

# Data & Application

Project – Database of Bar Booking Mobile App

# Mini World – Users and Purpose

This mini world serves the purpose of a Mobile Application which can be used to book nearby Bars. Customers and Bar owners are primary stakeholders of the database. This database will help customer find the nearby bars and bar owners in reaching their customers.

# Database Requirements

Entity 1 – Customer – Strong Entity

Attributes

- Customer ID – Primary Key
- Favourite Bar Id-Simple & Single Valued Attribute
- Favourite Drink name- Simple & Single Valued Attribute
- First name – Simple & Single Valued Attribute
- Last Name – Simple & Single Valued Attribute
- Customer Name(First Name, Last Name) – Composite & Single Valued Attribute
- Customer DOB - Simple & Single Valued Attribute
- Customer Age – Derived(From DOB) and Single Valued

# Database Requirements

Entity 2 – Customers Guardian – Weak Entity

Attributes

- Customer ID – Primary Key
- Guardian Name – Simple & Single Valued Attribute
- Guardian Contact Number - Simple & Multiple Valued Attribute

# Database Requirements

Entity 3 – Bar - Strong Entity

Attributes

- Bar ID – Primary Key
- Bar Name – Simple & Single Valued Attribute
- Bar Address - Simple & Single Valued Attribute
- Bar Manager ID - Simple & Single Valued Attribute
- Contact Number - Simple & Multiple Valued Attribute

# Database Requirements

Entity 4 – Drink – Strong Entity

Attributes

- Drink Name – Primary key
- Max Demand Bar id-Simple & Single Valued Attribute

# Database Requirements

Entity 5 – Beer - Subclass(Drinks)

Attributes

- Beer Name- Primary Key
- Max Demand Bar id-Simple & Single Valued Attribute
- Beer Brand – Simple & Single Valued Attribute
- Price - Simple & Single Valued Attribute

# Database Requirements

Entity 6 – Wine – Subclass(Drinks)

Attributes

- Wine Name- Primary Key
- Max Demand Bar id-Simple & Single Valued Attribute
- Wine Brand – Simple & Single Valued Attribute
- Price - Simple & Single Valued Attribute



# Database Requirements

Entity 7 – Bar Manager - Weak Entity

Attributes

- Manger ID – Primary Key
- Name – Simple & Single Valued Attribute
- Contact Number - Simple & Single Valued Attribute
- Bar ID - Simple & Single Valued Attribute
- Drinkname- Simple & Single Valued Attribute

# Database Requirements

Relationship type 1 - Drink Transaction - Quaternary Relationship

Member Entity :

- Drinks
- Customer
- Bar
- Bar Manager

Customer goes to a Bar which serves his favourite drink managed by Bar Manager who loves to sell a drink

# Database Requirements

Relationship type 2 – Loves\_to\_sell - Binary Relationship

Member Entity :

- Drinks
- Bar Manager

Bar Manager Loves\_to\_sell Drink

# Database Requirements

Relationship type 3 – Lovestogoto - Binary Relationship

Member Entity :

- Bar
- Customer

Customer Lovestogoto Bar

# Database Requirements

Relationship type 4 – Manages - Binary Relationship

Member Entity :

- Bar
- Bar Manager

Bar Manager Manages Bar

# Database Requirements

Relationship type 5 – Guards - Binary Relationship

Member Entity :

- Customers Guardian
- Customer

Customers Guardian Guards Customers

# Database Requirements

Specialization 1 – is\_a - Binary Relationship

Member Entity :

- Drink
- Wine

Wine is\_a Drink

# Database Requirements

Specialization 2— is\_a - Binary Relationship

Member Entity :

- Drink
- Beer

Beer is\_a Drink



# Database Requirements

## Functional Requirement 1

- Function Name – Add\_Customer
- Input – Attributes of the customer as defined in customer entity except Customer ID which will be generated Incrementally.
- Output – It will add the customer to the customer sheet.

# Database Requirements

## Functional Requirement 2

- Function Name –Delete\_Customer
- Input – Customer ID
- Output – It will remove the customer from the customer sheet and add it to old\_customer sheet(if it doesn't already exist then its created)

# Database Requirements

## Functional Requirement 3

- Function Name –Modify\_Customer
- Input – Customer ID, Attribute to update and Attribute Value
- Output – It will update the given customer attribute in the customer sheet.

# Database Requirements

## Functional Requirement 4

- Function Name – Bar\_Update
- Input – Bar ID, Attribute to update and Attribute Value
- Output – It will update the given bar attribute in the bar sheet.

# Database Requirements

## Functional Requirement 5

- Function Name – Bar\_Manager\_Update
- Input – Bar ID, Manager ID
- Output – It will update the given Manager ID attribute in the bar sheet.

# Database Requirements

## Functional Requirement 6

- Function Name – Report 1
- Output – Will generate a report having all the customer name

# Database Requirements

## Functional Requirement 7

- Function Name – Report 2
- Output – Will generate a report having all the bar name

# Database Requirements

## Functional Requirement 8

- Function Name – Old\_customer report
- Output – Will generate a report having the details of all former customers, using new entity type old\_customer