Contents

[1. T\_Vendor 2](#_Toc404465512)

[1.1 Vendor ID (Primary Key) 2](#_Toc404465513)

[1.2 Vendor Name 2](#_Toc404465514)

[1.3 Street1 Name 2](#_Toc404465515)

[1.4 Street2 Name 2](#_Toc404465516)

[1.5 City 3](#_Toc404465517)

[1.6 State 3](#_Toc404465518)

[1.7 Zip Code 3](#_Toc404465519)

[1.8 Vendor’s Phone 3](#_Toc404465520)

[1.9 Vendor’s Email Address 3](#_Toc404465521)

[1.10 Vendor’s Contact Person 3](#_Toc404465522)

[2. T\_Product 4](#_Toc404465523)

[2.1 Product ID (Primary Key) 4](#_Toc404465524)

[2.2 Name of Product 4](#_Toc404465525)

[2.3 Type ID of the Product (Foreign Key-Reference T\_Type) 4](#_Toc404465526)

[2.4 Price of the Product 4](#_Toc404465527)

[2.5 Vendor ID (Vendor Key- Reference T\_Vendor Table) 4](#_Toc404465528)

[2.6 Products in Stock 5](#_Toc404465529)

[3. T\_Type 5](#_Toc404465530)

[3.1 Type ID (Primary Key) 5](#_Toc404465531)

[3.2 Type Description 5](#_Toc404465532)

[3.3 Age Restriction 5](#_Toc404465533)

[4. T\_Purchase 5](#_Toc404465534)

[4.1 Purchase ID (Primary key) 5](#_Toc404465535)

[4.2 Product ID (Foreign Key- Reference T\_Product Table) 6](#_Toc404465536)

[4.3 Vendor ID (Vendor Key- Reference T\_Vendor Table) 6](#_Toc404465537)

[4.4 Purchased Quantity 6](#_Toc404465538)

[4.5 Unit Price 6](#_Toc404465539)

[4.6 Date of Purchase 6](#_Toc404465540)

[5. Accounting Sales 7](#_Toc404465541)

[5.1 Accounting ID (Primary key) 7](#_Toc404465542)

[5.2 Date of Sales 7](#_Toc404465543)

[5.3 Price of Sold Price 7](#_Toc404465544)

[5.4 Customer ID (Foreign key- Reference T\_customer table) 7](#_Toc404465545)

[5.5 Sold Quantity 7](#_Toc404465546)

[5.6 Product ID (Foreign Key- Reference T\_Product Table) 7](#_Toc404465547)

[6. Price Table 8](#_Toc404465548)

[6.1 Price ID (Primary key) 8](#_Toc404465549)

[6.2 Product ID (Foreign Key- Reference T\_Product Table) 8](#_Toc404465550)

[6.3 Running Price 8](#_Toc404465551)

[7. Customer Table 8](#_Toc404465552)

[7.1 Customer ID (Primary Key) 8](#_Toc404465553)

[7.2 Customer’s Date of Birth 8](#_Toc404465554)

[7.3 Customer’s Street1 Name 9](#_Toc404465555)

[7.4 Customer’s Street2 Name 9](#_Toc404465556)

[7.5 Customer’s City 9](#_Toc404465557)

[7.6 Customer’s State 9](#_Toc404465558)

[7.7 Zip Code 9](#_Toc404465559)

[7.8 Customer’s Email Address 9](#_Toc404465560)

[7.9 Customer’s First Name 10](#_Toc404465561)

[7.10 Customer’s Last Name 10](#_Toc404465562)

[7.11 Middle Initial 10](#_Toc404465563)

[7.12 Customer Name Suffix 10](#_Toc404465564)

[8. Sales Information 10](#_Toc404465565)

[8.1 Sales ID (Primary Key) 10](#_Toc404465566)

[8.2 Product ID (Foreign Key- Reference T\_Product Table) 11](#_Toc404465567)

[8.3 Sold Quantity 11](#_Toc404465568)

[9. Sales Percentage 11](#_Toc404465569)

[9.1 Sales Percentage ID (Primary Key) 11](#_Toc404465570)

[9.2 Product ID (Foreign Key- Reference T\_Product Table) 11](#_Toc404465571)

[9.3 Percentage Sold 11](#_Toc404465572)

[10. POS Sales 12](#_Toc404465573)

[10.1 POS ID (Primary Key) 12](#_Toc404465574)

[10.2 Date of Sales 12](#_Toc404465575)

[10.3 Price of Sold Price 12](#_Toc404465576)

[10.4 Customer ID (Foreign key- Reference T\_customer table) 12](#_Toc404465577)

[10.5 POS Paid/Unpaid 12](#_Toc404465578)

[10.6 Sold Quantity 13](#_Toc404465579)

[10.7 Product ID (Foreign Key- Reference T\_Product Table) 13](#_Toc404465580)

Note: The following format is utilized to illustrate the entities and descriptive information.

|  |
| --- |
| **Entity Name** |
|  |
| Field Designator Type Size |
|  |
| Required/Optional – Definition |

# T\_VENDOR

|  |
| --- |
| Vendor ID (Primary Key) |
|  |
| ven\_id INT (Auto-Generated) |
|  |
| Required – The ven\_id is a unique number that all the vendors should have which is assigned during the first time transaction between the vendor and the organization. |

|  |
| --- |
| Vendor Name |
|  |
| ven\_name VARCHAR 30 |
|  |
| Required – Name of the vendor. For example, Towson Brewery |

|  |
| --- |
| Street1 Name |
|  |
| ven\_street1 VARCHAR 30 |
|  |
| Required – The street name of the Vendor’s address. |

|  |
| --- |
| Street2 Name |
|  |
| ven\_street2 VARCHAR 30 |
|  |
| Optional – If the Vendor’s address requires a second line. |

|  |
| --- |
| City |
|  |
| ven\_city VARCHAR 30 |
|  |
| Required – The city of the Vendor’s address. |

|  |
| --- |
| State |
|  |
| ven\_state CHAR 2 |
|  |
| Required – The two character state code of the vendor’s address |

|  |
| --- |
| Zip Code |
|  |
| ven\_zip NUMERIC 5,0 |
|  |
| Required – The zip code of the vendor. |

|  |
| --- |
| Vendor’s Phone |
|  |
| ven\_phone VARCHAR 12 |
|  |
| Required – Phone number of the Vendor including dash delimiters. For example: “410-458-8774”. |

|  |
| --- |
| Vendor’s Email Address |
|  |
| ven\_email VARCHAR 50 |
|  |
| Required – Email Address of the Vendor |

|  |
| --- |
| Vendor’s Contact Person |
|  |
| ven\_contact VARCHAR 50 |
|  |
| Required – First name & last name of contact person at Vendor |

# T\_PRODUCT

|  |
| --- |
| Product ID (Primary Key) |
|  |
| pro\_id INT(Auto-Generated) |
|  |
| Required- The pro\_id is a unique number for products. |

|  |
| --- |
| Name of Product |
|  |
| pro\_name VARCHAR 30 |
|  |
| Required – Name given to the product |

|  |
| --- |
| Type ID of the Product (Foreign Key-References T\_TYPE Table) |
|  |
| ty\_id INT |
|  |
| Required- This is a type id from the T\_Type table. |

|  |
| --- |
| Price of the Product |
|  |
| pro\_base NUMERIC 5,2 |
|  |
| Required – This is the base price of the product which has to be >0 |

|  |
| --- |
| Vendor ID (Foreign Key- References T\_VENDOR Table) |
|  |
| ven\_id INT 10 |
|  |
| Required – The ven\_id is a unique number that all the vendors should have which is assigned during the first time transaction between the vendor and the organization. See T\_Vendor Table. |

|  |
| --- |
| Products in Stock |
|  |
| pro\_instock INT |
|  |
| Required – Total number of products in stock must be >=0 |

# T\_TYPE

|  |
| --- |
| Type ID (Primary Key) |
|  |
| type\_id INT |
|  |
| Required – This is a unique ID given to a product based on its type |

|  |
| --- |
| Type Description |
|  |
| ty\_description VARCHAR 50 |
|  |
| Required – Type description of the product such as 12/16 Oz Beer can, 8.4/20 Oz Energy Drink, etc. |

|  |
| --- |
| Age Restriction |
|  |
| ty\_restricted Int 1 |
|  |
| Required – Ty\_Restricted can be either “0” or “1” where “1” denotes as Alcohol drink requiring to be 21 to purchase whereas, “0” denotes as non-alcoholic drink. |

# T\_PURCHASE

|  |
| --- |
| Purchase ID (Primary key) |
|  |
| pur\_id INT (Auto-Generated) |
|  |
| Required – This is a unique ID given for each purchase from a vendor. |

|  |
| --- |
| Product ID (Foreign Key- References T\_PRODUCT Table) |
|  |
| pro\_id INT |
|  |
| Required- The pro\_id is a unique number for products. See T\_PRODUCT Table. |

|  |
| --- |
| Vendor ID (Foreign Key- References T\_VENDOR Table) |
|  |
| ven\_id INT |
|  |
| Required – The ven\_id is a unique number that all the vendors should have which is assigned during the first time transaction between the vendor and the organization. See T\_Vendor Table. |

|  |
| --- |
| Purchased Quantity |
|  |
| pur\_qty INT |
|  |
| Required – Total number of quantities of product purchased which has to be >0. |

|  |
| --- |
| Unit Price |
|  |
| Pur\_Unt\_Price Numeric 5,2 |
|  |
| Required – This is price paid per unit of product. |

|  |
| --- |
| Date of Purchase |
|  |
| Pur\_Date Datetime 8 |
|  |
| Required – This is date and time of the day when purchase occurred |

# T\_ACCT\_SALES

|  |
| --- |
| Accounting ID (Primary key) |
|  |
| acct\_ID INT(Auto-Generated) |
|  |
| Required – This is a unique ID for sales. The Accounting Sales table is permanent and is used to track historical data. |

|  |
| --- |
| Date of Sales |
|  |
| acct\_datetime DATETIME |
|  |
| Required – This is date and time of the day when sales occurred. |

|  |
| --- |
| Price of Sold Price |
|  |
| acct\_price NUMERIC 5,2 |
|  |
| Required – This is the price at which the product was sold. |

|  |
| --- |
| Customer ID (Foreign key- Reference T\_CUSTOMER Table) |
|  |
| cus\_ID INT |
|  |
| Required – This is a unique ID given for each customer. See T\_CUSTOMER table |

|  |
| --- |
| Sold Quantity |
|  |
| acct\_qty INT |
|  |
| Required – Total number of quantities of product sold which has to be >0. |

|  |
| --- |
| Product ID (Foreign Key- References T\_PRODUCT Table) |
|  |
| pro\_id INT |
|  |
| Required- The pro\_id is a unique number for products. See T\_PRODUCT Table |

# T\_PRICE

|  |
| --- |
| Price ID (Primary key) |
|  |
| pri\_id INT (Auto-Generated) |
|  |
| Required – This is a unique ID for the price table. |

|  |
| --- |
| Product ID (Foreign Key- References T\_PRODUCT Table) |
|  |
| pro\_id INT |
|  |
| Required- The pro\_id is a unique number for products. See T\_PRODUCT Table |

|  |
| --- |
| Current Price |
|  |
| pro\_price NUMERIC 5,2 |
|  |
| Required – This is the current price of the product. |

# T\_CUSTOMER

|  |
| --- |
| Customer ID (Primary Key) |
|  |
| cus\_id INT |
|  |
| Required – This is a unique ID given for each customer. |

|  |
| --- |
| Customer’s Date of Birth |
|  |
| cus\_dob DATETIME |
|  |
| Required- Date of Birth is needed to calculate customer age and determine eligibility to purchase products. |

|  |
| --- |
| Customer’s Address Street 1 |
|  |
| cus\_street1 VARCHAR 30 |
|  |
| Optional – Customer’s street address line 1. |

|  |
| --- |
| Customer’s Address Street2 |
|  |
| cus\_street2 VARCHAR 30 |
|  |
| Optional – Customer’s street address line 2. |

|  |
| --- |
| Customer’s Address City |
|  |
| cus\_city VARCHAR 30 |
|  |
| Optional – The city of the Customers’s address. |

|  |
| --- |
| Customer’s State |
|  |
| cus\_state CHAR 2 |
|  |
| Optional – The two character state code of the Customer’s address. |

|  |
| --- |
| Zip Code |
|  |
| cus\_zip NUMERIC 5,0 |
|  |
| Optional – The zip code of the Customer’s Address. |

|  |
| --- |
| Customer’s Email Address |
|  |
| cus\_email VARCHAR 50 |
|  |
| Optional – Email Address of the Customer |

|  |
| --- |
| Customer’s First Name |
|  |
| cus\_fname VARCHAR 25 |
|  |
| Optional – First name of the customer |

|  |
| --- |
| Customer’s Last Name |
|  |
| cus\_lname VARCHAR 30 |
|  |
| Optional – Last name of the customer |

|  |
| --- |
| Middle Initial |
|  |
| cus\_mi VARCHAR 1 |
|  |
| Optional – Middle initial of the customer |

|  |
| --- |
| Customer Name Suffix |
|  |
| cus\_suffix VARCHAR 5 |
|  |
| Optional – Customer Name Suffix such Jr., Sr. Ph.D., II, III, IV, V, etc. |

# T\_SALES\_INFO

|  |
| --- |
| Sales ID (Primary Key) |
|  |
| si\_id INT (Auto-generated) |
|  |
| Required – This is a unique ID for this helper table. |

|  |
| --- |
| Product ID (Foreign Key- References T\_PRODUCT Table) |
|  |
| pro\_id INT |
|  |
| Required- The pro\_id is a unique number for products. See T\_PRODUCT Table. |

.

|  |
| --- |
| Quantity |
|  |
| qty\_sold INT |
|  |
| Required – Total number of product sold. |

# T\_SALES\_PERC

|  |
| --- |
| Sales Percentage ID (Primary Key) |
|  |
| sp\_id INT (Auto-Generated) |
|  |
| Required – This is a unique ID for this helper table. |

|  |
| --- |
| Product ID (Foreign Key- Reference T\_PRODUCT Table) |
| pro\_id INT |
|  |
| Required- The pro\_id is a unique number for products. See T\_PRODUCT Table. |

|  |
| --- |
| Percentage Sold |
| pct\_of\_sales INT |
|  |
| Required- Percentage of sales for products sold. |

# T\_POS\_SALES

|  |
| --- |
| POS ID (Primary Key) |
|  |
| pos\_id INT (Auto-generated) |
|  |
| Required – This is a unique ID given for sales at the pos terminal. |

|  |
| --- |
| Date/Time of Sale |
|  |
| pos\_datetime DATETIME |
|  |
| Required – This is date and time of the sale at the pos terminal. |

|  |
| --- |
| Price |
|  |
| pro\_price NUMERIC 5,2 |
|  |
| Required – This is the price at which the product was sold. |

|  |
| --- |
| Customer ID (Foreign key- References T\_CUSTOMER Table) |
|  |
| cus\_id INT |
|  |
| Required – This is a unique ID given for each customer. See T\_CUSTOMER Table |

|  |
| --- |
| POS Paid |
|  |
| pos\_paid INT |
|  |
| Required – 0 for unpaid, 1 for paid |

|  |
| --- |
| Quantity |
|  |
| pos\_qty INT |
|  |
| Required – Number products sold which has to be >0. |

|  |
| --- |
| Product ID (Foreign Key- References T\_PRODUCT Table) |
|  |
| pro\_id INT |
|  |
| Required- The pro\_id is a unique number for products. See T\_PRODUCT Table |

# T\_PRICE\_DIFF

|  |
| --- |
| Price Differential ID |
|  |
| diff\_id INT |
|  |
| Required- The diff\_id is a unique number for this helper table |

|  |
| --- |
| Product ID (Foreign Key- References T\_PRODUCT Table) |
|  |
| pro\_id INT |
|  |
| Required- The pro\_id is a unique number for products. See T\_PRODUCT Table |

|  |
| --- |
| Percentage Difference |
|  |
| diff\_perc DECIMAL 5,1 |
|  |
| Required- The percentage difference between current price of a product and it’s base price. |

# T\_CUS\_AGE

|  |
| --- |
| Customer Age ID |
|  |
| cage\_id INT |
|  |
| Required- The cage\_id is a unique number this helper table. |

|  |
| --- |
| Customer ID (Foreign Key- References T\_Customer Table) |
|  |
| pro\_id INT |
|  |
| Required- The pro\_id is a unique number for products. See T\_PRODUCT Table |

|  |
| --- |
| Age |
|  |
| age INT |
|  |
| Required- Age is determined by a date diff from the customer date of birth. |