DBMS
Lab Assignment-V

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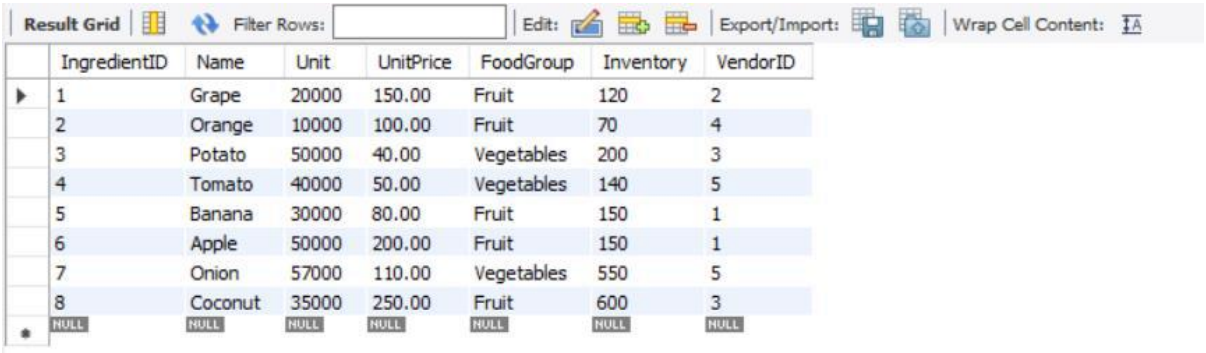
Aim: The Aim of this lab assignment is to implement and execute SQL Queries on MySQL Workbench for the given Restaurant Database in it.

Experiment: In this experiment, we are going to write single SQL Query to retrieve desired Data from the given restaurant database. We have to create the tables and populate them with valid data from the given ERD.

Ingredients:

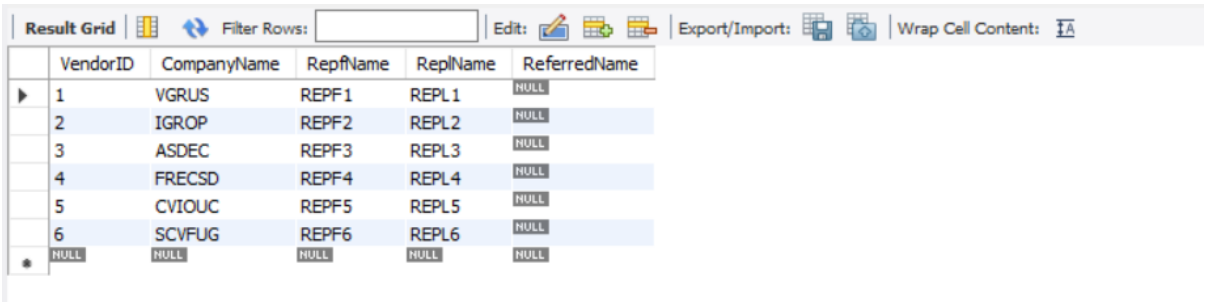


Result Grid | Filter Rows: | Edit: | Export/Import: | Wrap Cell Content:

IngredientID	Name	Unit	UnitPrice	FoodGroup	Inventory	VendorID
1	Grape	20000	150.00	Fruit	120	2
2	Orange	10000	100.00	Fruit	70	4
3	Potato	50000	40.00	Vegetables	200	3
4	Tomato	40000	50.00	Vegetables	140	5
5	Banana	30000	80.00	Fruit	150	1
6	Apple	50000	200.00	Fruit	150	1
7	Onion	57000	110.00	Vegetables	550	5
8	Coconut	35000	250.00	Fruit	600	3
NULL	NULL	NULL	NULL	NULL	NULL	NULL

In this table we are using IngredientID attribute as Primary key, Name attribute to store name, Unit attribute to store Total Number of Units, UnitPrice to store the price of each Unit. Inventory to store total number of stock present in Inventory and VendorID to store ID of Vendor.

Menu:



Result Grid | Filter Rows: | Edit: | Export/Import: | Wrap Cell Content:

VendorID	CompanyName	RepfName	ReplName	ReferredName
1	VGRUS	REPF1	REPL1	NULL
2	IGROP	REPF2	REPL2	NULL
3	ASDEC	REPF3	REPL3	NULL
4	FRECSD	REPF4	REPL4	NULL
5	CVIOUC	REPF5	REPL5	NULL
6	SCVFUG	REPF6	REPL6	NULL
NULL	NULL	NULL	NULL	NULL

In this Table we are using VendorID as Primary key, CompanyName to store Company's Name, RepfName, ReplName, ReferredName to store Respective Data.

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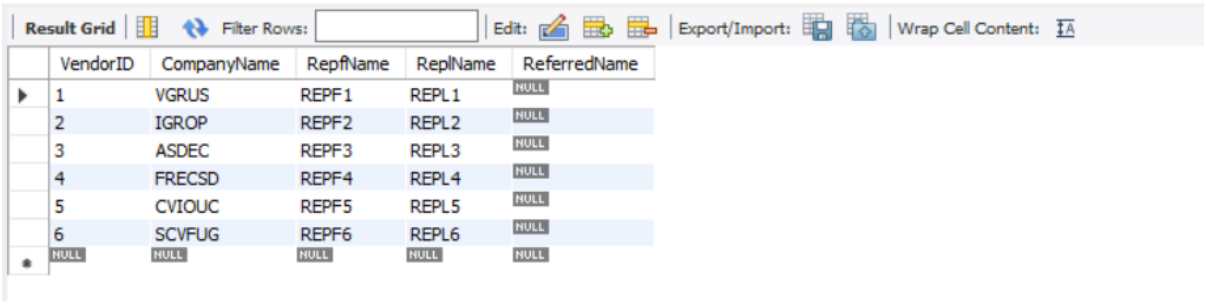
Vendors:



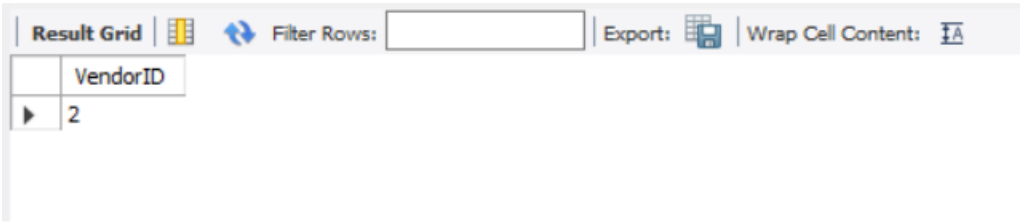
VendorID	CompanyName	RepfName	ReplName	ReferredName
1	VGRUS	REPF1	REPL1	NULL
2	IGROP	REPF2	REPL2	NULL
3	ASDEC	REPF3	REPL3	NULL
4	FRECSD	REPF4	REPL4	NULL
5	CVIOUC	REPF5	REPL5	NULL
6	SCVFUG	REPF6	REPL6	NULL
NULL	NULL	NULL	NULL	NULL

In this Table we are using VendorID as Primary key, CompanyName to store Company's Name, RepfName, ReplName, ReferredName to store Respective Data.

Results:

Q1. Find the id of Vendor who supplies Grape

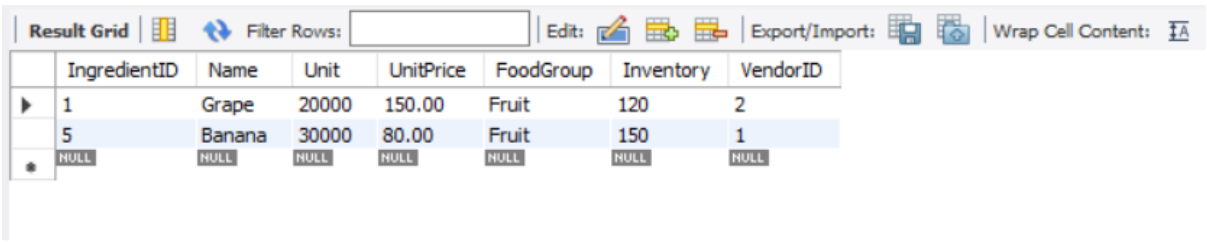
```
81
82 •  SELECT VendorID FROM INGREDIENTS WHERE Name = 'Grape';
83
```



VendorID
2

Q2. Find all of the ingredients from the fruit food group with an inventory greater than100

```
84
85 •  SELECT * FROM INGREDIENTS WHERE FoodGroup = 'Fruit' AND Inventory > 100;
86
```



IngredientID	Name	Unit	UnitPrice	FoodGroup	Inventory	VendorID
1	Grape	20000	150.00	Fruit	120	2
5	Banana	30000	80.00	Fruit	150	1
NULL	NULL	NULL	NULL	NULL	NULL	NULL

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Q3. Display all the food groups from ingredients, in which ‘grape’ is not a member.

```
87
88 • SELECT FoodGroup FROM INGREDIENTS WHERE NOT Name = 'Grape' ;
89
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

FoodGroup
Fruit
Vegetables
Vegetables
Fruit

Q4. Find the ingredients, unit price supplied by ‘VGRUS’ (vendor ID) order by unit price(asc)

```
91
92 • SELECT I.Name, I.UnitPrice FROM INGREDIENTS I WHERE I.VendorID = 1;
93
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

Name	UnitPrice
Banana	80.00
Apple	200.00

Q5. Find the date on which the last item was added.

```
100
101 • SELECT * FROM MENUITEMS ORDER BY DATEADDED DESC LIMIT 1;
102
```

Result Grid | Filter Rows: | Edit: | Export/Import: | Wrap Cell Content: | Fetch rows:

ItemID	Name	Price	DateAdded
5	Biriyani	120.00	2021-12-01
NULL	NULL	NULL	NULL

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Q7. Find the list of vendor representative first names that begin with ‘s’

```
104
105 •  SELECT * FROM VENDORS WHERE CompanyName LIKE 'S%';
106
```

Result Grid | Filter Rows: | Edit: | Export/Import: | Wrap Cell Content:

VendorID	CompanyName	RepfName	ReplName	ReferredName
6	SCVFUG	REPF6	REPL6	NULL
NULL	NULL	NULL	NULL	NULL

Q8. Find all vendor names containing an ‘_’.

```
107
108 •  SELECT * FROM VENDORS WHERE CompanyName LIKE '___';
109
```

Result Grid | Filter Rows: | Edit: | Export/Import: | Wrap Cell Content:

VendorID	CompanyName	RepfName	ReplName	ReferredName
NULL	NULL	NULL	NULL	NULL

Q9. Find the name of all of the food items other than salads.

```
109
110 •  SELECT * FROM MENUITEMS WHERE NOT Name = 'Salad';
111
```

Result Grid | Filter Rows: | Edit: | Export/Import: | Wrap Cell Content:

ItemID	Name	Price	DateAdded
2	Rice	30.00	2020-05-10
3	Dal	30.00	2020-05-10
4	IceCream	40.00	2021-10-21
5	Biriyani	120.00	2021-12-01
NULL	NULL	NULL	NULL

Q11. Find the details of all vendors not referred by anyone.

```
112
113 •  SELECT * FROM VENDORS WHERE ReferredName = NULL;
114
```

Result Grid | Filter Rows: | Edit: | Export/Import: | Wrap Cell Content:

VendorID	CompanyName	RepfName	ReplName	ReferredName
NULL	NULL	NULL	NULL	NULL

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Q12. Find the average and total price for all items.

```
115
116 •  SELECT AVG(Price), SUM(Price) FROM MENUITEMS;
117
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

AVG(Price)	SUM(Price)
48.000000	240.00

Q13. Find the total number of ingredient units in inventory.

```
118
119 •  SELECT SUM(Inventory) FROM INGREDIENTS;
120
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

SUM(Inventory)
830

Q17. Find the minimum and maximum unit price of all ingredients in each non-NULL food group. The results are only reported for food groups with either two or more items or a total inventory of more than 500 items.

```
123
124 •  SELECT MIN(UnitPrice), MAX(UnitPrice) FROM INGREDIENTS WHERE Inventory >= 500;
125
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

MIN(UnitPrice)	MAX(UnitPrice)
110.00	250.00

Q18. Find all items from most to least expensive.

```
126
127 •  SELECT * FROM MENUITEMS ORDER BY Price DESC;
128
```

Result Grid | Filter Rows: | Edit: | Export/Import: | Wrap Cell Content:

ItemID	Name	Price	DateAdded
5	Biriyani	120.00	2021-12-01
4	IceCream	40.00	2021-10-21
2	Rice	30.00	2020-05-10
3	Dal	30.00	2020-05-10
1	Salad	20.00	2020-05-10
NULL	NULL	NULL	NULL

Conclusion: In this Lab Assignment we have seen how to retrieve desired Data with conditions from SQL Database Tables.