

DBMS TASK 2

Dencymol Baby

Domain: **Online auction system for antique product**

An online antique auction system enables global access to culturally significant items, fostering the preservation of heritage. Seller's benefit from an expanded market, connecting with a diverse audience and ensuring better prices. The platform accommodates a wide range of antiques, promoting transparency through detailed descriptions and bidding histories. The dynamic auction process adds excitement and competition, enhancing the buying experience. Secure transactions and encrypted payment methods ensure the safety of high-value exchanges. A feedback system builds trust and community by allowing users to share experiences and rate transactions, empowering buyers with informed decisions.

Data Tables:

Customer Table:

customerID	FName	LName	email	Phone	address
1	John	Doe	john.doe@email.com	123-456-7890	123 Main St, City
2	Jane	Smith	jane.smith@email.com	987-654-3210	456 Oak Ave, Town
3	Robert	Johnson	robert.johnson@email.com	555-123-4567	789 Maple Dr, Village
4	Sarah	White	sarah.white@email.com	111-222-3333	101 Pine Ln, Hamlet
5	David	Lee	david.lee@email.com	999-888-7777	202 Cedar Rd, City
6	Emily	Johnson	emily.johnson@email.com	777-111-2222	303 Elm St, Suburb
7	Michael	Davis	michael.davis@email.com	333-444-5555	404 Oak St, Countryside

Item Table

ItemID	ItemName	Description	basePrice
1	Antique Vase	Vintage porcelain vase	150
2	Rare Painting	Landscape oil painting	300
3	Old Pocket Watch	Antique gold-plated timepiece	200
4	Vintage Chair	Hand-carved wooden chair	75

5	Ancient Book	Leather-bound historical text	180
6	Silver Spoon	Intricately designed silver spoon	50
7	Art Deco Mirror	Elegant art deco style mirror	120

Category Table:

categoryID	categoryName
201	Antiques
202	Art
203	Timepieces
204	Furniture
205	Books

User Role Table:

RoleID	Role
R-101	User
R-102	Admin

Auction Table:

auctionID	itemID	date	time	proposedPaymentDate
1	1	2023-02-01	14:00:00	2023-02-05 15:30:00
2	2	2023-02-10	16:30:00	2023-02-15 18:45:00
3	3	2023-02-20	12:00:00	2023-02-25 14:15:00
4	4	2023-03-01	18:00:00	2023-03-05 20:30:00
5	5	2023-03-10	15:30:00	2023-03-15 17:45:00
6	6	2023-03-20	14:30:00	2023-03-25 18:00:00
7	7	2023-04-20	17:00:00	2023-04-26 10:00:00

Feedback Table:

feedbackID	comment
1	Terrible
2	Poor
3	Average
4	Good
5	Excellent

User Table

userID	userName	password	joiningDate
1	johndoe	<encrypted_pass>	2023-01-01 10:00:00
2	janesmith	<encrypted_pass>	2023-01-02 12:30:00
3	robertj	<encrypted_pass>	2023-01-03 14:45:00
4	sarahw	<encrypted_pass>	2023-01-04 16:00:00
5	davidl	<encrypted_pass>	2023-01-05 18:15:00
6	emilyj	<encrypted_pass>	2023-01-06 20:30:00
7	michaeld	<encrypted_pass>	2023-01-07 22:45:00

Shipment Information Table:

shipmentID	shipmentDate	ShippingCost
401	2023-02-06 09:45:00	20
402	2023-02-16 14:20:00	15
403	2023-02-26 11:30:00	18
404	2023-03-08 16:45:00	10
405	2023-03-18 18:00:00	25

PaymentMethod Table:

paymentMethodID	paymentMethodName	paymentFee
301	Credit Card	2.50
302	PayPal	1.75
303	Bank Transfer	0.50
304	Bitcoin	0.75
305	Cash on Delivery	0.00

User_Bid_Registration Table:

id	userID	auctionID	registrationDate
1	5	1	2023-02-02 10:15:00
2	2	2	2023-02-11 12:00:00
3	3	3	2023-02-21 09:30:00
4	4	1	2023-03-02 14:45:00
5	4	3	2023-03-11 16:00:00

UserWalletMApping Table:

bidWalletID	customerID
W-1	1

W-2	2
W-3	3
W-4	4
W-5	5
W-6	6
W-7	7

UserFeedbackMapping Table:

id	User_Bid_Registration_ID	FeedbackID	userComment
1	1	4	Great experience!
2	2	5	Excellent service
3	3	3	Needs improvement
4	4	2	Dissatisfied purchase
5	5	5	Highly recommended

Bid_coin_bag Table:

bid_coin_bag_Id	bid_coins	bidWalletId
101	500	W-1
102	750	W-2
103	600	W-3
104	300	W-4
105	800	W-5
106	400	W-6
107	300	W-7
108	450	W-4
109	750	W-3
110	430	W-5

bid_transaction_log Table:

bid_transaction_log_id	PaymentMethodID	bid_coin_bag_id	amount	DateTime
1	301	101	100	2023-08-15 09:30:00
2	302	102	200	2023-04-27 18:45:00
3	303	101	50	2023-11-05 12:15:00
4	304	103	75	2023-06-10 21:00:00

5	305	104	120	2023-02-19 08:00:00
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UserCustomerMapping Table:

userCustomerMapping ID	UserID	customerID	roleID
1	1	1	R-101
2	2	2	R-101
3	3	3	R-102
4	4	4	R-101
5	5	5	R-102
6	6	6	R-101
7	7	7	R-102

AuctionWinner Table:

AuctionWinnerI	auctionID	CustomerId	bid_transaction_log_id
1	1	1	301
2	2	2	302
3	3	3	303
4	4	4	304
5	5	5	305

Shipment AuctionWinner Mapping Table

ShipmentAuctionWinnerID	shipmentID	AuctionWinnerID
SA-1	401	1
SA-2	402	2
SA-3	403	3
SA-4	404	4
SA-5	405	5

ItemCategoryMapping Table:

itemCategoryMappingID	ItemID	categoryID	SellerID
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1	1	201	1
2	2	202	6
3	3	203	5
4	4	204	4
5	5	205	5
6	6	201	2
7	7	202	4

Attribute, Datatype, Description and Constraints

Customer Table:

Attribute	Datatype	Description	Constraints
customerID	INT	Customer ID	Primary Key, NOT NULL
FName	VARCHAR	First Name	NOT NULL
LName	VARCHAR	Last Name	NOT NULL
email	VARCHAR	Email Address	NOT NULL, UNIQUE
Phone	VARCHAR	Phone Number	NOT NULL
address	TEXT	Customer Address	

Item Table:

Attribute	Datatype	Description	Constraints
ItemID	INT	Item ID	Primary Key, NOT NULL
ItemName	VARCHAR	Item Name	NOT NULL
Description	TEXT	Item Description	
basePrice	DECIMAL	Item Base Price	NOT NULL

Category Table:

Attribute	Datatype	Description	Constraints
categoryID	INT	Category ID	Primary Key, NOT NULL
categoryName	VARCHAR	Category Name	NOT NULL

User Role Table:

Attribute	Datatype	Description	Constraints
RoleID	INT	User Role ID	Primary Key, NOT NULL
Role	VARCHAR	User Role	NOT NULL

Auction Table:

Attribute	Datatype	Description	Constraints
auctionID	INT	Auction ID	Primary Key, NOT NULL

itemID	INT	Item ID for the auction	Foreign Key(ItemID), NOT NULL
date	DATE	Auction Date	NOT NULL
time	TIME	Auction Time	NOT NULL
proposedPaymentDate	DATE	Proposed Payment Date	

Feedback Table:

Attribute	Datatype	Description	Constraints
feedbackID	INT	Feedback ID	Primary Key, NOT NULL
comment	TEXT	Feedback Comment	NOT NULL

User Table:

Attribute	Datatype	Description	Constraints
UserId	INT	User ID	Primary Key, NOT NULL
userName	VARCHAR	User Name	NOT NULL
password	VARCHAR	User Password	NOT NULL
joiningDate	DATE	User Joining Date	NOT NULL

Shipment Information Table:

Attribute	Datatype	Description	Constraints
shipmentID	INT	Shipment ID	Primary Key, NOT NULL
shipmentDate	DATE	Shipment Date	NOT NULL
ShippingCost	DECIMAL	Shipping Cost	NOT NULL

PaymentMethod Table:

Attribute	Datatype	Description	Constraints
paymentMethodID	INT	Payment Method ID	Primary Key, NOT NULL
paymentMethodName	VARCHAR	Payment Method Name	NOT NULL
paymentFee	DECIMAL	Payment Method Fee	NOT NULL

User_Bid_Registration Table:

Attribute	Datatype	Description	Constraints
id	INT	Registration ID	Primary Key, NOT NULL
userID	INT	User ID for registration	Foreign Key(userID), NOT NULL
auctionID	INT	Auction ID for registration	Foreign Key(auctionID), NOT NULL
registrationDate	DATE	Registration Date	NOT NULL

UserWalletMapping Table:

Attribute	Datatype	Description	Constraints
bidWalletID	INT	Bid Wallet ID	Primary Key, NOT NULL
CustomerID	INT	Customer ID	Foreign Key(CustomerID), NOT NULL

UserFeedbackMapping Table:

Attribute	Datatype	Description	Constraints
id	INT	Mapping ID	Primary Key, NOT NULL
User_Bid_Registration_ID	INT	User Bid Registration ID	Foreign Key(User_Bid_Registrat ion_ID), NOT NULL
FeedbackID	INT	Feedback ID	Foreign Key(FeedbackID), NOT NULL
userComment	TEXT	User Comment for Feedback	

Bid_coin_bag Table:

Attribute	Datatype	Description	Constraints
bid_coin_bag_Id	INT	Bid Coin Bag ID	Primary Key, NOT NULL
bid_coins	DECIMAL	Amount of Bid Coins	NOT NULL
bidWalletId	INT	Bid Wallet ID	Foreign Key(bidWalletId), NOT NULL

bid_transaction_log Table:

Attribute	Datatype	Description	Constraints
bid_transaction_log_id	INT	Transaction Log ID	Primary Key, NOT NULL
PaymentMethodID	INT	Payment Method ID	Foreign Key(PaymentMethodID), NOT NULL
bid_coin_bag_id	INT	Bid Coin Bag ID	Foreign Key(bid_coin_bag_Id), NOT NULL
amount	DECIMAL	Transaction Amount	NOT NULL
DateTime	DATETIME	Transaction Date and Time	NOT NULL

UserCustomerMapping Table:

Attribute	Datatype	Description	Constraints
userCustomerMappingID	INT	User-Customer Mapping ID	Primary Key, NOT NULL

UserID	INT	User ID	Foreign Key(UserID), NOT NULL
customerID	INT	Customer ID	Foreign Key(customerID), NOT NULL
roleID	INT	Role ID	Foreign Key(roleID), NOT NULL

AuctionWinner Table:

Attribute	Datatype	Description	Constraints
AuctionWinnerID	INT	Auction Winner ID	Primary Key, NOT NULL
auctionID	INT	Auction ID	Foreign Key(auctionID), NOT NULL
CustomerId	INT	Customer ID	Foreign Key(CustomerId), NOT NULL
bid_transaction_log_id	INT	Bid Transaction Log ID	Foreign Key(bid_transaction_log_id), NOT NULL

ShipmentAuctionWinnerMapping Table:

Attribute	Datatype	Description	Constraints
ShipmentAuctionWinnerID	INT	Shipment-AuctionWinner Mapping ID	Primary Key, NOT NULL
shipmentID	INT	Shipment ID	Foreign Key(shipmentID), NOT NULL
AuctionWinnerID	INT	AuctionWinner ID	Foreign Key(AuctionWinnerID), NOT NULL

ItemCategoryMapping Table:

Attribute	Datatype	Description	Constraints
itemCategoryMappingID	INT	Item-Category Mapping ID	Primary Key, NOT NULL
ItemID	INT	Item ID	Foreign Key(ItemID), NOT NULL
categoryID	INT	Category ID	Foreign Key(categoryID), NOT NULL
SellerID	INT	Seller (User) ID	Foreign Key(SellerID), NOT NULL

ER Diagram

