DBMS-LAB Assignment - 5

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AIM: To create tables, applying primary key to each table, declaring foreign keys, relating tables, adding tuples and writing a single SQL query for each of the following based on database. And using aggregate functions

Experiment:

1. Find the ID of the vendor who supplies grape.
   Select vendorid from ingredients where _name='grape';

2. Find all of the ingredients from the fruit food group with an inventory greater than 100 select * from ingredients where foodgroup='fruit' and inventory > 100;

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

select foodgroup from ingredients where _name <>'grape';

4. Find the ingredients, unit price supplied by ‘VGRUS’(vendor ID) order by unit price(asc) select ingredientsid , unitprice from ingredients where vendorsid =
   'VGRUS' order by unitprice ASC;

5. Find the dateon which the last item was added. Select * from menuitem order by dateaddeddesc limit 1;

6. Find the number of vendors each vendor referred, and only report the vendors referring more than one.
   SELECT referredby, COUNT(*) from vendors group by referredby having COUNT(*) > 1;

7. Find the list of vendor representative first names that begin with ‘s’
   select * from vendors where repfname like 'S%';

8. Find all vendor names containing an ‘_’.
   SELECT companyname FROM vendors WHERE companynameregexp '_';

9. Find the name of all of the food items other than salads. select name from menuitems where not _name like '%salad';

10. Find the ingredient ID, name, and unit of items not sold in pieces or strips.
    selectingredientsid, _name, unit from ingredients where unit not in ('piece', 'strip');

11. Find the details of all vendors not referred by anyone.
    Select * from vendors where referredby is NULL;

12. Find the average and total price for all items select avg(price) as Average,sum(price) as Total from menuitems;

13. Find the total number of ingredient units in inventory select sum(inventory) as Total_Inventory from ingredients;

18. Find all items from most to least expensive.

    Select * from menuitems order by price desc;

Result

By implementing these queries in MySQL Workbench, we can get the data according to the given questions from restaurant database.

And here are some tables which have been executed

Meal-stable

d

	mealsid	_name	_description
▸	100300	fullmeals	made in india
*	NULL	NULL	NULL

Menuiteams _table

Result Grid | Filter Rows:

itemid	_name	_price	dateadded
110510	kachori	150.00	2020-01-21
110511	grape	130.02	2020-02-11
110512	burger	185.00	2020-05-21
110513	pizza	200.00	2021-01-27
110514	milkshake	150.00	2021-05-21
110515	mango	155.00	2021-07-15
NULL	NULL	NULL	NULL

menuitems 6

Vendors table

vendorsid	companyname	repfname	replname	referredby
233	vighyans	ram	rakesh	sanju
234	vighyans	sanjay	rakesh	ram
235	logistic	sam	vicky	sanjay
236	lauras	amol	lucky	ram
NULL	NULL	NULL	NULL	NULL

vendors 7

Ingredients table

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

ingredientsid	_name	unit	unitprice	foodgroup	inventory	vendorid
20000	kachori	3	100.00	junkfood	90	231
20001	grape	5	105.00	fruits	120	232
20002	mango	2	102.00	fruits	115	231
20004	burger	5	110.00	junkfood	120	233
20005	pizza	1	110.00	junkfood	95	234
NULL	NULL	NULL	NULL	NULL	NULL	NULL

ingredients 9

Conclusion:

SQL databases are the most prominent databases, in which data can be inserted in form of tables with the help of some commands. Through these commands one can create tables, and in each table, one can declare some entities. We can have entities named primary keys which are used to identify rows/tuples uniquely and foreign keys which are used to relate two different tables. These two keys can have constraints with or without constraint names. The entities can also be added, modified, or dropped even after tables are declared. With the ‘insert’ command we can add the tuples/rows with carefully chosen primary and foreign keys. The ‘select’ statement is used to select data from a database with or without conditions which gives us better option to render data . The data returned is stored in a result table, called the result-set.

Thank you

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