



DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

UNIVERSITY OF ASIA PACIFIC

CSE 212- DATABASE SYSTEMS LAB

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Supply Chain:

A supply chain is a network between a company and its suppliers to produce and distribute a specific product to the final buyer. This network includes different activities, people, entities, information, and resources.

Supply chains are developed by companies so they can reduce their costs and remain competitive in the business landscape.

Supply Chain Management

Supply chain management is a process used by companies to ensure that their supply chain is efficient and cost-effective. A supply chain is the collection of steps that a company takes to transform raw materials into a final product.

Activities of a supply chain management

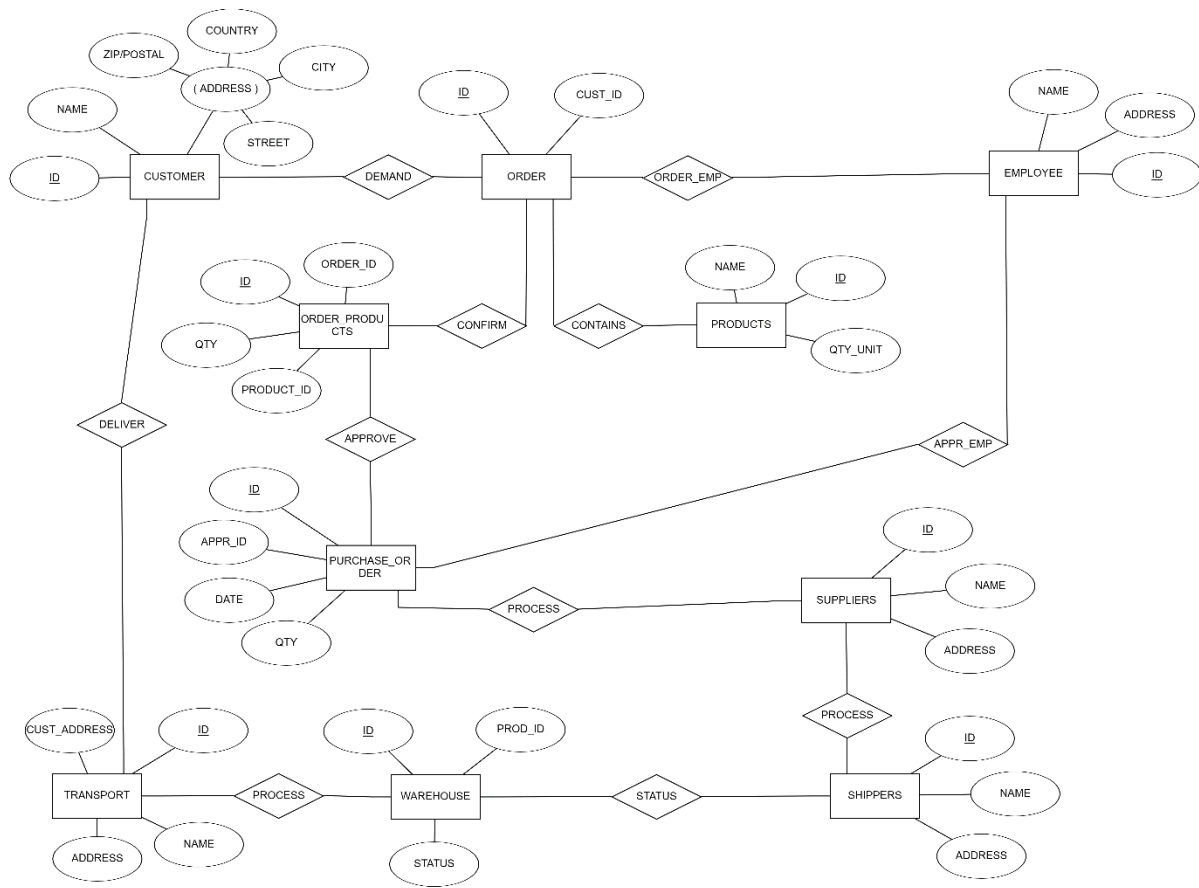
1. Customer Relationship Management.
2. Customer Service Management.
3. Demand Management.
4. Order Fulfilment.
5. Manufacturing Flow Management.
6. Procurement.
7. Product Development and Commercialisation.
8. Returns Management

Benefits of Supply Chain Management System:

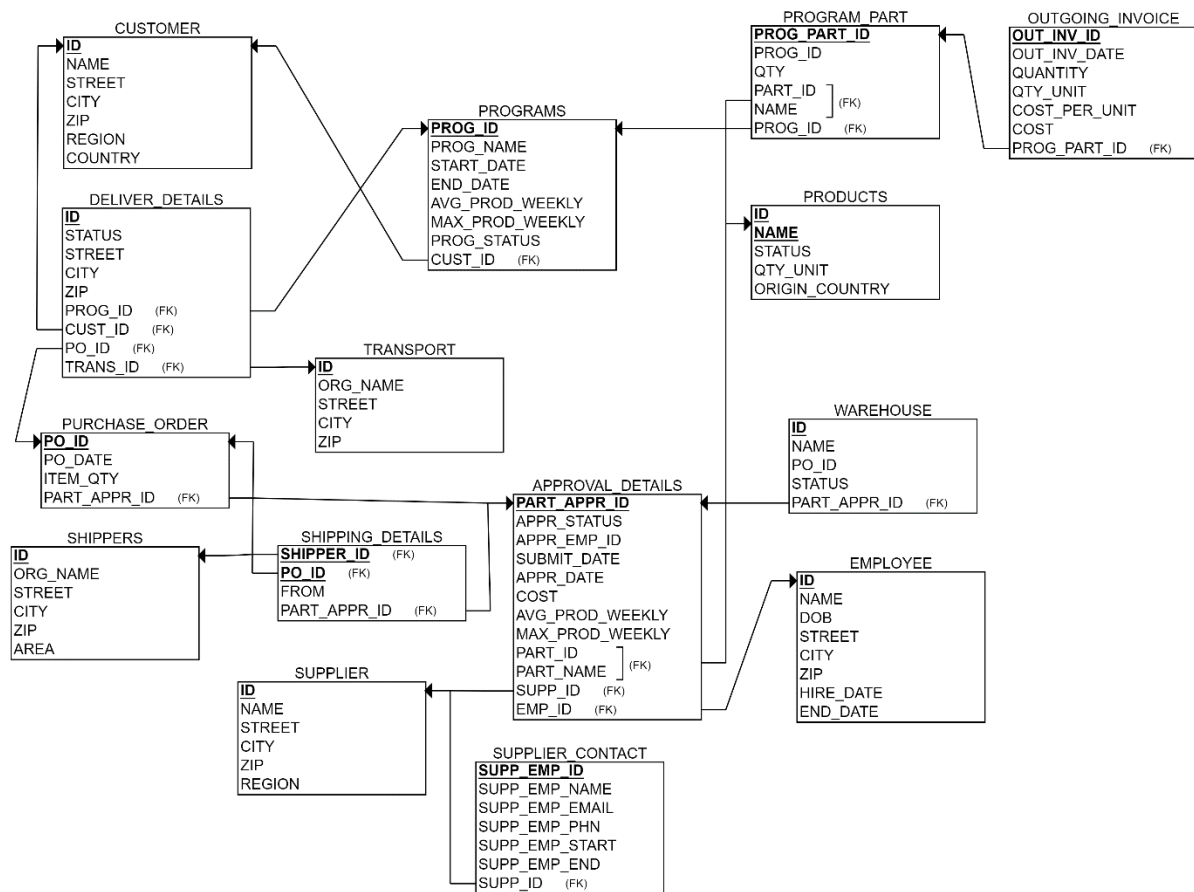
1. Higher Efficiency Rate.
2. Reduce Cost Effects.
3. Raise Output.
4. Raised Your Business Profit Level.
5. Boost Cooperation.
6. Lowers Delay in Processes.
7. Enhanced Supply Chain Network.

Supply chain is a very efficient, time saving & cost effective method to ensure huge production in a short time with less time. A supply chain have some procedure to complete the production like at first when a customer order product from any online shop then after fulfill all details of that customer order goes to the employee who is incharge of that management. The desired product order goes with it's unique order id by which it can be recognize. After that the employee check the status of that product, order list, quantity, availability etc. Then he confirm that product order which goes to order products with it's unique order id, quantity, product id and customer id for next step. Now it's time to approve the order in purchase order option with some unique identity feature. Next step is suppliers who manage the product for customer demand then it goes to shippers for shipment the product in the warehouse where all the ordered products stored for serialize tag & some unique identity tag. After that it goes to transport system to deliver all the product to the customer house where customer address, name, id every details included for hassle free marketing system. That's the main thim of supply chain system.

ER Diagram:



Schema Diagram:



Query:

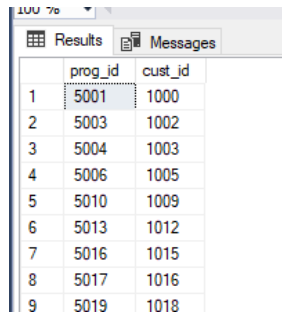
1. Select ID, Name of all Customer of Hong Kong:

```
SQL: select id,name from CUSTOMER
      where COUNTRY='hong kong'
```

	id	name
1	1022	Melinda
2	1028	Hasad

2. Select All Open Program ID with Customer ID:

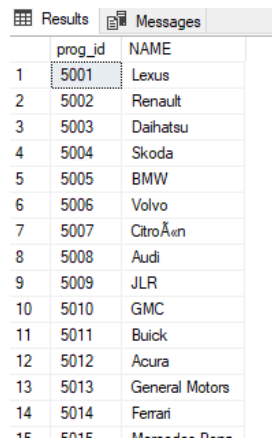
SQL: `select prog_id,cust_id from PROGRAMS
where prog_status = 'open'`



	prog_id	cust_id
1	5001	1000
2	5003	1002
3	5004	1003
4	5006	1005
5	5010	1009
6	5013	1012
7	5016	1015
8	5017	1016
9	5019	1018

3. Select all Program_ID with Product Name:

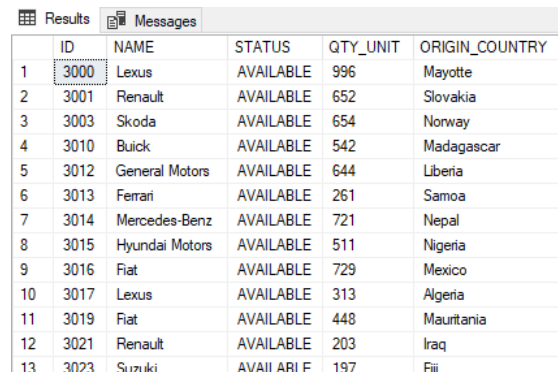
SQL: `select program_part.prog_id,PRODUCTS.NAME from PROGRAM_part, PRODUCTS
where PROGRAM_PART.PART_ID = PRODUCTS.ID`



	prog_id	NAME
1	5001	Lexus
2	5002	Renault
3	5003	Daihatsu
4	5004	Skoda
5	5005	BMW
6	5006	Volvo
7	5007	Citroën
8	5008	Audi
9	5009	JLR
10	5010	GMC
11	5011	Buick
12	5012	Acura
13	5013	General Motors
14	5014	Ferrari
15	5015	Mercedes-Benz

4. Display all available Products:

SQL: `select* from PRODUCTS
where STATUS= 'AVAILABLE'`



	ID	NAME	STATUS	QTY_UNIT	ORIGIN_COUNTRY
1	3000	Lexus	AVAILABLE	996	Mayotte
2	3001	Renault	AVAILABLE	652	Slovakia
3	3003	Skoda	AVAILABLE	654	Norway
4	3010	Buick	AVAILABLE	542	Madagascar
5	3012	General Motors	AVAILABLE	644	Liberia
6	3013	Ferrari	AVAILABLE	261	Samoa
7	3014	Mercedes-Benz	AVAILABLE	721	Nepal
8	3015	Hyundai Motors	AVAILABLE	511	Nigeria
9	3016	Fiat	AVAILABLE	729	Mexico
10	3017	Lexus	AVAILABLE	313	Algeria
11	3019	Fiat	AVAILABLE	448	Mauritania
12	3021	Renault	AVAILABLE	203	Iraq
13	3023	Suzuki	AVAILABLE	197	Fiji

5. List of Employee Who Hired After 2019:

SQL: `select* from EMPLOYEE
where HIRE_DATE like '%2019%'`

	ID	NAME	DOB	STREET	CITY	ZIP	HIRE_DATE	END_DATE
1	2001	Oliver	1969-12-31	598 Fringilla. St.	Beausejour	6000	2019-02-14	2019-09-14
2	2003	Tobias	1969-12-31	P.O. Box 273	5651 Ultrices Road	Le Ha	2019-02-18	NULL
3	2005	Lenore	1969-12-31	Ap #983-1947 Dictum Av.	Reus	03361	2019-04-13	2014-10-30
4	2006	Hannah	1969-12-31	5502 Sit St.	La Higuera	62035	2019-02-18	0010-02-14
5	2007	Kenyon	1969-12-31	P.O. Box 629	6235 Nisi Road	Yerba	2019-02-18	NULL
6	2008	Raja	1969-12-31	Ap #668-8860 Commodore Street	Bagh	19749	2019-02-18	2007-05-17
7	2012	Jennifer	1969-12-31	P.O. Box 620	1603 Pharetra Avenue	Shchy	2019-02-18	NULL
8	2017	Venus	1969-12-31	5328 A St.	Montes Claros	70834	2019-06-24	2006-11-13
9	2018	Kirby	1969-12-31	P.O. Box 983	4754 Nunc St.	Divin	2019-02-18	NULL
10	2021	Eleanor	1969-12-31	P.O. Box 841	9305 Tristique Ave	Kawaw	2019-02-18	NULL
11	2023	Edan	1969-12-31	8200 Lobortis Rd.	Rae Lakes	81729	2019-02-18	2006-03-27

6. List of all Employee of Supplier ID 4015:

SQL: `select*from SUPP_CONTACT
where [SUPPLIER ID]='4015'`

	ID	Name	Email	Phone	Designation	Start	End	SUPPLIER ID
1	8000	Leslie	id.ante@magna.co.uk	1-920-469-6989	Executive Officer	03.05.17	21.03.15	4015
2	8005	Stuart	neque.Morbi.quis@lobortisnisiinibh.org	647-4213	Business Executive	16.02.17	13.07.17	4015
3	8006	Mohammad	litora@felisullamcorperviverra.com	471-3557	Executive Officer	30.04.17	29.05.18	4015