

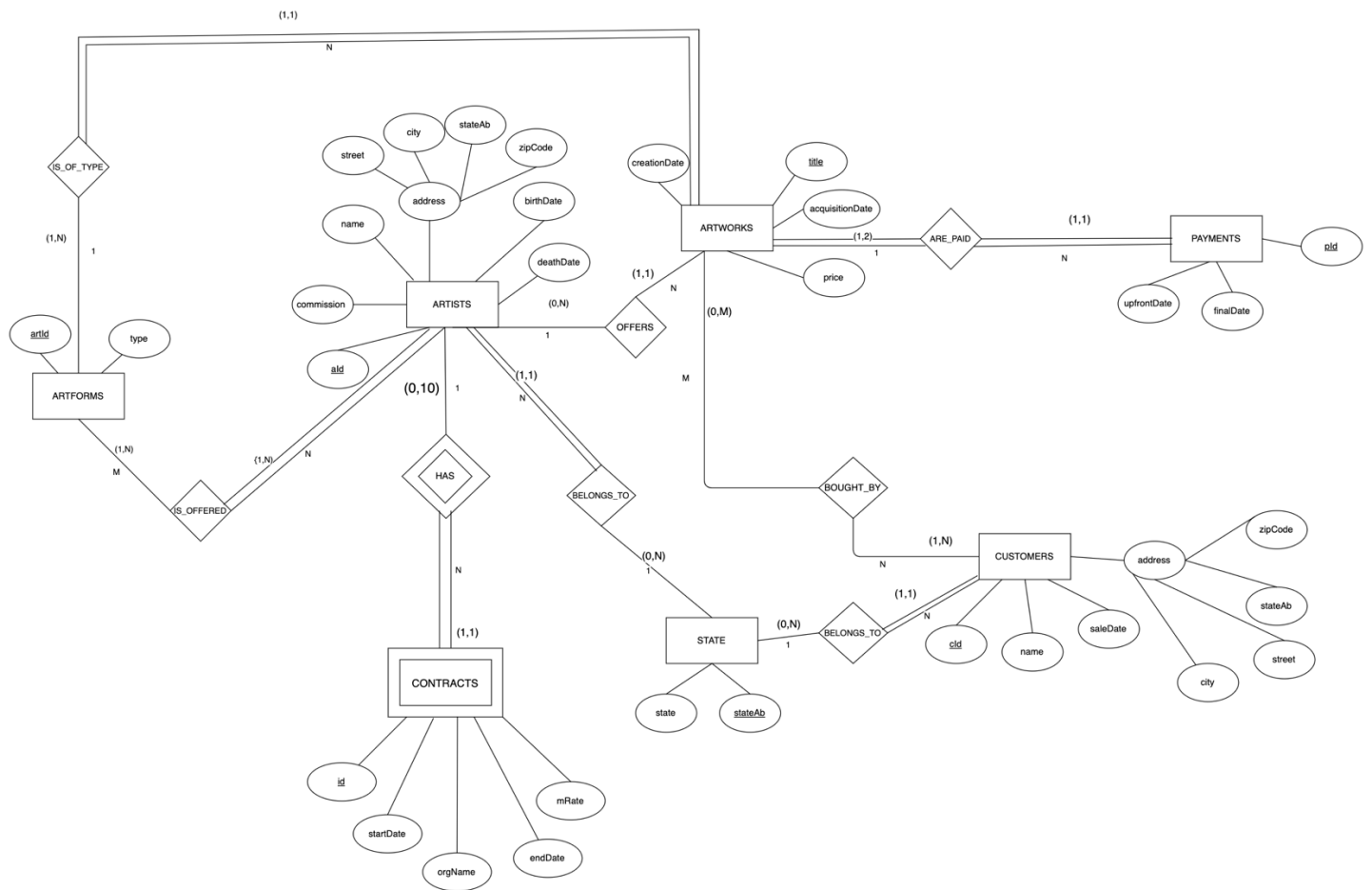
Design Tools

- **diagrams.net**
 - It's available as a Web service and can connect to Google Drive, Dropbox, and OneDrive for storage.
 - It helps us to build flowcharts, UML diagrams and process diagrams, ERDs, org charts, mindmaps and much more.

Roles and Responsibilities

- **Planning**
 - Agenda
 - As a team, we had formal planning of the requirements.
 - Broken down the requirements into smaller simpler modules that can be achieved independently
 - The modules that were dependent on others were planned to be implemented in a later stage as part of individual work integrations
- **Outcome**
 - **Modules**
 - Designing of Entities
 - ARTISTS
 - ARTWORKS
 - CONTRACTS
 - CUSTOMERS
 - STATE
 - PAYMENTS
 - ARTFORMS
 - **Relationships**
 - BOUGHT_BY
 - ARTWORKS AND CUSTOMERS
 - IS_OFFERED
 - ARTFORMS AND ARTISTS
 - HAS
 - ARTISTS AND CONTRACTS
 - BELONGS_TO
 - ARTISTS AND STATE

- CUSTOMERS AND STATE
 - IS_OF_TYPE
 - ARTFORMS AND ARTWORKS
 - ARE_PAID
 - ARTWORKS AND PAYMENTS
 - OFFERS
 - ARTISTS AND ARTWORKS
- **Enhancements to introduce M:N relationship**
 - ARTWORKS can be one of the ARTFORMS. ARTISTS can offer any ARTWORK which is one among the supported ARTFORMS
 - An ARTIST can offer one or more ARTFORMS and one or more ARTIST can offer the same ARTFORMS
- **Designing**
 - EER DIAGRAM
 - Designing of entities ARTFORMS, ARTISTS AND ARTWORKS
 - Designing of Relationships IS_OF_TYPE, IS_OFFERED, OFFERS
 - Designing of entities CONTRACTS, STATE, CUSTOMERS AND PAYMENTS
 - Designing of Relationships BELONGS_TO and ARE_PAID
 - Designing of Relationships HAS, BELONGS_TO, BOUGHT_BY
 - RELATIONAL SCHEMA
 - Designing of Relations CONTRACTS, STATE, CUSTOMERS AND PAYMENTS
 - Primary Keys, Foreign Keys and other constraints between them
 - Designing of Relations ARTFORMS, ARTISTS AND ARTWORKS
 - Primary Keys, Foreign Keys, and other constraints between them



Relational Schema

ARTISTS

<u>ald</u>	name	birthDate	deathDate	commission	stateAb	street	city	zipCode
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ARTWORKS

<u>title</u>	formId	creationDate	acquisitionDate	price	artistId
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CONTRACTS

<u>artistId</u>	<u>id</u>	startDate	orgName	endDate	mRate
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CUSTOMERS

<u>cid</u>	name	saleDate	stateAb	city	street	zipcode
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STATE

<u>stateAb</u>	state
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PAYMENTS

<u>pId</u>	upfrontDate	finalDate	artTitle
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ARTFORMS

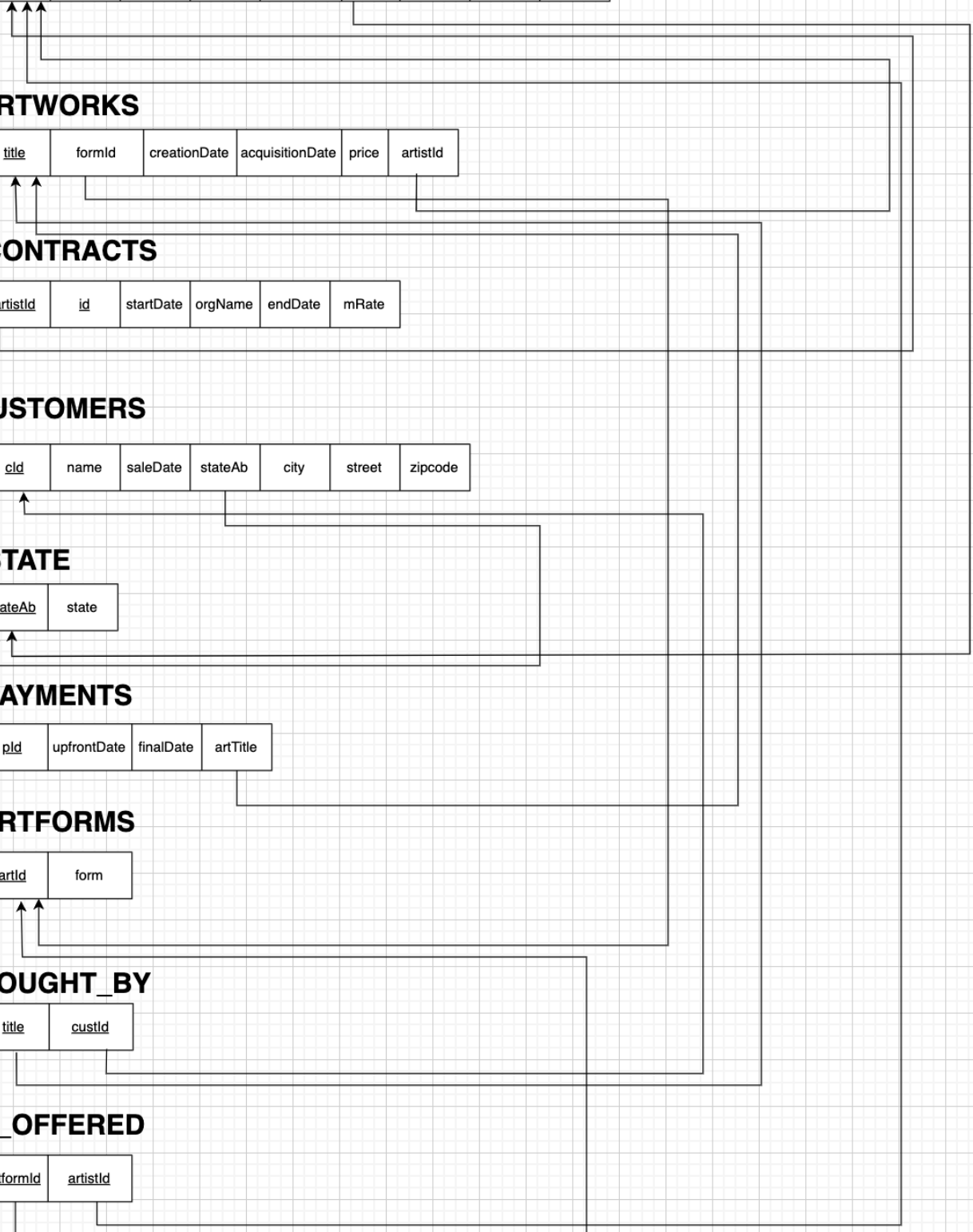
<u>artId</u>	form
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BOUGHT_BY

<u>title</u>	<u>custId</u>
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IS_OFFERED

<u>ArtformId</u>	<u>artistId</u>
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References

1. <https://app.diagrams.net/>
2. Text Book, Fundamentals of Database Systems, 7th Edition Rameez Elmasri, Shamkant Navathe