT
idNeighborhood INT
idAgeRange INT
idPriceRange INT
Indexes
Neighborhood
idNeighborhood INT
name VARCHAR(45)
description TEXT
webURL VARCHAR(100)
averageIncome VARCHAR(45)
averageAge INT
idSafetyRating INT
idRegion INT
idTransportAdvice INT
Indexes
Bar_Activity
idBar INT
idActivity INT
Day_idDay INT
Indexes
BarType
idBarType INT
type VARCHAR(45)
description TEXT
Indexes
Activity
idActivity INT
name VARCHAR(45)
description TEXT
Indexes
Region
idRegion INT
name VARCHAR(45)
Indexes
SafetyRating
idSafetyRating INT
rating INT
description TEXT
Indexes
AgeRange
idAgeRange INT
range VARCHAR(45)
description TEXT
Indexes
PriceRange
idPriceRange INT
range VARCHAR(45)
description TEXT
Indexes

Access Structures

Info Need:

- What kind of bars are there in my area? — Hierarchy
- What can I afford? — Index/Sequence
- ~~What do my friends think?~~
- Which bar suits my mood right now? — Index/Association
- Are the people who hang out at this bar like me? — Index

Info Behavior:

- ~~Ask friends and family their opinion~~
- Look at rating and info on Yelp- phone or comp — Association
- Check out lots of bar's websites for specials — Index
- ~~Visit the bar for one's self~~

Association
Other bars in with a similar atmosphere in the same neighborhood
Neighborhood associated to Bar

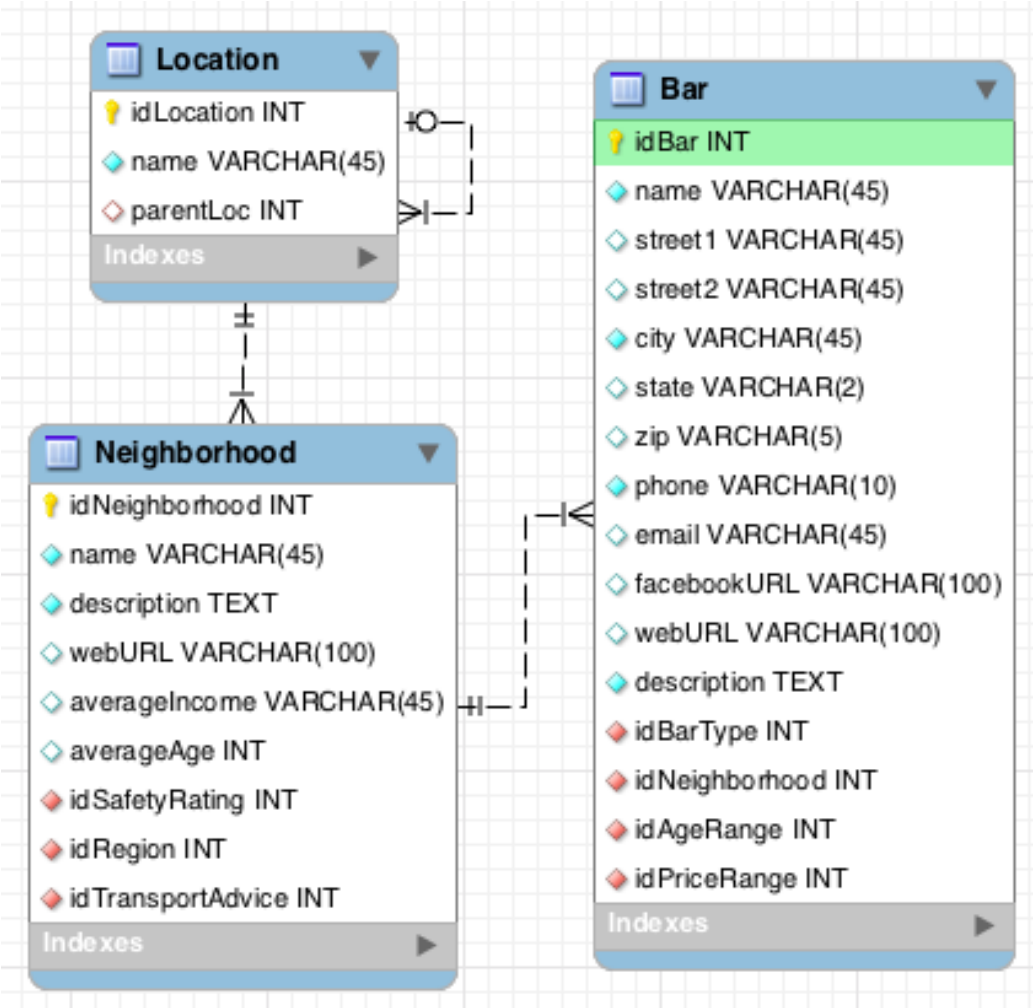
Index (Bar)
Name
Type
Atmosphere
Price Range
Age Range
Deal Types
Activity Types
Specials

Index (Neighbourhood)
Name
Safety

Hierarchy
Locations

Sequence
Best deals for you

Location Hierarchy



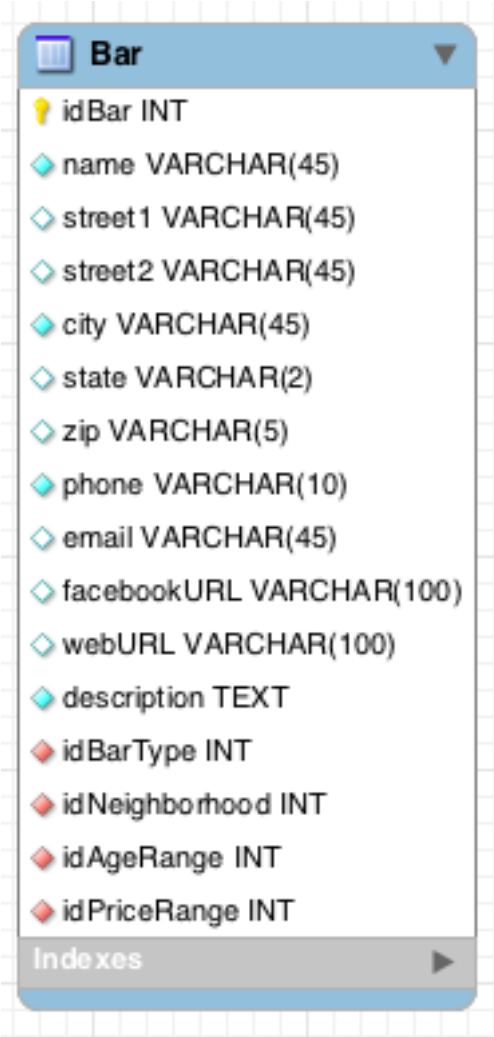
Query:

```
SELECT loc.id, loc.name
FROM Location loc
WHERE loc.parentLoc IS NULL
```

Logic:

First, the query is used to find the root location.
Second, recursion is used to find the child levels of location.

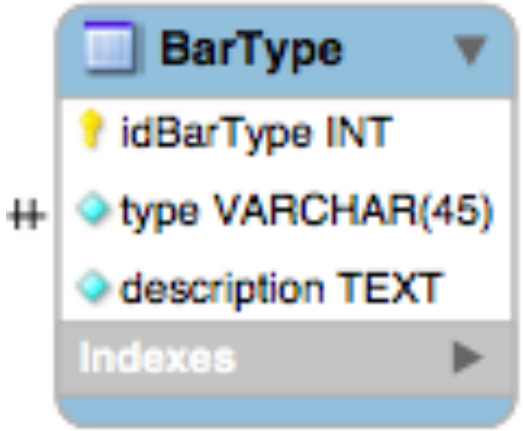
Bar Name Index



Query:

```
SELECT name FROM Bar ORDER BY name ASC
```

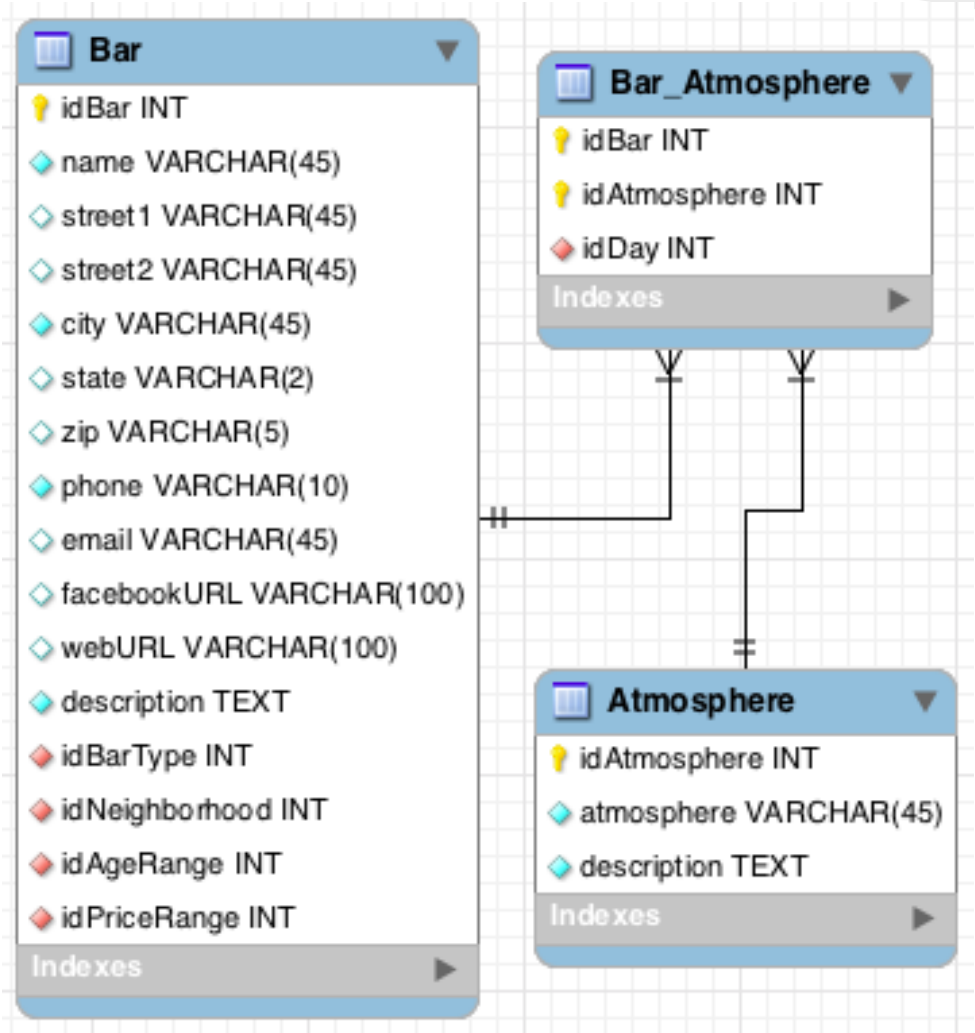
Bar Type Index



Query:

```
SELECT type
FROM BarType
ORDER BY type ASC
```

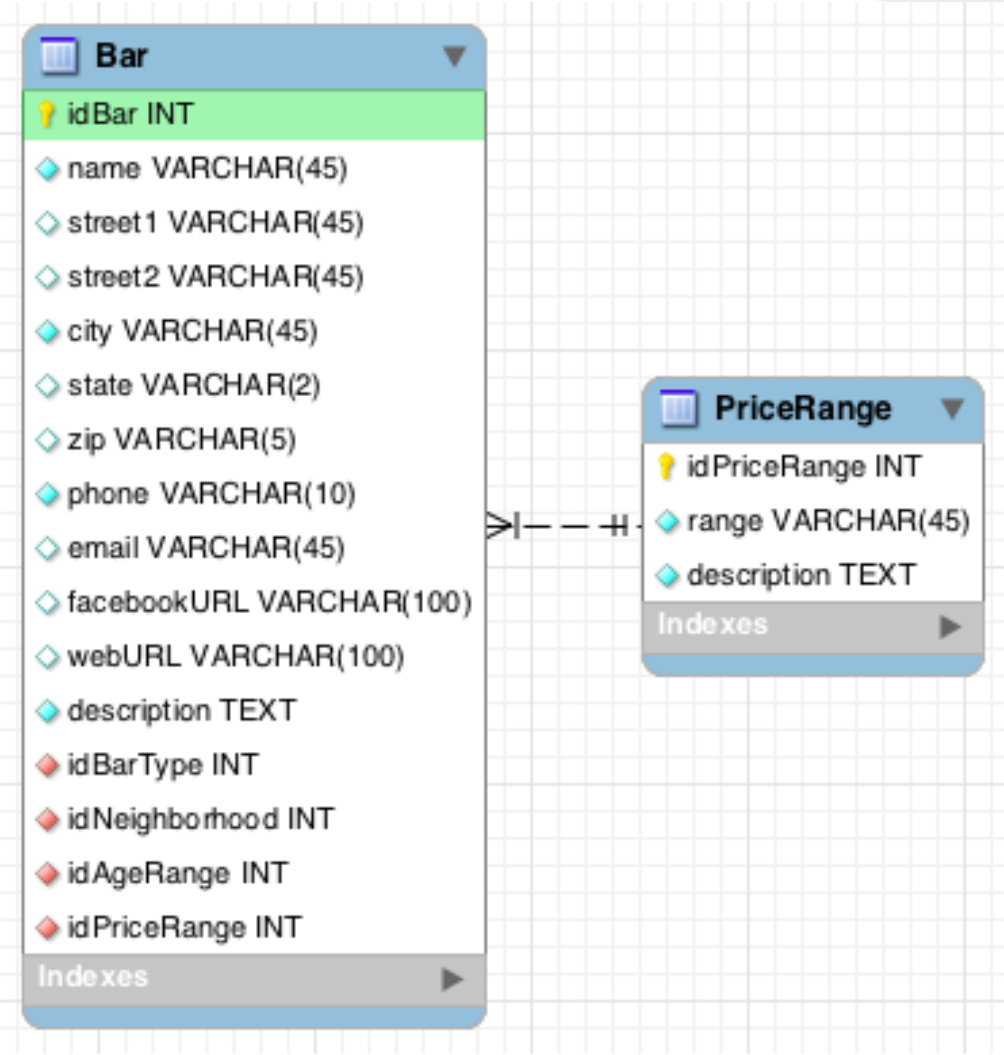
Bar Atmosphere Index



Query:

SELECT DISTINCT Bar.name, Atmosphere.atmosphere FROM Bar JOIN Bar_Atmosphere ON Bar.idBar = Bar_Atmosphere. idBar JOIN Atmosphere ON Bar_Atmosphere.idAtmosphere = Atmosphere.idAtmosphere ORDER BY Atmosphere. atmosphere

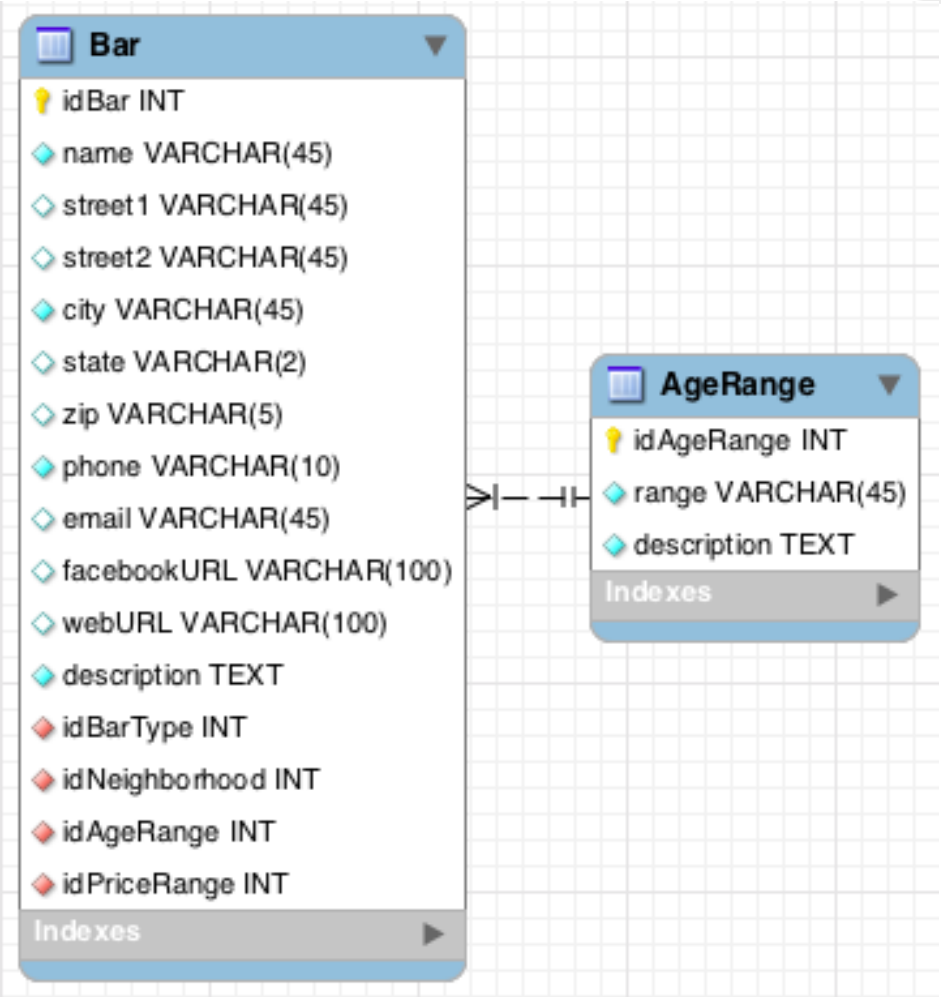
Bar Price Range Index



Query:

```
SELECT Bar.name,
PriceRange.range FROM
Bar JOIN PriceRange ON
Bar.idPriceRange =
PriceRange.idPriceRange
ORDER BY PriceRange.
range ASC
```

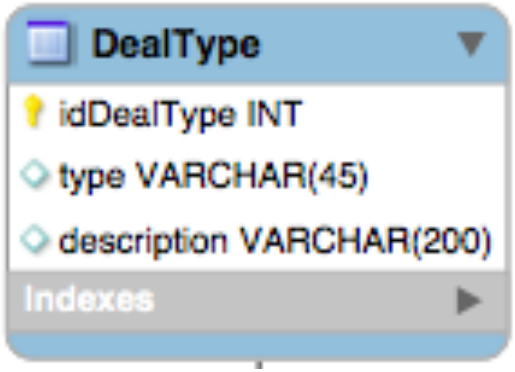
Bar Age Range Index



Query:

```
SELECT b.name, b.
description, ar.range
FROM Bar b
JOIN AgeRange ar
        ON b.idAgeRange = ar.
        idAgeRange
ORDER BY ar.range
```

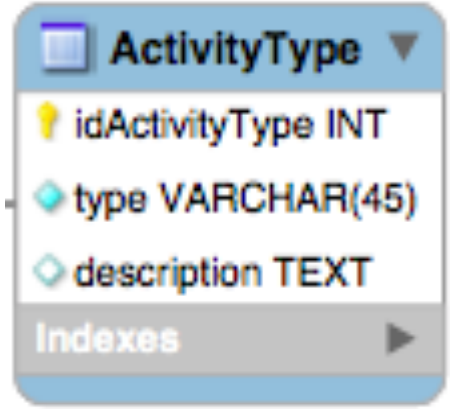
Deal Type Index



Query:

```
SELECT type
FROM DealType
ORDER BY type ASC
```

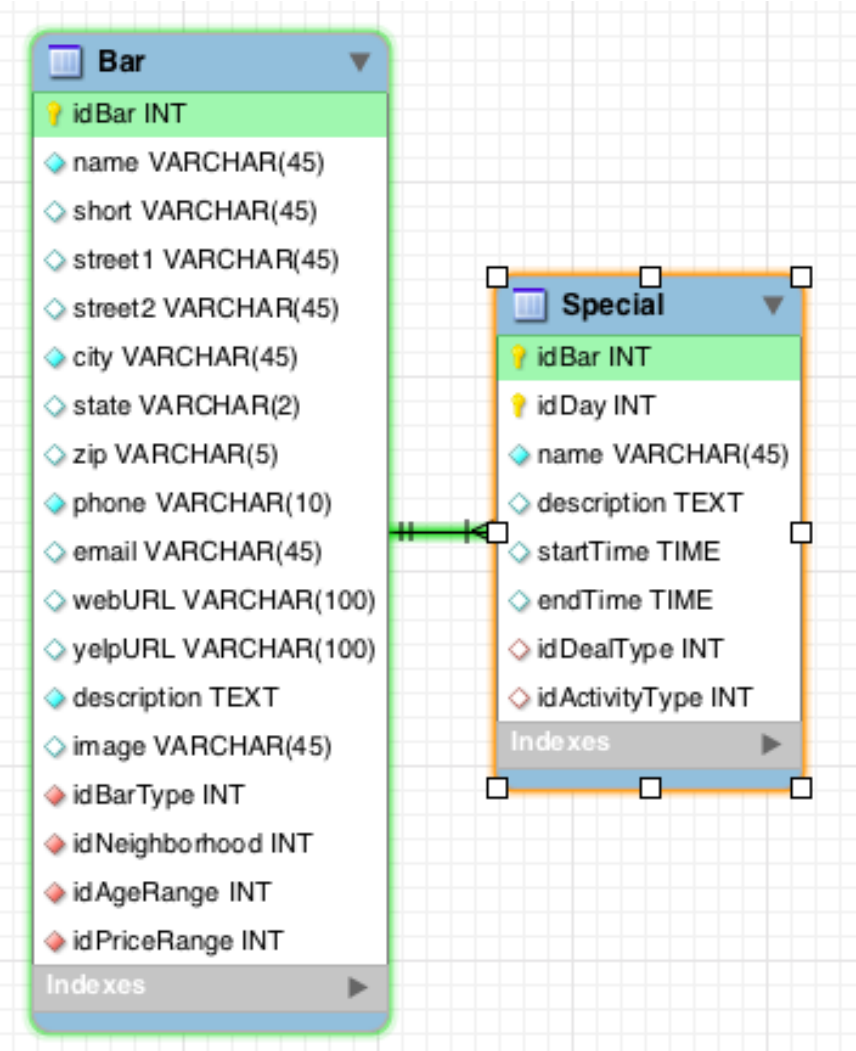
Activity Type Index



Query:

```
SELECT type
FROM ActivityType
ORDER BY type ASC
```

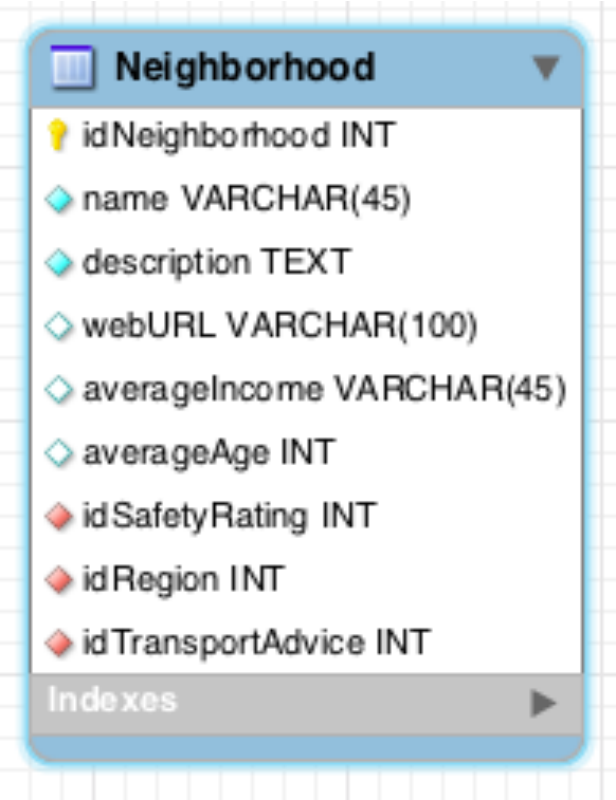
Bar Special Index



Query:

```
SELECT s.name, s.description,
s.startTime, s.endTime
FROM Special s
JOIN Bar b ON s.idBar = b.
idBar
WHERE b.idBar = (input)
ORDER BY s.startTime ASC
```

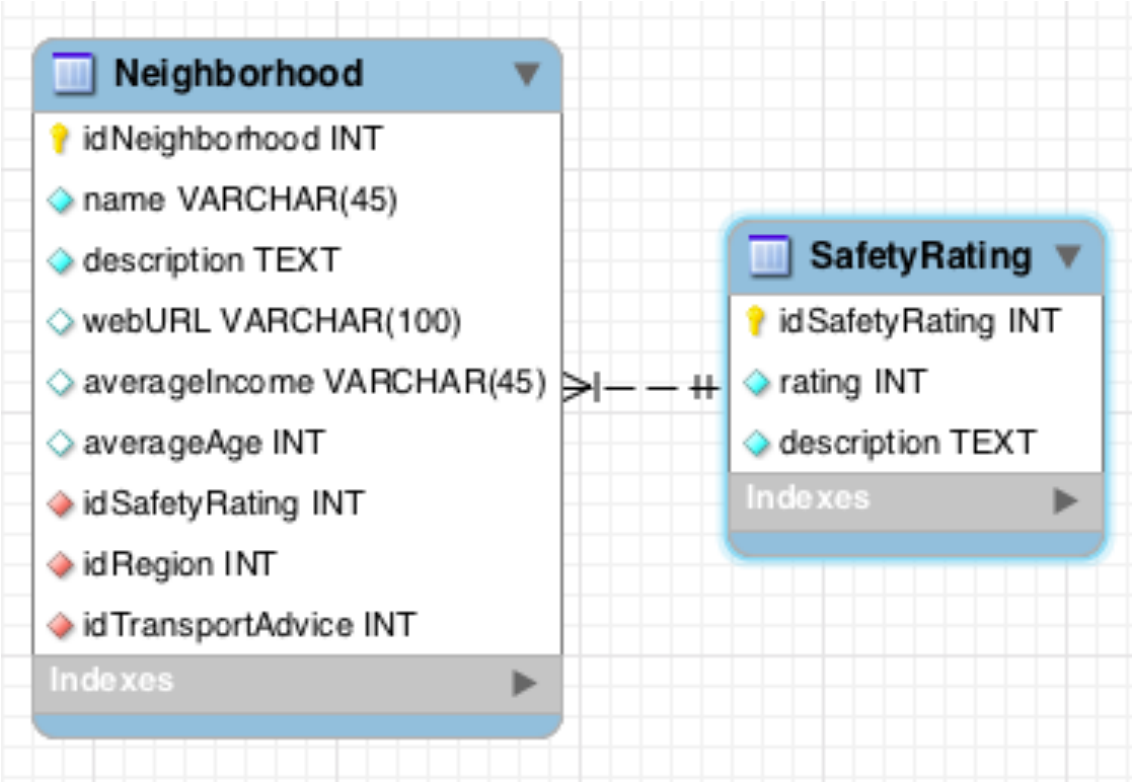
Neighborhood Name Index



Query:

```
SELECT n.name, n.description
FROM Neighborhood n
ORDER BY n.name
```

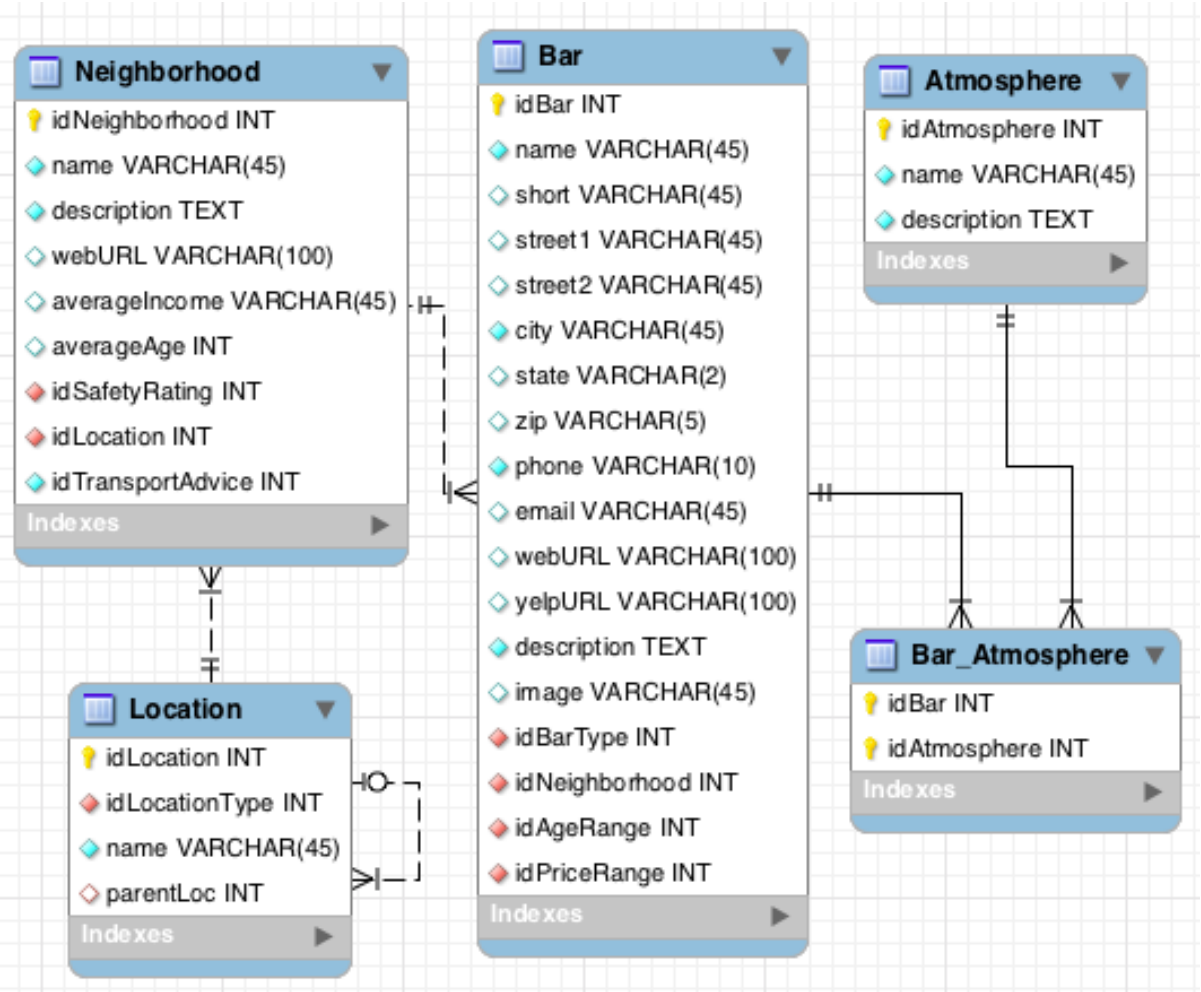
Neighborhood Safety Index



Query:

```
SELECT b.name, b.street1, b.
street2, b.city, b.state, b.zip, b.
description, sr.rating, sr.
description
FROM Bar b
JOIN SafetyRating sr
        ON b.idSafetyRating = sr.
        idSafetyRating
ORDER BY sr.rating DESC
```

Association: Similar location and/or atmosphere?



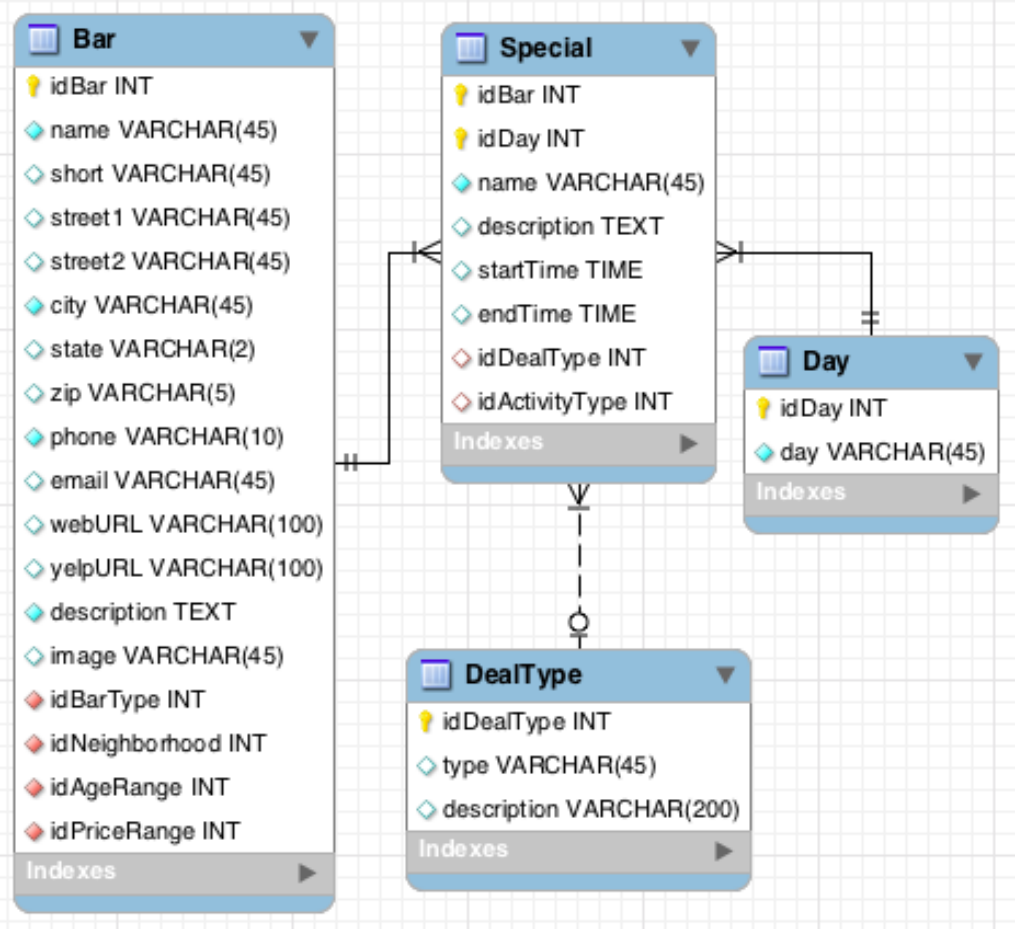
Query:

```
SELECT b.name, b.street1, b.
street2, b.city, b.state, b.zip, b.
description
FROM Bar b
JOIN Bar_Atmosphere ba
        ON b.idBar = ba.idBar
JOIN Atmosphere a
        ON ba.idAtmosphere = a.
        idAtmosphere
WHERE a.atmosphere = (input)
```

Query:

```
SELECT b.name, b.street1, b.
street2, b.description
FROM Bar b
JOIN Neighborhood n
        ON n.idNeighborhood = b.
        idNeighborhood
WHERE n.name = (input)
```

Sequence: Deals for you

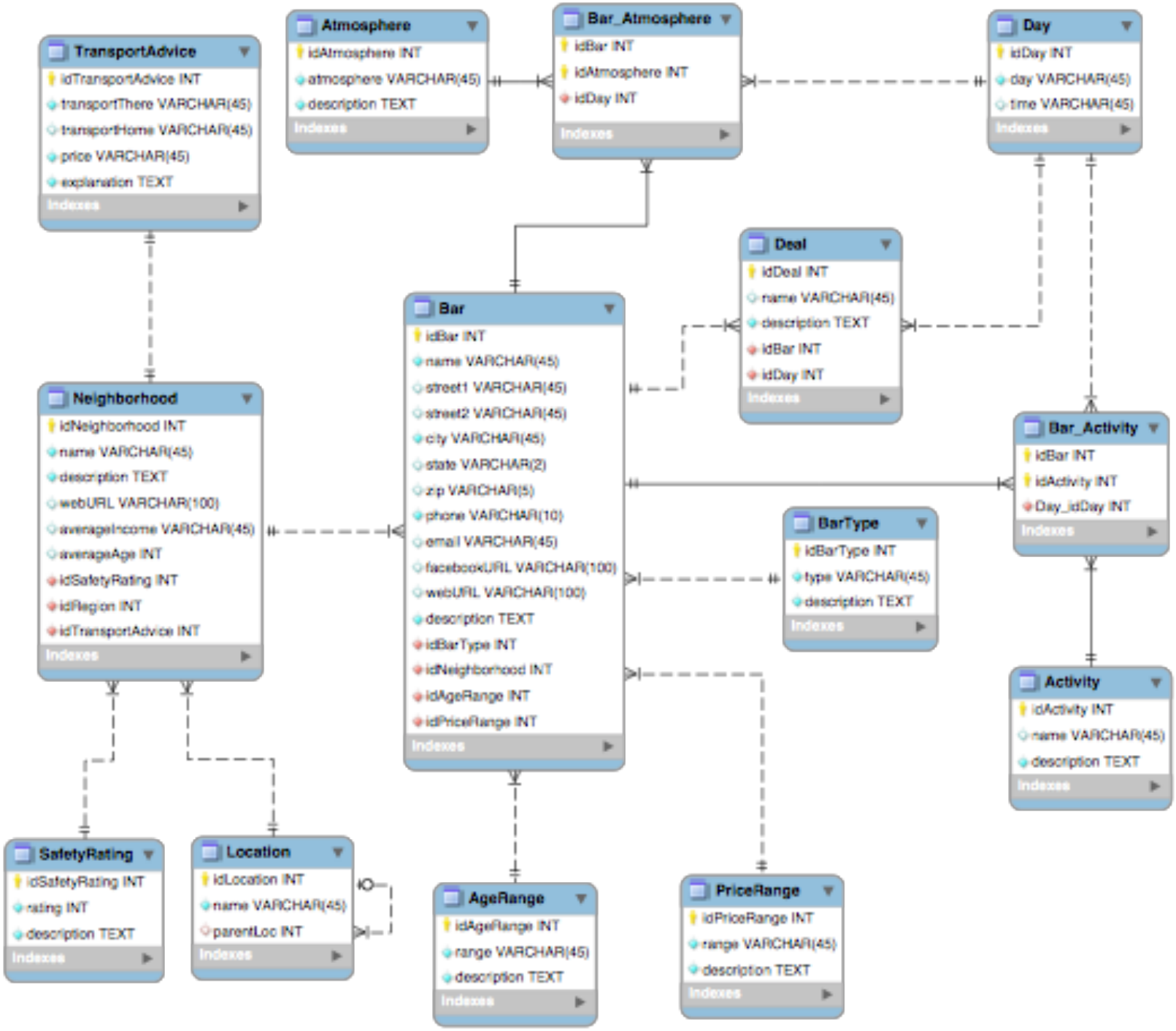


Query:

```
SELECT b.street1, b.street2, b.city, b.
state, b.zip, s.name, s.id,s.startTime,
d.day
FROM Speical s
JOIN Bar b
        ON s.idBar = b.idBar
JOIN Day d
        ON d.idDay = d.idDay
WHERE idDealType IS NOT NULL
```

Logic:

First, query to get all the deals offered at bars.
Second, order the results accordly.
Use the user's location to find bars closest to the user. Use user's device's day of week to find deals that are occurring on that day.


TransportAdvice
idTransportAdvice INT
transportThere VARCHAR(45)
transportHome VARCHAR(45)
price VARCHAR(45)
explanation TEXT
Indexes
Atmosphere
idAtmosphere INT
atmosphere VARCHAR(45)
description TEXT
Indexes
Bar_Atmosphere
idBar INT
idAtmosphere INT
idDay INT
Indexes
Day
idDay INT
day VARCHAR(45)
time VARCHAR(45)
Indexes
Deal
idDeal INT
name VARCHAR(45)
description TEXT
idBar INT
idDay INT
Indexes
Bar
idBar INT
name VARCHAR(45)
street1 VARCHAR(45)
street2 VARCHAR(45)
city VARCHAR(45)
state VARCHAR(2)
zip VARCHAR(5)
phone VARCHAR(10)
email VARCHAR(45)
facebookURL VARCHAR(100)
webURL VARCHAR(100)
description TEXT
idBarType INT
idNeighborhood INT
idAgeRange INT
idPriceRange INT
Indexes
Neighborhood
idNeighborhood INT
name VARCHAR(45)
description TEXT
webURL VARCHAR(100)
averageIncome VARCHAR(45)
averageAge INT
idSafetyRating INT
idRegion INT
idTransportAdvice INT
Indexes
Bar_Activity
idBar INT
idActivity INT
Day_idDay INT
Indexes
BarType
idBarType INT
type VARCHAR(45)
description TEXT
Indexes
Activity
idActivity INT
name VARCHAR(45)
description TEXT
Indexes
SafetyRating
idSafetyRating INT
rating INT
description TEXT
Indexes
Location
idLocation INT
name VARCHAR(45)
parentLoc INT
Indexes
AgeRange
idAgeRange INT
range VARCHAR(45)
description TEXT
Indexes
PriceRange
idPriceRange INT
range VARCHAR(45)
description TEXT
Indexes