

**Candidate Keys:**

Account:

* Username
* Email
* Phone\_Number

Admin:

* Username
* SSN

User:

* Username
* User\_ID

Buyer:

* Username

Seller:

* Username

Listing:

* Listing\_ID

Listing-Photos:

* Listing\_ID, Photos

ProductCategory:

* Category\_ID

Review:

* Review\_ID
* Listing\_ID, Reviewer\_Username, Reviewee\_Username

Membership:

* Username, Membership\_ID

MembershipType:

* Tier

**Functional Dependencies:**

Account:

* Username -> Password, Email, First\_Name, Last\_Name, Phone\_Number
* Email -> Username, Password, First\_Name, Last\_Name, Phone\_Number
* Phone\_number -> Username, Password, First\_name, Last\_name, E-mail

Admin:

* Username -> SSN, Address, Salary
* SSN -> Username, Address, Salary

User:

* Username -> User\_ID, Gender, Registration\_Date

Buyer:

* Username -> Username

Seller:

* Username -> Bio

Listing:

* Listing\_ID -> Name, Description, Price, Category\_ID, Seller\_Username, Buyer\_Username, Buy\_Date, Post\_Date

Listing-Photos:

* Listing\_ID, Photos -> Listing\_ID, Photos

ProductCategory:

* Category\_ID -> Category\_Name

Review:

* Review\_ID -> Review\_Text, Rating, Successful\_Transaction, Listing\_ID, Reviewer\_Username, Reviewee\_Username
* Listing\_ID, Reviewer\_Username, Reviewee\_Username -> Review\_ID, Review\_Text, Rating, Successful\_Transaction

Membership:

* Username, Membership\_ID -> End\_Date, Tier

MembershipType:

* Tier -> Duration, Max\_Listings, Price

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