

Database Management Systems - UE19CS301

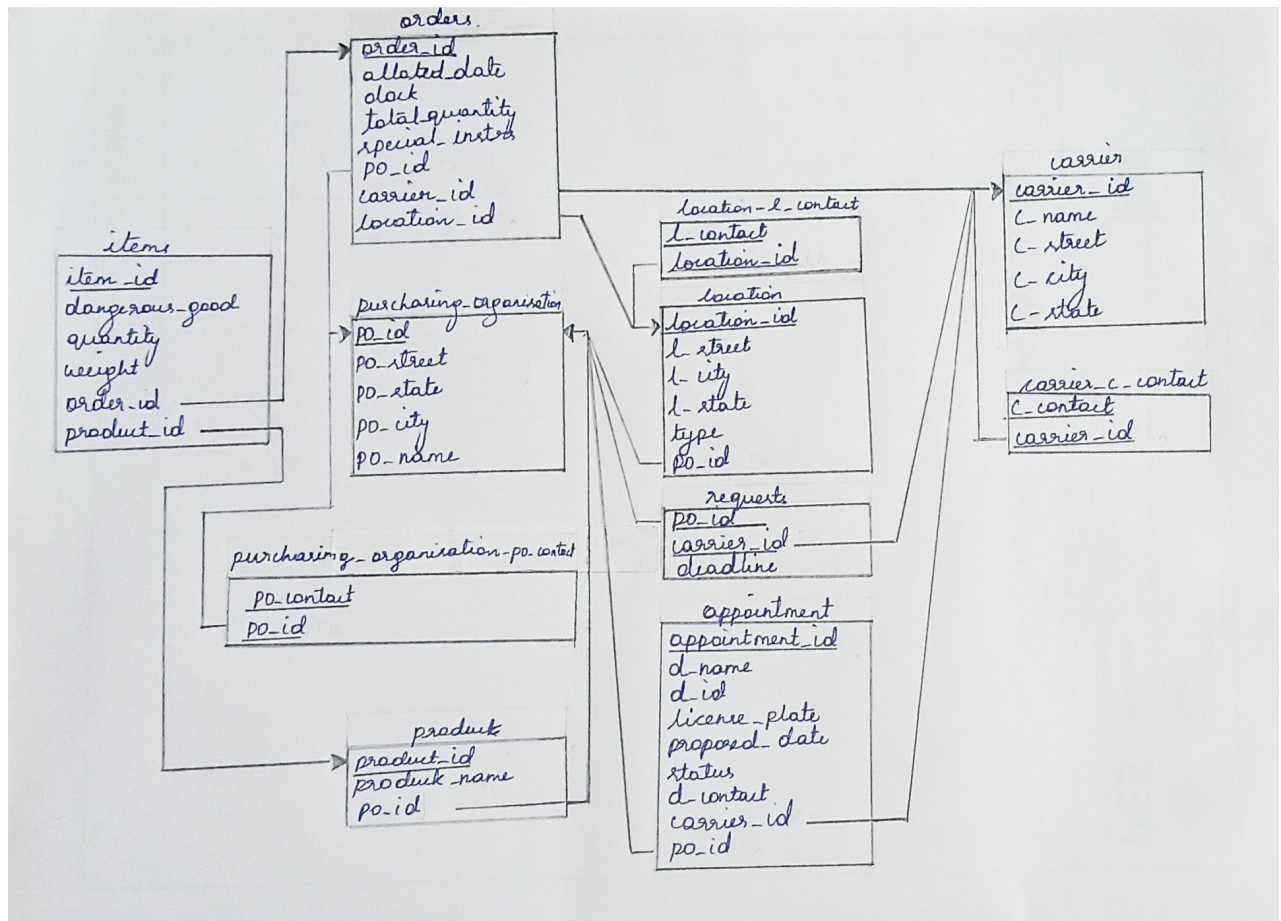
Assignment-2

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Section: H

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Relational schema



Why did we use PostgreSQL?

- The choice of DBMS is PostgreSQL.
- The database we are dealing with consists of only structured data.
- The attributes in the table mostly belong to integer, boolean, character, date datatype elements, but not multimedia data etc and hence RDBMS like mysql or postgresql is a good choice.
- Several constraints like domain constraints, key constraints, NULL constraints etc are easy to understand and implement. Hence with ease, we have applied constraints on NULL, key constraints, Referential Integrity, Entity Integrity and domain constraints on our data.
- PostgreSQL is open-source, free and far more secure than MySQL and has additional features.
- PostgreSQL like most SQL DBMS allows concurrent access by multi-users; for example many carriers can access the database at the same time.

CODE:

create.sql

```
DROP DATABASE dockwarehouse_mgt;

CREATE DATABASE dockwarehouse_mgt;

\c dockwarehouse_mgt

CREATE TABLE purchasing_organization
(
    po_street VARCHAR(20) ,
    po_state VARCHAR(20),
    po_city VARCHAR(20),
    po_id INT,
    po_name VARCHAR(20) NOT NULL,
    PRIMARY KEY (po_id)
);

CREATE TABLE carrier
(
    carrier_id INT,
    c_name VARCHAR(20) NOT NULL,
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```

    c_street VARCHAR(20),
    c_city VARCHAR(20),
    c_state VARCHAR(20),
    PRIMARY KEY (carrier_id)
);

CREATE TABLE location
(
    l_street VARCHAR(20),
    l_city VARCHAR(20),
    l_state VARCHAR(20),
    type VARCHAR(1) NOT NULL,
    location_id INT,
    po_id INT,
    PRIMARY KEY (location_id),
    FOREIGN KEY (po_id) REFERENCES purchasing_organization(po_id)
);

CREATE TABLE appointment
(
    appointment_id INT,
    d_name VARCHAR(20) NOT NULL,
    d_id INT NOT NULL,
    license_plate VARCHAR(10) NOT NULL,
    proposed_date DATE NOT NULL,
    status INT NOT NULL,
    d_contact VARCHAR(10),
    carrier_id INT NOT NULL,
    po_id INT NOT NULL,
    PRIMARY KEY (appointment_id),
    FOREIGN KEY (carrier_id) REFERENCES carrier(carrier_id),
    FOREIGN KEY (po_id) REFERENCES purchasing_organization(po_id)
);

CREATE TABLE product
(
    product_id INT,
    product_name VARCHAR(30) NOT NULL,
    po_id INT NOT NULL,
    PRIMARY KEY (product_id),
    FOREIGN KEY (po_id) REFERENCES purchasing_organization(po_id)
);

```

```

CREATE TABLE requests
(
    deadline DATE,
    po_id INT,
    carrier_id INT,
    PRIMARY KEY (po_id, carrier_id),
    FOREIGN KEY (po_id) REFERENCES purchasing_organization(po_id),
    FOREIGN KEY (carrier_id) REFERENCES carrier(carrier_id)
);

CREATE TABLE purchasing_organization_po_contact
(
    po_contact VARCHAR(10),
    po_id INT,
    PRIMARY KEY (po_contact, po_id),
    FOREIGN KEY (po_id) REFERENCES purchasing_organization(po_id)
);

CREATE TABLE carrier_c_contact
(
    c_contact VARCHAR(10),
    carrier_id INT,
    PRIMARY KEY (c_contact, carrier_id),
    FOREIGN KEY (carrier_id) REFERENCES carrier(carrier_id)
);

CREATE TABLE location_l_contact
(
    l_contact VARCHAR(10),
    location_id INT,
    PRIMARY KEY (l_contact, location_id),
    FOREIGN KEY (location_id) REFERENCES location(location_id)
);

CREATE TABLE orders
(
    order_id INT,
    allotted_date DATE NOT NULL,
    dock INT NOT NULL,
    total_quantity INT NOT NULL,
    special_instrs VARCHAR(100),
    po_id INT NOT NULL,
    carrier_id INT NOT NULL,

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```

location_id INT NOT NULL,
PRIMARY KEY (order_id),
FOREIGN KEY (po_id) REFERENCES purchasing_organization(po_id),
FOREIGN KEY (carrier_id) REFERENCES carrier(carrier_id),
FOREIGN KEY (location_id) REFERENCES location(location_id)
);

CREATE TABLE items
(
item_id INT,
dangerous_good INT,
quantity INT NOT NULL,
weight FLOAT NOT NULL,
order_id INT,
product_id INT NOT NULL,
PRIMARY KEY (item_id),
FOREIGN KEY (order_id) REFERENCES orders(order_id),
FOREIGN KEY (product_id) REFERENCES product(product_id)
);

```

insert.sql

```

\c dockwarehouse_mgt

insert into purchasing_organization values('Bluebonnet
Cane','Mumbai','Pune',1,'Nestle'),('Kirby
Road','Hyderabad','Hyderabad',2,'Intel'),('Elgin Road','Delhi','New
Delhi',3,'Tata Motors'),('Lark
Lane','Maharastra','Pune',4,'Haldirams'),('Fontane Lane','Tamil
Nadu','Chennai',5,'Pepsi Co.'),('Lavelle
Road','Karnataka','Bangalore',6,'Unilever'),('Avenue
street','Karnataka','Bangalore',7,'Kellogs'),('MG
Road','Karnataka','Bangalore',8,'Hersheys'),('SP
Road','Karnataka','Bangalore',9,'Red Bull');

insert into purchasing_organization_po_contact
values('9008933991',1),('6147613491',1),('9113253710',2),('9214263811',
3),('9315273913',3),('9416284020',3),('9517294121',4),('9618304212',5),
('9719314310',6),('9920324410',7),('7921334599',7),('6102344621',8),('9
112335472',9),('9122437891',9);

```

```

insert into carrier values(22,'FedEx','GM
Road','Bangalore','Karnataka'),(33,'XPO','Tilak
Road','Bangalore','Karnataka'),(44,'YRC','Fort
Road','Kozhikode','Kerala'),(55,'R+L','Baga
Road','Cuncoim','Goa'),(99,'Holland','Manjappa
Road','Bangalore','Karnataka'),(25,'Read Away','Sanki
Road','Bangalore','Karnataka'),(66,'Aveerit Express','St.Marks
Road','Bangalore','Karnataka'),(68,'Forward Air','DVG
Road','Bangalore','Karnataka'),(77,'Oak Harbour','Race Course
Road','Bangalore','Karnataka'),(26,'UPS Freight','LK
Road','Bangalore','Karnataka');

insert into requests
values('2020-10-2',1,22),('2020-11-6',2,33),('2020-12-4',9,44),('2021-1
0-7',8,55),(NULL,4,99),('2020-10-5',5,25),('2020-10-10',2,26),(NULL,3,6
6);

insert into location
values('Malleshwaram','Bangalore','Karnataka','s',111,NULL),('EC','Bang
alore','Karnataka','s',121,NULL),('Kormangala','Bangalore','Karnataka',
'p',122,1),('Whitefeild','Bangalore','Karnataka','p',123,2),('Bayappana
lli','Bangalore','Karnataka','p',124,3),('Afzad
khulm','Warangal','Telangana','s',125,NULL),('Sultan
Bazar','Warangal','Telangana','s',126,NULL),('Kaveri
Street','Chennai','Tamil Nadu','s',127,NULL),('MKB
Road','Pune','Maharashtra','s',128,NULL),('JFK
Road','Pune','Maharashtra','p',129,4),('SQG
Road','Pune','Maharashtra','p',130,5),('SQL Road','Coimbatore','Tamil
Nadu','p',131,6),('Avenue
Street','Bangalore','Karnataka','p',132,7),('MG
Road','Bangalore','Karnataka','p',133,8),('SP
Road','Bangalore','Karnataka','p',134,9),('Levelle
Road','Bangalore','Karnataka','p',135,2);

insert into location_l_contact
values(9993398009,111),(9943167416,121),(9173523119,123),(9393725139,12
4),(9204826149,125),(9234567891,126),(9567981011,127),(9510333213,128),
(9610121114,129),(8711131415,130),(7811141710,131),(9912151821,132),(81
13161922,133),(999999998,122),(8888888889,134),(7894561234,135);

insert into carrier_c_contact
values(9112345678,22),(8278654321,33),(9312137891,44),(9434148921,55),(

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```

8556157819,99),(8678167911,25),(7791177777,26),(9801189991,66),(9911192
832,68),(9101220910,77),(911314159,26),(8121314156,77);

insert into product
values(451,'Chocolates',1),(452,'Noodles',1),(455,'Laptops',2),(456,'Te
levision',2),(457,'Cars',3),(458,'Snacks',4),(459,'Cold
Drinks',5),(450,'Lotions',6),(453,'Serials',7),(461,'Cholcolates',8),(4
62,'Cold Drinks',9);

insert into orders
values(801,'2020-10-01',1,600,NULL,1,22,111),(802,'2020-10-01',2,800,NU
LL,1,33,121),(803,'2020-10-02',5,1100,NULL,2,44,125),(804,'2020-10-02',
1,225,'Glass packing,
Careful!',2,55,125),(805,'2020-10-03',1,350,NULL,3,99,127),(806,'2020-1
0-04',1,400,NULL,4,22,128),(807,'2020-10-05',1,500,NULL,5,33,111),(808,
'2020-10-06',1,600,NULL,6,44,121);

insert into items
values(211,0,500,60.12,801,451),(212,0,600,21.32,802,451),(213,1,1000,3
2.12,803,452),(214,1,200,45.55,804,452),(215,0,300,100,805,452),(216,1,
400,120.56,806,452),(217,0,500,62.21,807,455),(218,1,600,63.03,808,455)
,(219,1,100,51.56,801,456),(210,1,2000,53.89,802,457),(209,0,100,56.56,
NULL,458),(208,1,25,59.78,NULL,458),(207,1,50,32.91,NULL,461);

insert into appointment
values(991,'Rajesh',91,'ABC123','2020-10-01',1,9123456781,22,1),(992,'M
ahesh',92,'XYZ452','2020-10-01',1,9123567891,33,1),(993,'Suresh',93,'AB
C789','2020-10-02',1,9123171492,44,2),(994,'Girish',94,'ABC423','2020-1
0-02',1,9123281513,55,2),(995,'Ramesh',95,'XYZ956','2020-10-03',1,91233
91604,99,3),(996,'Zack',96,'LMN111','2020-10-04',1,9123512715,22,4),(99
8,'Rahul',97,'PQR234','2020-10-05',1,9123602816,33,5),(999,'Abdul',99,'
STU567','2020-10-06',1,6123457891,44,6),(989,'Priyam',100,'LMN121','202
0-11-05',0,9234555555,22,1),(980,'Kedar',101,'ABC999','2020-11-06',-1,9
225678910,33,1);

```

Team contributions:

1. Sumukh Bhat

- Wrote create table commands for 4 tables
- Tables were
 - Orders
 - Product
 - Location
 - carrier_c_contact
- Wrote insert commands for 4 tables
- Worked for 5 hours

2. Shreyas VBKS

- Wrote create table commands for 3 tables
- Tables were
 - Items
 - Purchasing organization
 - purchasing_organization_po_contact
- Wrote insert commands for 4 tables
- Worked for 5 hours

3. Sowmya M

- Wrote create table commands for 4 tables
- Tables were
 - Appointment
 - Carrier
 - location_l_contact
 - requests
- Wrote insert commands for 3 tables
- Worked for 4 hours