

IT214: Database Management Systems

Database Project

FarmConnect: A Farmer-Buyer Bidding System

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1 -----
2 --          Data Definition Language Script -- FarmConnect G7          --
3 -----
4
5 --Loaction(LocationID, District, State, RelativeDistance)
6 CREATE TABLE LOCATION (
7     LocationID BIGINT PRIMARY KEY,
8     District VARCHAR(50) NOT NULL,
9     "State" VARCHAR(50) NOT NULL,
10    RelativeDistance BIGINT NOT NULL
11 );
12
13 --Farmer(FarmerID, Name, FarmingType, City, LocationID, Rating)
14 CREATE TABLE FARMER (
15     FarmerID BIGINT PRIMARY KEY,
16     "Name" VARCHAR(50) NOT NULL,
17     FarmingType VARCHAR(50) NOT NULL,
18     City VARCHAR(50) NOT NULL,
19     LocationID BIGINT NOT NULL,
20     Rating FLOAT(2),
21     FOREIGN KEY (LocationID) REFERENCES LOCATION(LocationID) ON
        UPDATE CASCADE ON DELETE CASCADE
22 );
23
24 --FarmerEmail(FarmerID, EmailID)
25 CREATE TABLE FARMER_EMAIL (
26     FarmerID BIGINT,
27     EmailID VARCHAR,
28     PRIMARY KEY(FarmerID, EmailID),
29     FOREIGN KEY (FarmerID) REFERENCES FARMER(FarmerID) ON UPDATE
        CASCADE ON DELETE CASCADE
30 );
31
32 --FarmerPhone(FarmerID, PhoneNo)
33 CREATE TABLE FARMER_PHONENO (
34     FarmerID BIGINT,
35     PhoneNo BIGINT,
36     PRIMARY KEY(FarmerID, PhoneNo),
37     FOREIGN KEY (FarmerID) REFERENCES FARMER(FarmerID) ON UPDATE
        CASCADE ON DELETE CASCADE
38 );
39
40 --Buyer(BuyerID, Name, BuyerType, City, LocationID)
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41 CREATE TABLE BUYER (  
42     BuyerID BIGINT PRIMARY KEY,  
43     "Name" VARCHAR(50) NOT NULL,  
44     BuyerType VARCHAR(50) NOT NULL,  
45     City VARCHAR(50),  
46     LocationID BIGINT NOT NULL  
47 );  
48  
49 --BuyerEmail(BuyerID, EmailID)  
50 CREATE TABLE BUYER_EMAIL (  
51     BuyerID BIGINT,  
52     EmailID VARCHAR,  
53     PRIMARY KEY(BuyerID, EmailID),  
54     FOREIGN KEY (BuyerID) REFERENCES Buyer(BuyerID) ON UPDATE  
55         CASCADE ON DELETE CASCADE  
56 );  
57 --BuyerPhone(BuyerID, PhoneNo)  
58 CREATE TABLE BUYER_PHONENO (  
59     BuyerID BIGINT,  
60     PhoneNo BIGINT,  
61     PRIMARY KEY(BuyerID, PhoneNo),  
62     FOREIGN KEY (BuyerID) REFERENCES Buyer(BuyerID) ON UPDATE  
63         CASCADE ON DELETE CASCADE  
64 );  
65 --Crop(CropID, CropName, CropCategory, ShelfLife)  
66 CREATE TABLE CROP (  
67     CropID BIGINT PRIMARY KEY,  
68     CropName VARCHAR(20) NOT NULL,  
69     CropCategory VARCHAR(20) NOT NULL,  
70     ShelfLife VARCHAR(20) NOT NULL  
71 );  
72  
73 --Market(FarmerID, CropID, HarvestTime, Quantity, Start_Price,  
74     Status)  
75 CREATE TABLE MARKET (  
76     FarmerID BIGINT,  
77     CropID BIGINT,  
78     HarvestTime DATE,  
79     Quantity FLOAT(2) NOT NULL,  
80     Start_Price FLOAT(2) NOT NULL,  
81     Status VARCHAR(20) NOT NULL,
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81 PRIMARY KEY (FarmerID, CropID, HarvestTime),
82 FOREIGN KEY (FarmerID) REFERENCES Farmer(FarmerID) ON UPDATE
    CASCADE ON DELETE CASCADE,
83 FOREIGN KEY (CropID) REFERENCES Crop(CropID) ON UPDATE CASCADE
    ON DELETE CASCADE
84 );
85
86 --Bid(BidID, BuyerID, FarmerID, CropID, BidAmount, BidTime,
    BidStatus, HarvestTime)
87 CREATE TABLE BID (
88     BidID BIGINT PRIMARY KEY,
89     BuyerID BIGINT NOT NULL,
90     FarmerID BIGINT NOT NULL,
91     CropID BIGINT NOT NULL,
92     BidAmount FLOAT(2) NOT NULL,
93     BidTime TIMESTAMP NOT NULL,
94     BidStatus VARCHAR(20) NOT NULL,
95     HarvestTime DATE NOT NULL,
96     FOREIGN KEY (BuyerID) REFERENCES Buyer(BuyerID) ON UPDATE
        CASCADE ON DELETE CASCADE,
97     FOREIGN KEY (FarmerID, CropID, HarvestTime) REFERENCES MARKET(
        FarmerID, CropID, HarvestTime) ON UPDATE CASCADE ON DELETE
        CASCADE
98 );
99
100 --Transaction(TransactionID, BidID, TotalPayableCharges,
    PaymentMethod, PaymentStatus, TransTime)
101 CREATE TABLE TRANSACTION (
102     TransactionID BIGINT PRIMARY KEY,
103     BidID BIGINT NOT NULL,
104     TotalPayableCharges FLOAT(2),
105     PaymentMethod VARCHAR(50) NOT NULL,
106     PaymentStatus VARCHAR(20) NOT NULL,
107     TransTime TIMESTAMP NOT NULL,
108     FOREIGN KEY (BidID) REFERENCES Bid(BidID) ON UPDATE CASCADE ON
        DELETE CASCADE
109 );
110
111 --CropRequested(BuyerID, CropID, QtyRequired, Aprice, Status,
    RequestTime)
112 CREATE TABLE CROPREQUESTED (
113     BuyerID INT NOT NULL,
114     CropID INT NOT NULL,
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115     FarmerID INT,  
116     QtyRequired INT NOT NULL,  
117     APrice FLOAT(2) NOT NULL,  
118     Status VARCHAR(20) NOT NULL,  
119     ReqTime TIMESTAMP NOT NULL,  
120     PRIMARY KEY (BuyerID, CropID, ReqTime),  
121     FOREIGN KEY (BuyerID) REFERENCES Buyer(BuyerID) ON UPDATE  
122     CASCADE ON DELETE CASCADE,  
123     FOREIGN KEY (CropID) REFERENCES Crop(CropID) ON UPDATE CASCADE  
124     ON DELETE CASCADE,  
125     FOREIGN KEY (FarmerID) REFERENCES Farmer(FarmerID) ON UPDATE  
126     CASCADE ON DELETE CASCADE  
127 );
```