Fanindra Saini
211b116
B4

DATABASE SYSTEMS ASSIGNMENT

Database-

1. Orders-

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+---------+------------+----------------+------------+-----------+------------+-----------------+
| ord_num | ord_amount | advance_amount | ord_date   | cust_code | agent_code | ord_description |
+---------+------------+----------------+------------+-----------+------------+-----------------+
| 200100  | 1000       | 600            | 08/01/2008 | C00013    | A003       | SOD             |
| 200101  | 3000       | 1000           | 07/15/2008 | C00001    | A008       | SOD             |
| 200102  | 2000       | 300            | 05/25/2008 | C00012    | A012       | SOD             |
| 200103  | 1500       | 700            | 05/15/2008 | C00021    | A005       | SOD             |
| 200104  | 1500       | 500            | 03/13/2008 | C00006    | A004       | SOD             |
| 200105  | 2500       | 500            | 07/18/2008 | C00025    | A011       | SOD             |
| 200106  | 2500       | 700            | 04/20/2008 | C00005    | A002       | SOD             |
| 200107  | 4500       | 900            | 08/30/2008 | C00007    | A010       | SOD             |
| 200108  | 4000       | 600            | 02/15/2008 | C00008    | A004       | SOD             |
| 200109  | 3500       | 800            | 07/30/2008 | C00011    | A010       | SOD             |
| 200110  | 3000       | 500            | 04/15/2008 | C00019    | A010       | SOD             |
| 200111  | 1000       | 300            | 07/10/2008 | C00020    | A008       | SOD             |
| 200112  | 2000       | 400            | 05/30/2008 | C00016    | A007       | SOD             |
| 200113  | 4000       | 600            | 06/10/2008 | C00022    | A002       | SOD             |
| 200114  | 3500       | 2000           | 08/15/2008 | C00002    | A008       | SOD             |
| 200116  | 500        | 100            | 07/13/2008 | C00010    | A009       | SOD             |
| 200117  | 800        | 200            | 10/20/2008 | C00014    | A001       | SOD             |
| 200118  | 500        | 100            | 07/20/2008 | C00023    | A006       | SOD             |
| 200119  | 4000       | 700            | 09/16/2008 | C00007    | A010       | SOD             |
| 200120  | 500        | 100            | 07/20/2008 | C00009    | A002       | SOD             |
| 200121  | 1500       | 600            | 09/23/2008 | C00008    | A004       | SOD             |
| 200122  | 2500       | 400            | 09/16/2008 | C00003    | A004       | SOD             |
| 200123  | 500        | 100            | 09/16/2008 | C00022    | A002       | SOD             |
| 200124  | 500        | 100            | 06/20/2008 | C00017    | A007       | SOD             |
| 200125  | 2000       | 600            | 10/10/2008 | C00018    | A005       | SOD             |
| 200126  | 500        | 100            | 06/24/2008 | C00022    | A002       | SOD             |
| 200127  | 2500       | 400            | 07/20/2008 | C00015    | A003       | SOD             |
| 200128  | 3500       | 1500           | 07/20/2008 | C00009    | A002       | SOD             |
| 200129  | 2500       | 500            | 07/20/2008 | C00024    | A006       | SOD             |
| 200130  | 2500       | 400            | 07/30/2008 | C00025    | A011       | SOD             |
| 200131  | 900        | 150            | 08/26/2008 | C00012    | A012       | SOD             |
| 200133  | 1200       | 400            | 06/29/2008 | C00009    | A002       | SOD             |
| 200134  | 4200       | 1800           | 09/25/2008 | C00004    | A005       | SOD             |
| 200135  | 2000       | 800            | 09/16/2008 | C00007    | A010       | SOD             |
+---------+------------+----------------+------------+-----------+------------+-----------------+
34 rows in set (0.00 sec)
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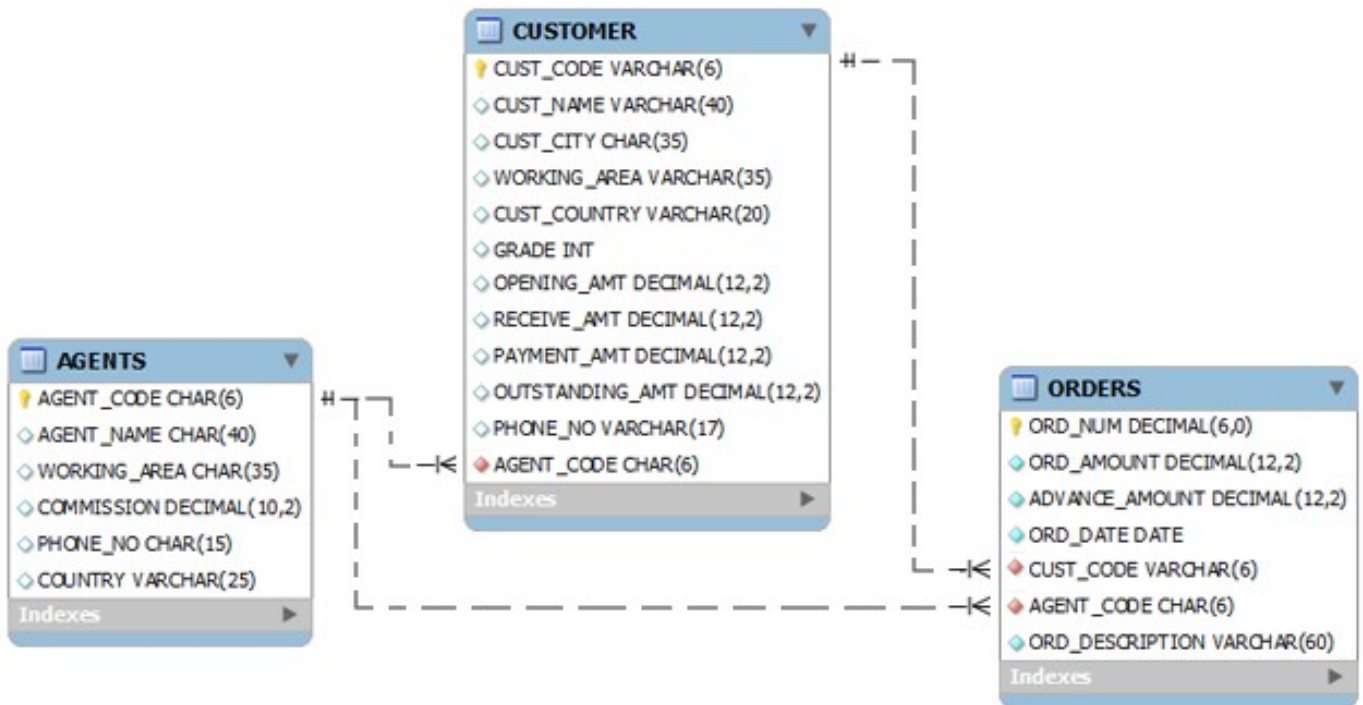
2. Customers-

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+-----------+-----------+-----------+--------------+-------------+-------+-------------+-------------+-------------+-----------------+-------------+------------+
| cust_code | cust_name | cust_city | working_area | cust_country | grade | opening_amt | receive_amt | payment_amt | outstanding_amt | phone_no    | agent_code |
+-----------+-----------+-----------+--------------+-------------+-------+-------------+-------------+-------------+-----------------+-------------+------------+
| C00001    | Micheal   | New York  | New York     | USA         | 2     | 3000        | 5000        | 2000        | 6000            | CCCCCCC     | A008       |
| C00002    | Bolt      | New York  | New York     | USA         | 3     | 5000        | 7000        | 9000        | 3000            | DDNRDRH     | A008       |
| C00003    | Martin    | Torento   | Torento      | Canada      | 2     | 8000        | 7000        | 7000        | 8000            | MJYURFD     | A004       |
| C00004    | Winston   | Brisban   | Brisban      | Australia   | 1     | 5000        | 8000        | 7000        | 6000            | AAAAAAA     | A005       |
| C00005    | Sasikant  | Mumbai    | Mumbai       | India       | 1     | 7000        | 11000       | 7000        | 11000           | 147-25896312| A002       |
| C00006    | Shilton   | Torento   | Torento      | Canada      | 1     | 10000       | 7000        | 6000        | 11000           | DDDDDDD     | A004       |
| C00007    | Ramanathan| Chennai   | Chennai      | India       | 1     | 7000        | 11000       | 9000        | 9000            | GHRDWSD     | A010       |
| C00008    | Karolina  | Torento   | Torento      | Canada      | 1     | 7000        | 7000        | 9000        | 5000            | HJKORED     | A004       |
| C00009    | Ramesh    | Mumbai    | Mumbai       | India       | 3     | 8000        | 7000        | 3000        | 12000           | Phone No    | A002       |
| C00010    | Charles   | Hampshair | Hampshair    | UK          | 3     | 6000        | 4000        | 5000        | 5000            | MMMMMMM     | A009       |
| C00011    | Sundariya | Chennai   | Chennai      | India       | 3     | 7000        | 11000       | 7000        | 11000           | PPHGRTS     | A010       |
| C00012    | Steven    | San Jose  | San Jose     | USA         | 1     | 5000        | 7000        | 9000        | 3000            | KRFYGJK     | A012       |
| C00013    | Holmes    | London    | London       | UK          | 2     | 6000        | 5000        | 7000        | 4000            | BBBBBBB     | A003       |
| C00014    | Rangarappa| Bangalore | Bangalore    | India       | 2     | 8000        | 11000       | 7000        | 12000           | AAAATGF     | A001       |
| C00015    | Stuart    | London    | London       | UK          | 1     | 6000        | 8000        | 3000        | 11000           | GFSGERS     | A003       |
| C00016    | Venkatpati| Bangalore | Bangalore    | India       | 2     | 8000        | 11000       | 7000        | 12000           | JRTVFDD     | A007       |
| C00017    | Srinivas  | Bangalore | Bangalore    | India       | 2     | 8000        | 4000        | 3000        | 9000            | AAAAAAB     | A007       |
| C00018    | Fleming   | Brisban   | Brisban      | Australia   | 2     | 7000        | 7000        | 9000        | 5000            | NHBGVFC     | A005       |
| C00019    | Yearannaidu| Chennai  | Chennai      | India       | 1     | 8000        | 7000        | 7000        | 8000            | ZZZZBFV     | A010       |
| C00020    | Albert    | New York  | New York     | USA         | 3     | 5000        | 7000        | 6000        | 6000            | BBBBSBB     | A008       |
| C00021    | Jacks     | Brisban   | Brisban      | Australia   | 1     | 7000        | 7000        | 7000        | 7000            | WERTGDF     | A005       |
| C00022    | Avinash   | Mumbai    | Mumbai       | India       | 2     | 7000        | 11000       | 9000        | 9000            | 113-12345678| A002       |
| C00023    | Karl      | London    | London       | UK          | 0     | 4000        | 6000        | 7000        | 3000            | AAAABAA     | A006       |
| C00024    | Cook      | London    | London       | UK          | 2     | 4000        | 9000        | 7000        | 6000            | FSDDSDF     | A006       |
| C00025    | Ravindran | Bangalore | Bangalore    | India       | 2     | 5000        | 7000        | 4000        | 8000            | AVAVAVA     | A011       |
+-----------+-----------+-----------+--------------+-------------+-------+-------------+-------------+-------------+-----------------+-------------+------------+
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3.Agents-

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+------------+-------------+--------------+------------+--------------+----------+
| agent_code | agent_name  | working_area | commission | phone_no     | country  |
+------------+-------------+--------------+------------+--------------+----------+
| A001       | Subbarao    | Bangalore    |          0 | 077-12346674 |          |
| A002       | Mukesh      | Mumbai       |          0 | 029-12358964 |          |
| A003       | Alex        | London       |          0 | 075-12458969 |          |
| A004       | Ivan        | Torento      |          0 | 008-22544166 |          |
| A005       | Anderson    | Brisban      |          0 | 045-21447739 |          |
| A006       | McDen       | London       |          0 | 078-22255588 |          |
| A007       | Ramasundar  | Bangalore    |          0 | 077-25814763 |          |
| A008       | Alford      | New York     |          0 | 044-25874365 |          |
| A009       | Benjamin    | Hampshair    |          0 | 008-22536178 |          |
| A010       | Santakumar  | Chennai      |          0 | 007-22388644 |          |
| A011       | Ravi Kumar  | Bangalore    |          0 | 077-45625874 |          |
| A012       | Lucida      | San Jose     |          0 | 044-52981425 |          |
+------------+-------------+--------------+------------+--------------+----------+
12 rows in set (0.00 sec)
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CUSTOMER
- CUST_CODE VARCHAR(6)
- CUST_NAME VARCHAR(40)
- CUST_CITY CHAR(35)
- WORKING_AREA VARCHAR(35)
- CUST_COUNTRY VARCHAR(20)
- GRADE INT
- OPENING_AMT DECIMAL(12,2)
- RECEIVE_AMT DECIMAL(12,2)
- PAYMENT_AMT DECIMAL(12,2)
- OUTSTANDING_AMT DECIMAL(12,2)
- PHONE_NO VARCHAR(17)
- AGENT_CODE CHAR(6)
- Indexes

AGENTS
- AGENT_CODE CHAR(6)
- AGENT_NAME CHAR(40)
- WORKING_AREA CHAR(35)
- COMMISSION DECIMAL(10,2)
- PHONE_NO CHAR(15)
- COUNTRY VARCHAR(25)
- Indexes

ORDERS
- ORD_NUM DECIMAL(6,0)
- ORD_AMOUNT DECIMAL(12,2)
- ADVANCE_AMOUNT DECIMAL(12,2)
- ORD_DATE DATE
- CUST_CODE VARCHAR(6)
- AGENT_CODE CHAR(6)
- ORD_DESCRIPTION VARCHAR(60)
- Indexes

Queries

DDL-

//Create
1. create database myshop **;**
2. create table agents(agent_code char(6) not null primary key,agent_name char(40),working_area char(35),commission int,phone_no char(15),country varchar(25));

//Drop
3. drop database myshop2;
4. drop table products;

//Alter
5. alter table agents add country char(20);
6. alter table agents drop country;
7. alter table customers modify cust_name varchar(40);
8. alter table daily_orders rename to orders;
9. alter table orders change column date ord_date;
10. alter table agents add constraints unk_acode UNIQUE (agent_code);
11. alter table orders add primary key (ord_num);
12. alter table orders drop primary key;
13. alter table customers add acode_fk foreign key (agent_code) refrences agent(agent_code);
14. alter table customers drop foreign key acode_fk;
15. alter table orders add constraint chk_adv check(advance_amount<100 and ord_amount>1000);
16. alter table customers drop check chk_adv;
17. alter table orders alter ord_description set default "SOD";
18. alter table orders alter ord_description drop default ;

//Truncate
19. truncate table products;

DML-

//Select-
19. select * from customers;
20. select ord_num,ord_date,ord_amount from orders;
21. select sum(commission) from agents;
22. select * from orders where ord_amount>3000;
23. select * from orders where ord_amount>3000 and advance_amount<1000;
24. select * from agents where agent_name like "S%";
25. select * from agents where agent_name like "%r";
26. select * from agents where agent_name like "__n_a%";

*27. select * from agents where agent_name like "%f%";*

//Insert
28. INSERT INTO agents VALUES ('A007', 'Ramasundar', 'Bangalore', '0.15', '077-25814763', '');

//Update
29. update customers set ord_amount+1000 where advance_payment<500;
30. update customers set ord_amount= where cust_code=200119;
31. update orders set ord_amount=ord_amount+100 where advance_amount<200;
32. update agents set commission=100 where commission=0;

//Delete
33. delete from orders where ord_amount<100;

//Using aliasis-
34. select ord_num,(ord_amount-advance_amount) as Due_Payment,ord_date from orders;
35. select distinct c.cust_code,cust_name,cust_city,c.agent_code from customers as c,orders as o where c.agent_code=o.agent_code;

//Count-
36. select count(*) from orders where ord_amount>2000;
37. select count(cust_name) from customers where receive_amt>10000;
21. select count(distinct cust_country) from customers;

//Group by-
38. select advance_amount,count(ord_num) from orders group by advance_amount;
39. select cust_country, count(*) from customers group by cust_country;
40. select cust_country, max(opening_amt) from customers group by cust_country;

//Order by
41. select cust_code,cust_name,payment_amt from customers order by payment_amt;
42. select ord_num, ord_amount, cust_code, ord_date from orders where ord_amount>3000 order by ord_date desc;

//Having-
43. select sum(outstanding_amt), cust_city from customers group by cust_city having cust_city="London";
44. select cust_country, avg(outstanding_amt) from customers group by cust_country having avg(outstanding_amt)>7000;