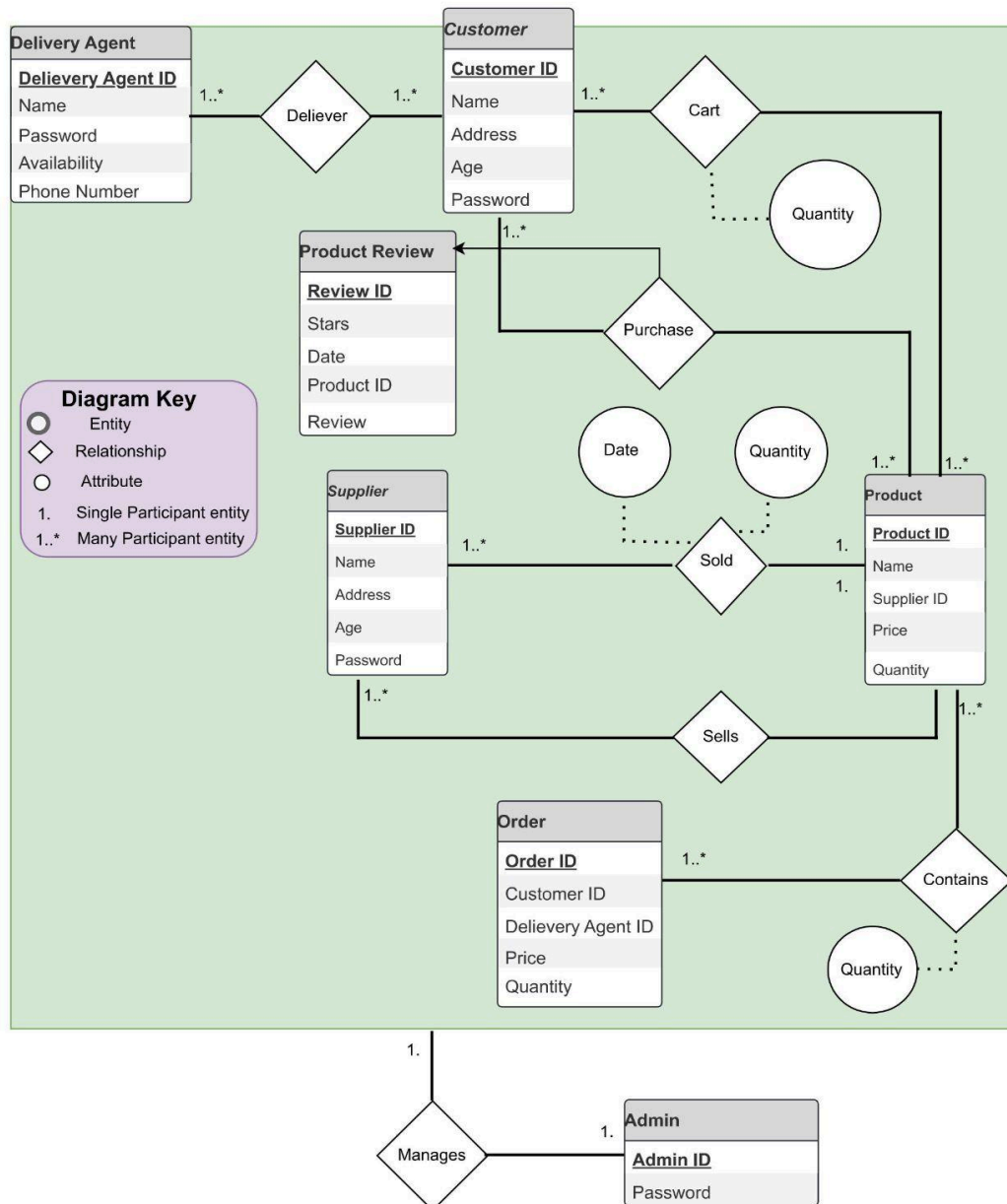


Entity-Relationship Model

Entity-relationship (ER) Models are used to plan how different entities in a project interact with each other. Our ER Model captures the nature of the relationships and entities planned to be used in the project. We plan to build our system based on the following Entity-Relationship Model:



Ternary Relationships

Customer - Product - Product Review: A customer can review multiple products, and a product can be reviewed by multiple customers. A customer can give at most one review per product. This ternary relationship will be decomposed into the following binary relationships at the time of implementation:

- (a) Customer - Product: (Many-to-Many) To keep track of which customers have purchased which products.
- (b) Product - Product Review: (One-to-Many) To keep track of all reviews given to a product.
- (c) Customer - Product Review: (One-to-Many) To keep track of all reviews given by a customer. This relationship may not be needed and may be removed in the future.

Relational Model

Relationship Models represent how data will be stored in the database along with the attributes of each entity and relationship.

Admin

<u>Admin ID</u>	Password
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Customer

<u>Customer ID</u>	Name	Age	Password	Phone Number	Address
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Supplier

<u>Supplier ID</u>	Name	Age	Password	Phone Number	Address
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Delivery Agent

<u>Delivery Agent ID</u>	Name	Availability	Password	Phone Number
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Product

<u>Product ID</u>	<u>Supplier ID</u>	Name	Price	Quantity
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Order

<u>Order ID</u>	<u>Customer ID</u>	<u>Delivery Agent ID</u>	Price	Quantity	Est. Arrival time
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Product Review

<u>Review ID</u>	<u>Customer ID</u>	<u>Product ID</u>	Stars	Date	Content
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Description

<u>Product ID</u>	Content
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Contains

<u>Order ID</u>	<u>Product ID</u>	Quantity
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Deliver

<u>Delivery Agent ID</u>	<u>Customer ID</u>	<u>Review ID</u>
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Purchase

<u>Purchase ID</u>	<u>Customer ID</u>	<u>Review ID</u>
--------------------	--------------------	------------------

Cart

<u>Customer ID</u>	<u>Product ID</u>	Quantity
--------------------	-------------------	----------

Sells

<u>Supplier ID</u>	<u>Product ID</u>
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Sold

<u>Supplier ID</u>	<u>Product ID</u>	Date	Quantity
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Diagram Key

	Primary Key
	Foreign Key
	Attribute