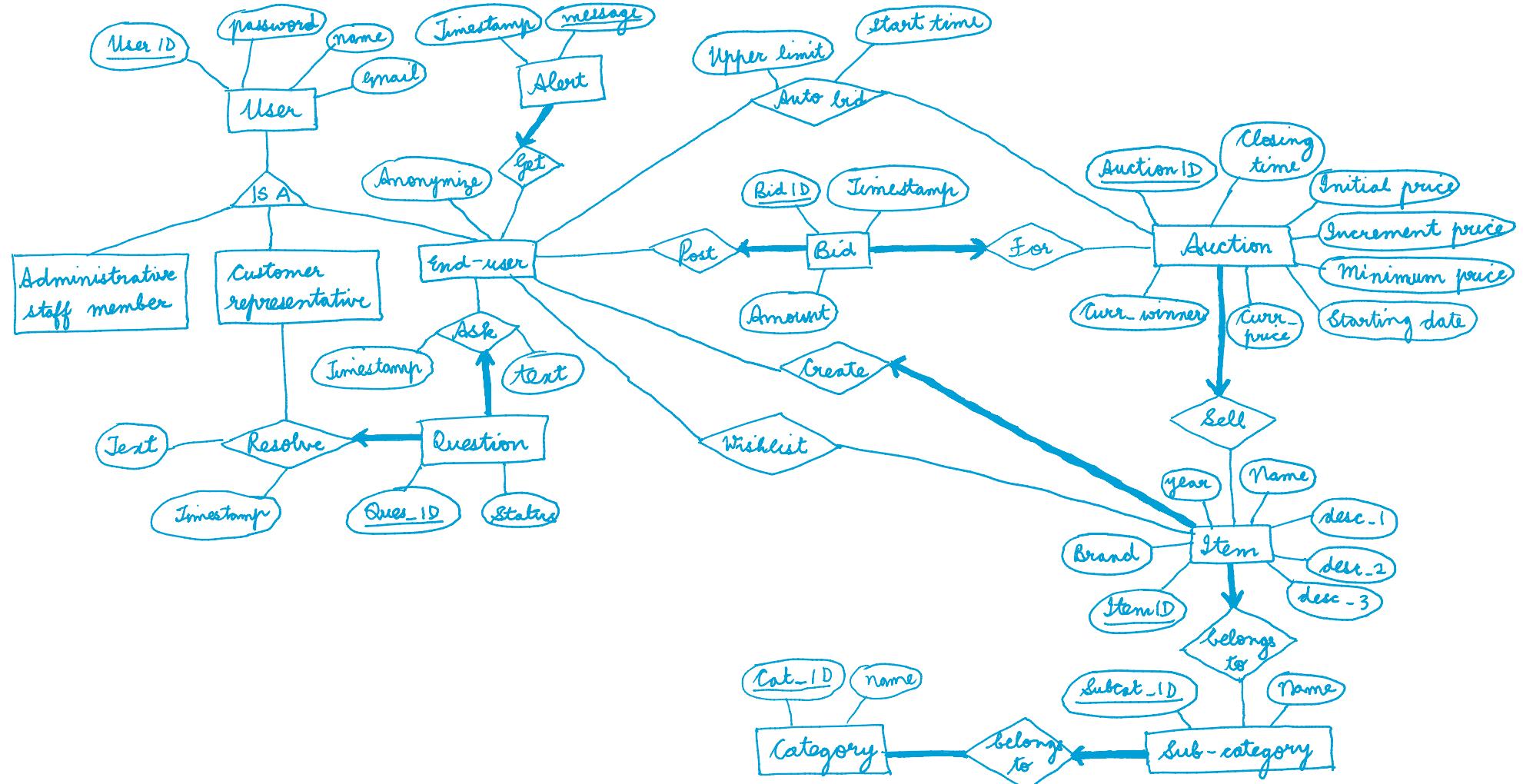


Project_group 1

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User (user_id : varchar(10),
      password : varchar(20),
      name : varchar(50),
      email : varchar(50),
      primary key (user_id))

Administrative_staff_member (user_id : varchar(10),
                               primary key (user_id),
                               foreign key (user_id) references User (user_id))

CustomerRepresentative (user_id : varchar(10),
                        primary key (user_id),
                        foreign key (user_id) references User (user_id))

//buyers and sellers
EndUser (user_id : varchar(10),
          anonymize : bool,      //whether end-user wants to show her actual user_id and email address in auctions
          primary key (user_id),
          foreign key (user_id) references User (user_id))

//notifications for end-users
Alert (endUserLogin : varchar(10),
       timestamp : datetime,
       message : varchar(5000),
       primary key (endUserLogin, message),
       foreign key (endUserLogin) references EndUser (user_id))

//customer representatives answers questions asked by end-users
Question (ques_id : int,
          ques_text : varchar(500),
          ans_text : varchar(500),
          status : enum('resolved', 'pending'),
          timestamp_asked : datetime,
          timestamp_resolved : datetime,
          endUserLogin : varchar(10),
          customerRepLogin : varchar(10),
          primary key (ques_id),
          foreign key (endUserLogin) references EndUser (user_id),
          foreign key (customerRepLogin) references CustomerRepresentative (user_id))

//category of items (e.g., vehicles or clothing or computers ...)
Category (cat_id : varchar(10),
           name : varchar(20),
           primary key (cat_id))

//e.g., truck, motorbike, car for vehicles
SubCategory (cat_id : varchar(10),
             subcat_id : varchar(10),
             name : varchar(20),
             primary key (cat_id, subcat_id),
             foreign key (cat_id) references Category (cat_id))

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Item (cat_id : varchar(10),
      subcat_id : varchar(10),
      item_id : varchar(10),
      name : varchar(20),
      brand : varchar(20),
      year : year,      //year of manufacture
      desc_1 : varchar(100),
      desc_2 : varchar(100),
      desc_3 : varchar(100),
      created_by : varchar(10),    //seller who added the item listing
      primary key (cat_id, subcat_id, item_id),
      foreign key (cat_id, subcat_id) references Sub-category (cat_id, subcat_id),
      foreign key (created_by) references End-user (user_id))

Auction (auction_id : int,
          cat_id : varchar(10),
          subcat_id : varchar(10),
          item_id : varchar(10),
          starting_time : datetime,
          closing_time : datetime,
          initial_price : int,
          increment_price : int,
          minimum_price : int,      //(secret) the seller is not willing to give up the item for less
          curr_winner : varchar(10),
          curr_price : int,
          primary key (auction_id),
          foreign key (cat_id, subcat_id, item_id) references Item (cat_id, subcat_id, item_id),
          foreign key (curr_winner) references End-user (user_id))

Bid (bid_id : int,
      user_id : varchar(10),
      auction_id : int,
      timestamp : datetime,
      amount : int,
      primary key (bid_id),
      foreign key (user_id) references End-user (user_id),
      foreign key (auction_id) references Auction (auction_id))

//automatically put a bid for a user, every time someone bids higher than her
Auto_bid (user_id : varchar(10),
           auction_id : int,
           start_time : datetime,
           upper_limit : int,      //(secret) maximum amount an end-user is willing to pay
           primary key (user_id, auction_id),
           foreign key (user_id) references End-user (user_id),
           foreign key (auction_id) references Auction (auction_id))

//items which an end-user is interested in buying
Wishlist (user_id : varchar(10),
           cat_id : varchar(10),

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subcat_id : varchar(10),  
item_id : varchar(10),  
primary key (user_id, cat_id, subcat_id, item_id),  
foreign key (user_id) references End-user (user_id),  
foreign key (cat_id, subcat_id, item_id) references Item (cat_id, subcat_id, item_id))
```