Database on
State Civil Supplies Corporation Ltd

GROUP **9**

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1. Introduction

- SCSCL is an organization that deals with the purchase and distribution of different agricultural commodities.

- The farmers sell a fixed quantity of each commodity to SCSCL at a pre-decided rate. Farmer can sell a particular commodity to SCSCL only once with one farmer id during a season.

- After purchasing the commodities, SCSCL stores them in their warehouses located nearby the purchase center and from there, it is sent to the shops from which it is sold to the public at a minimum rate.

2. Motivation

- The ecosystem of distribution of crops from the farmer to the public is quite complex.

- Lots of relational entities are involved in this process.

- Hence, a lot of information is required for this particular topic. Because of this, quite a number of queries can be generated using this information, which helps us to improve our understanding of this database creation.

3. Scope

- Records of personal details of **Farmers**.

- Details of **Employees** working in SCSCL.

- Details of **Manager.**

- Details of **Purchase** made by SCSCL.

- Details of **Purchase Center**.

- Details of **Warehouses**.

- Details of **Warehouse Stock**.

- Details of **Warehouse Transport**.

- Details of **Shop Transport**.

- Details of **Shops.**

4. ER Diagram & Relational Schema

➢ ER DIAGRAM

➢ Relational Schema Diagram

5. Queries

1. What is the Total Qty of commodity purchased by each district?

select district,commodity,sum(qty_in_quintal) as total_qty from farmers as f join purchase as p on f.farmer_id = p.farmer_id group by district, commodity order by total_qty asc;

	district character varying (15)	commodity character varying (10)	total_qty numeric
1	Junagadh	Ground Nut	140.00
2	Junagadh	Pigeon Pea	147.40
3	Surat	Pigeon Pea	154.70
4	Surat	Ground Nut	155.80
5	Rajkot	Ground Nut	188.10
6	Vadodara	Pigeon Pea	193.70
7	Vadodara	Ground Nut	253.40
8	Rajkot	Pigeon Pea	269.90

Data Output Explain Messages Notifications

2. **What is the total quantity of commodities transferred to the shops in 'Vanthali' taluka between 25th October 2020 and 25th October 2021?**

select s.shop_id,shop_name,sum(qty_in_quintal) from shop as s join shop_transport as t on s.shop_id=t.shop_id where taluka ='Vanthali' and tp_date between '2020-10-25' and '2021-10-25' group by s.shop_id, shop_name;

	Data Output	Explain	Messages	Notifications

	shop_id [PK] character varying (8)	shop_name character varying (15)	sum numeric
1	01060311	shiv	14.00
2	17100311	Ravi	13.40

3. **What is the average production of Ground Nut Per acre?**

select district,(sum(qty_in_quintal)/sum(land_area_in_acre)) as avg_production_per_acre from farmers as f join purchase as p on f.farmer_id=p.farmer_id where commodity='Ground Nut' group by (district);

Data Output	Explain	Messages	Notifications

	district character varying (15) 🔒	avg_production_per_acre numeric 🔒
1	Junagadh	1.161825726141788
2	Surat	0.8287234042553191489
3	Rajkot	1.840508806262309
4	Vadodara	4.4456140350877193

6. Summary

▶ This database will help us in finding out the details of farmers such as their bank details, land area, location of their land, crop production in each season etc.

▶ It helps SCSCL to manage the purchase details of different commodities.

▶ It also helps them to manage the data of transfer of commodities from purchase center to warehouse and from warehouse to different shops.

▶ Stocks table of database helps to manage the stocks of different commodities at warehouses.

▶ It also gives the information about employees and Manager.

▶ It helps SCSCL to find the different data like average production of commodities per acre, average income of farmer, district wise crop production, total amount paid by SCSCL to the farmers every year.

Thank You