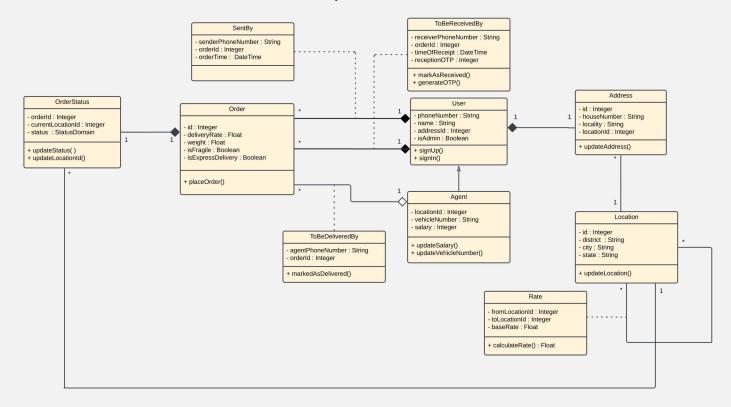


**UML CLASS DIAGRAM** 

## CS301P-2023-06 Keshav(003), Harsh(016) and Subhajeet(022)



### Lucid Chart Link

NOTE: We have extensively used association classes in our design, for eg. in the SentBy, ToBeReceivedBy and the ToBeDeliveredBy relations. The primary key of all these tables is orderId itself leading to associations in both directions: Order.id references SentBy.orderId in some joins and SentBy.orderId references Order.id in other joins.

#### Order

Primary key: id

Foreign key: id references SentBy.orderId, ToBeReceivedBy.orderId, ToBeDeliveredBy.orderId, OrderStatus.orderId

id, deliveryRate, weight, isFragile, isExpressDelivery NOT NULL

### OrderStatus

Primary key: orderld

Foreign key: orderld references Order.id

currentLocationId references

orderld NOT NULL

#### SentBy

Primary key: orderId

Foreign key: orderId references
Order.id

senderPhoneNumber references
User.phoneNumber

orderId, senderPhoneNumber NOT NULL

#### ToBeReceivedBy

Primary key: orderId

Foreign key: orderld references Order.id

receiverPhoneNumber references
User.phoneNumber

orderId, receiverPhoneNumber NOT NULL

## ToBeDeliveredBy

Primary key: orderId

Foreign key: orderld references Order.id

agentPhoneNumber references
User.phoneNumber

orderId, agentPhoneNumber NOT NULL

#### User

Primary key: phoneNumber

Foreign key: addressId references Address.id

name, phoneNumber, addressId, isAdmin NOT NULL

Agent (Inherited from User)

Primary key: phoneNumber

Foreign key: addressId references Address.id

locationId references Location.id

name, phoneNumber, addressId, isAdmin, locationId NOT NULL

#### Address

Primary key: id

Foreign key: locationId references Location.id

id, locationId NOT NULL

#### Location

Primary key: id

id, city, state, district NOT NULL

#### Rate

Primary key: { fromLocationId, toLocationId }

Foreign key: fromLocationId references Location.id

toLocationId references Location.id

fromLocationId, toLocationId NOT NULL

# Relational Schema:

# Order relation:

	<u>id</u> [	eliveryRate we		ight isF		Fragile isEx		essDelivery	
-	<b>1</b>								
	OrderStatus relation:								
Ш	<u>orderld</u>		currentLocationId			status			
	SentBy relation:  orderId senderphoneNumber orderTime								
	<u>orderld</u>	\$	senderpnor		nenumber		orderTime		
-	ToBeReceivedBy relation:								
	orderId		erPhoneNumber		timeofReceipt		ReceptionOTP		
	9.46.114		cimentalises cimeditate			pc   Reception o n			
Ī	ToBeDeliveredBy relation:								
	<u>orderld</u>	agentPhoneN	PhoneNumber						
	User relation:								
L	phoneNumber	name	name		addressId		isAdmin		
Agent relation:									
	locationId address	ld name	name vehicleN		phoneNum	<u>iber</u> i	isAdmin	salary	
<sub>T</sub>									
	Address relation:								
	id	houseNum	ouseNumber		Locality		locationId		
-									
Location relation:									
<u>'</u> -	id	district	district		city		state		
Rate relation:									
	fromLocationId toLocationId baseRate								
	<u>ITOTILOCACIONIA</u>		tolocationia			,	Daschate		
L									