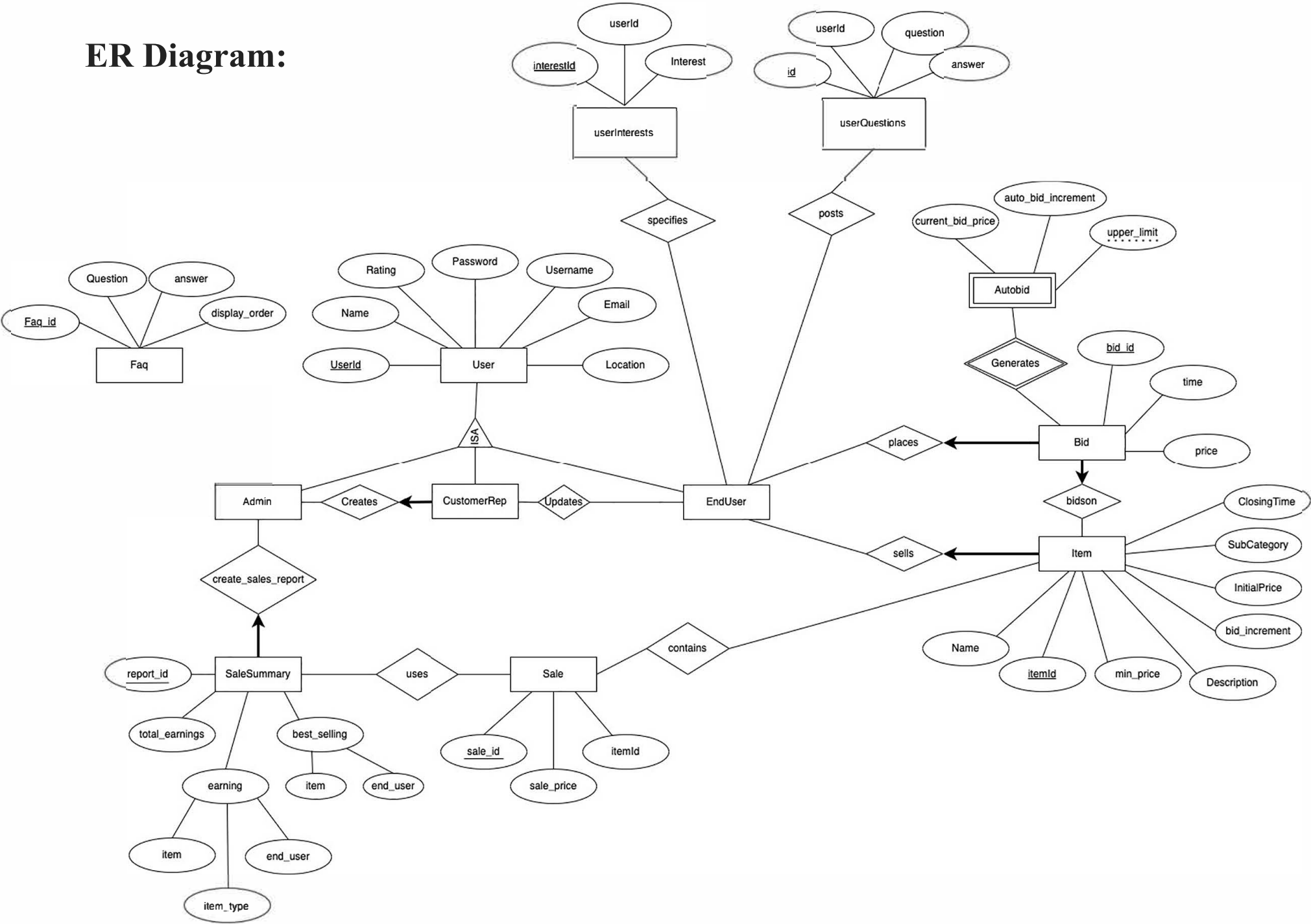


ER Diagram:



## Relational Schema:

**User (**  
    userId: **string**,  
    name: **string**,  
    username: **string**,  
    password: **string**,  
    email: **string**,  
    location: **string**,  
    Primary Key (userId));

**Admin (**  
    userId: **string**,  
    name: **string**,  
    password: **string**,  
    username: **string**,  
    email: **string**,  
    location: **string**,  
    Primary Key (UserId),  
    Foreign Key (UserId) references User );

**CustomerRep (**  
    userId: **string**,  
    name: **string**,  
    password: **string**,  
    username: **string**,  
    email: **string**,  
    location: **string**,  
    Primary Key(UserId),  
    Foreign Key (UserId) references User );

**EndUser (**  
    userId: **string**,  
    name: **string**,  
    password: **string**,  
    Username: **string**,  
    email: **string**,  
    rating: **real**,  
    location: **string**,  
    Primary Key (userId),  
    Foreign Key (userId) references User);

**Item (**  
    userId: **integer**,  
    itemId: **varchar**,  
    name: **varchar**,  
    description: **varchar**,  
    subcategory: **enum**,  
    initialprice: **real**,  
    closingtime: **time**,  
    bidincrement: **real**,  
    minprice: **real**,  
    Primary Key (itemId),  
    Foreign Key (userId) references EndUser(userId));

**Bid (**  
    bid\_id: **integer**,  
    userId: **integer**,  
    itemId: **varchar**,  
    status: **enum**,  
    winning\_bid: **bit**,  
    price: **real**,  
    time: **time**,  
    Primary Key (bid\_id)  
    Foreign Key (itemId) references Item(itemId));

**AutoBid (**  
    auto\_bid\_id: **integer**,  
    userId: **int**,  
    itemId: **varchar**,  
    auto\_bid\_increment: **double**,  
    upper\_limit: **double**,  
    Primary Key (auto\_bid\_id),  
    Foreign Key (userId) references User(userId),  
    Foreign Key (itemId) references Item(itemId));

**UserInterests(**  
    interestId: **integer**,  
    userId: **integer**,  
    interest: **string**,  
    Primary Key(interestId),  
    Foreign Key(userId) references EndUser(userId));

**UserQuestion (**  
    id: **integer**,  
    userId: **integer**,  
    question: **text**,  
    answer: **text**,  
    Foreign Key (userId) references EndUser(userId));

**Sale (**  
    sale\_id: **real**,  
    list\_price: **real** ,  
    sale\_price: **real**,  
    itemId: **real**,  
    buyer\_id: **string**,  
    seller\_id: **string**,  
    Foreign Key (seller\_id) references User(userId),  
    Foreign Key (buyer\_id) references User(userId),  
    Foreign Key (itemId) references Item(itemId);

**Faq (**  
    faq\_id: **integer**,  
    question: **varchar**,  
    answer: **text**,  
    display\_order: **integer**);