FlipKart

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Team 3

CS157a Section 1

1. Entity Sets

a. User - This set represents the registered users of Flipkart. This set store user information.
b. Address - This set represents the addresses registered to Flipkart users.
c. Shopping Cart - Each user has a shopping cart assigned to them. The shopping cart will store items selected for purchase by the user. The shopping cart can be edited by the user that owns it.
d. Wishlist - The wishlist will store items of interest selected by the user. The wish list can be edited by the user that owns it.
e. Payment Information - This set will store primary keys for individual payment information.
f. Credit Card - This set will inherit the primary key from the payment information set. It will store credit card information such as credit card number, CVV, name, and expiration date.
g. Paypal - This set will inherit the primary key from the payment information set. It will store the users PayPal ID
h. Product - This set represents all the items that are being sold on FlipKart. It will store information such as a unique product id, product name, description, image, and price.
i. Category - This set represents the categories that a product can belong to. It stores a unique category id and the name of the category.

2. Relationships

a. Has - This relationship is a many to one relationship. It keeps track of the payment information of each user. Each user can have multiple payment methods but each payment method can only be associated with one user.
b. Lists - This relationship is a one to many relationship. It keeps track of the products listed for sale by a user. Each user can list multiple items for sale but each listed item can only have one seller.
c. Edits - This relationship is one to many. It keeps track of the product lists that a user has. Each user can have many shopping lists but each shopping list can only be attributed to one user.
d. Contains - This relationship is a many to one relationship. It keeps track of the products in a shopping cart. Each shopping cart can have many products and each product can only be in one cart.
e. In - This relationship is a many to one relationship. Each product can only have one category and each category can have multiple products.

f. Ships to - This relationship is a many to many relationship. It keeps track of the addresses associated with specific users. Each user can have multiple addresses and the same address can be associated with multiple users.

3. Entity Schemas

a. User(UserID, Name, Email, Phone Number, Password)
b. Address(Address, UserID, State, City, Country, Postal Code)
c. ProductList(ListID)
d. WishList(ListID, Num_Items)
e. ShoppingCart(ListID, Num_Items, totalPrice)
f. PaymentInfo(PaymentID)
g. CreditCard(PaymentID, CardNumber, CardholderName, CVV, ExpDate)
h. Paypal(PaymentID, PaypalID)
i. Product(ProductID, Name, Description, Price, Image)
j. Category(CategroyID, CategroyName)

4. Relationship Schemas

a. Uses(AddressID, UserID)
b. Has(UserID, PaymentID)
c. Edits(UserID, ListID, ProductID, Quantity)
d. Lists(UserID, ProductID)
e. Contains(ListID, ProductID)
f. In(ProductID, CatergoryID)

5. Database Tables

Responsibilities

Danny Song - ER Diagram, Entity Set and Relationship Explanations, Schema Conversion
Ting Ting Xu - Database table creation
Jinhan Han - ER Diagram