



Assignment 6

Ενδεικτική επίλυση

Εκφώνηση

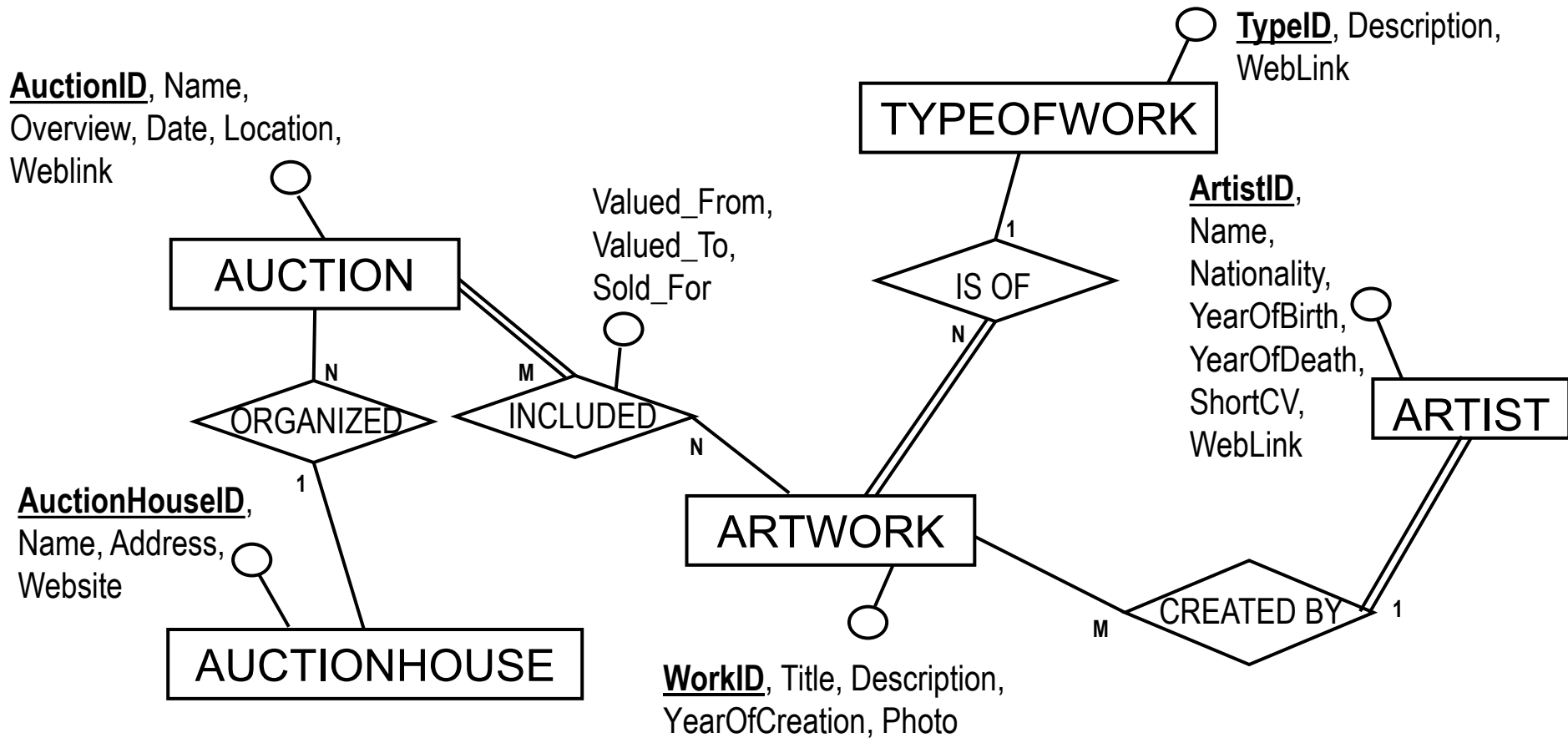
- ❖ Το assignment 6 αποσκοπεί να σας εξοικειώσει με την υλοποίηση σχεσιακών σχημάτων και την εισαγωγή δεδομένων με τη χρήση της Postgres. Ειδικότερα, με αναφορά στο απόσπασμα του script της εργασίας 5 και αφού γίνουν οι απαιτούμενες τροποποιήσεις έτσι ώστε να δηλώνονται οι πίνακες και οι περιορισμοί ακεραιότητας που προκύπτουν από την εφαρμογή της διαδικασίας των απορροφήσεων, θα πρέπει να ορίσετε μια σειρά δεδομένων και ακολούθως, να ορίσετε ένα επαρκή αριθμό εγγραφών/πλειάδων της αρεσκείας σας στο πίνακα INCLUDED

Βήματα

- ❖ Μετατροπή μοντέλου Ο-Σ σε σχήμα
- ❖ Εισαγωγή δεδομένων
- ❖ Έλεγχος ακεραιότητας
 - Πρωτεύοντα κλειδιά
 - Ξένα κλειδιά

Το βασικό μοντέλο Ο-Σ

❖ Η βασική έκδοση του μοντέλου



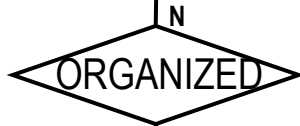
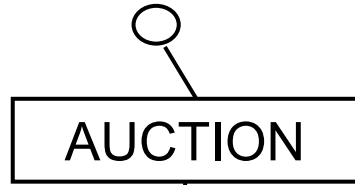


Σχεσιακό σχήμα

Από ΔΟΣ σε σχεσιακό σχήμα
εφαρμόζοντας απορροφήσεις

Ισχυρές οντότητες

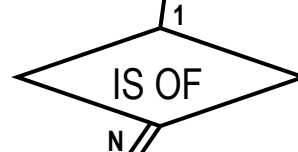
AuctionID, Name,
Overview, Date, Location,
Weblink



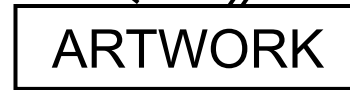
Valued_From,
Valued_To,
Sold_For



TypeID, Description,
WebLink



ArtistID,
Name,
Nationality,
YearOfBirth,
YearOfDeath,
ShortCV,
WebLink



AuctionHouseID,
Name, Address,
Website

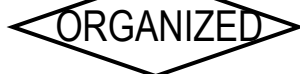


WorkID, Title, Description,
YearOfCreation, Photo

AUCTIONHOUSE (AuctionHouseID, Name, Address, Website)

Ισχυρές οντότητες (συν.)

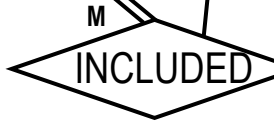
AuctionID, Name,
Overview, Date, Location,
Weblink



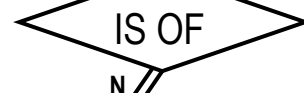
AuctionHouseID,
Name, Address,
Website



Valued_From,
Valued_To,
Sold_For

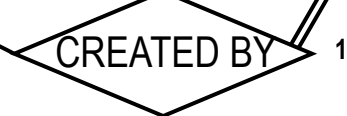


WorkID, Title, Description,
YearOfCreation, Photo



TypeID, Description,
Weblink

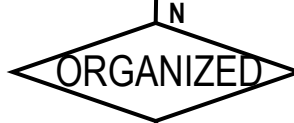
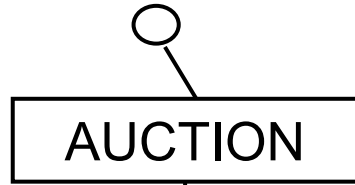
ArtistID,
Name,
Nationality,
YearOfBirth,
YearOfDeath,
ShortCV,
Weblink



AUCTIONHOUSE (AuctionHouseID, Name, Address, Website)
AUCTION (AuctionID, Name, Overview, Date, Location, Weblink)

Ισχυρές οντότητες (συν.)

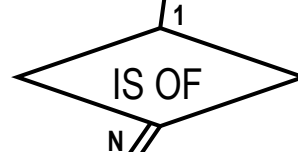
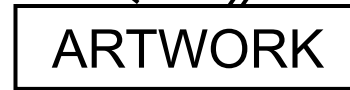
AuctionID, Name,
Overview, Date, Location,
Weblink



AuctionHouseID,
Name, Address,
Website

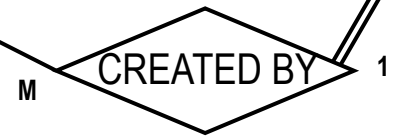


Valued_From,
Valued_To,
Sold_For



TypeID, Description,
Weblink

ArtistID,
Name,
Nationality,
YearOfBirth,
YearOfDeath,
ShortCV,
Weblink



WorkID, Title, Description,
YearOfCreation, Photo

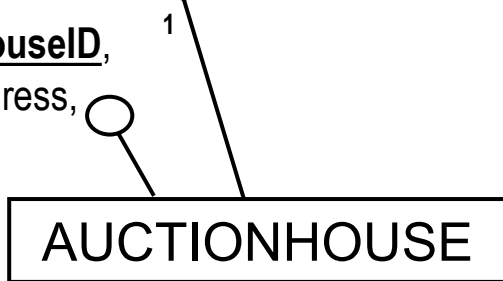
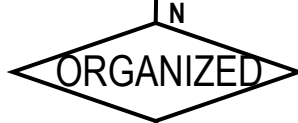
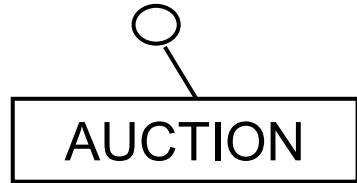
AUCTIONHOUSE (**AuctionHouseID**, Name, Address, Website)

AUCTION (**AuctionID**, Name, Overview, Date, Location, Weblink)

ARTIST (**ArtistID**, Name, Nationality, YearOfBirth, YearOfDeath, ShortCV, Weblink)

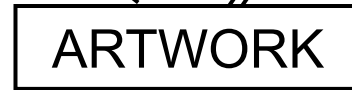
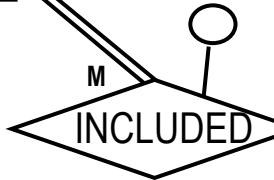
Ισχυρές οντότητες (συν.)

AuctionID, Name,
Overview, Date, Location,
Weblink

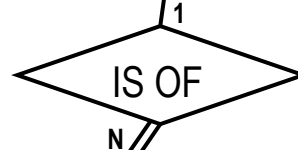


AuctionHouseID,
Name, Address,
Website

Valued_From,
Valued_To,
Sold_For

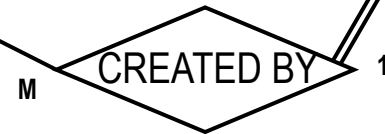


WorkID, Title, Description,
YearOfCreation, Photo



TypeID, Description,
WebLink

ArtistID,
Name,
Nationality,
YearOfBirth,
YearOfDeath,
ShortCV,
WebLink



AUCTIONHOUSE (AuctionHouseID, Name, Address, Website)

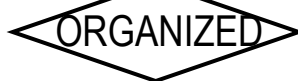
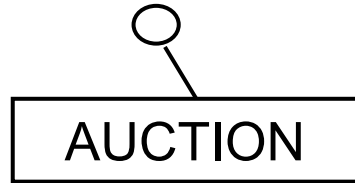
AUCTION (AuctionID, Name, Overview, Date, Location, Weblink)

ARTIST (ArtistID, Name, Nationality, YearOfBirth, YearOfDeath, ShortCV, WebLink)

TYPEOFWORK (TypeID, Name, WebLink)

Ισχυρές οντότητες (συν.)

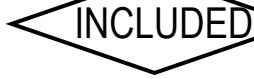
AuctionID, Name,
Overview, Date, Location,
WebLink



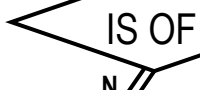
N

1

M



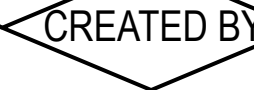
Valued_From,
Valued_To,
Sold_For



1

N

ArtistID,
Name,
Nationality,
YearOfBirth,
YearOfDeath,
ShortCV,
WebLink



M

1

WorkID, Title, Description,
YearOfCreation, Photo



AuctionHouseID,
Name, Address,
Website

AUCTIONHOUSE (**AuctionHouseID**, Name, Address, Website)

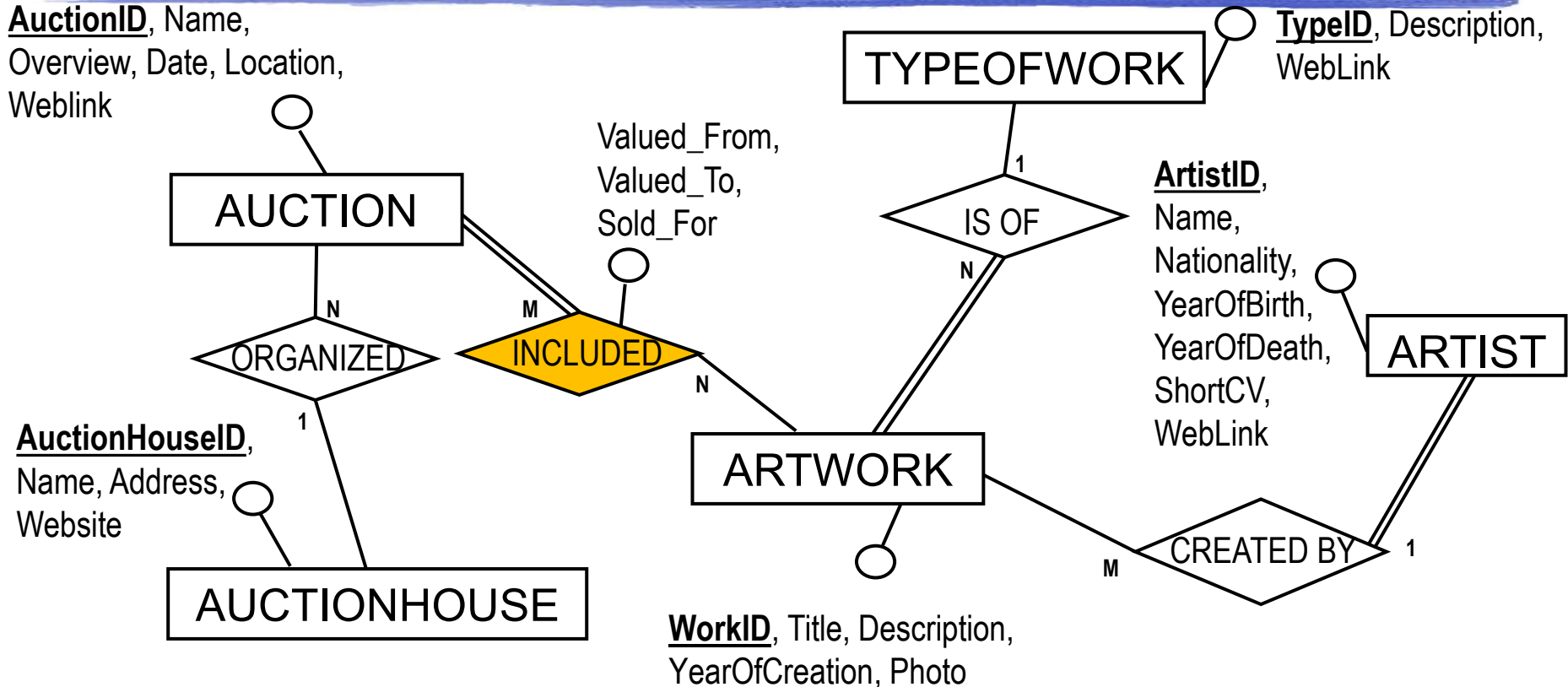
AUCTION (**AuctionID**, Name, Overview, Date, Location, WebLink)

ARTIST (**ArtistID**, Name, Nationality, YearOfBirth, YearOfDeath, ShortCV, WebLink)

TYPEOFWORK (**TypeID**, Name, WebLink)

ARTWORK (**ArtWorkID**, Name, Description, YearOfCreation, Photo)

M:N relationship



AUCTIONHOUSE (AuctionHouseID, Name, Address, Website)

AUCTION (AuctionID, Name, Overview, Date, Location, Weblink)

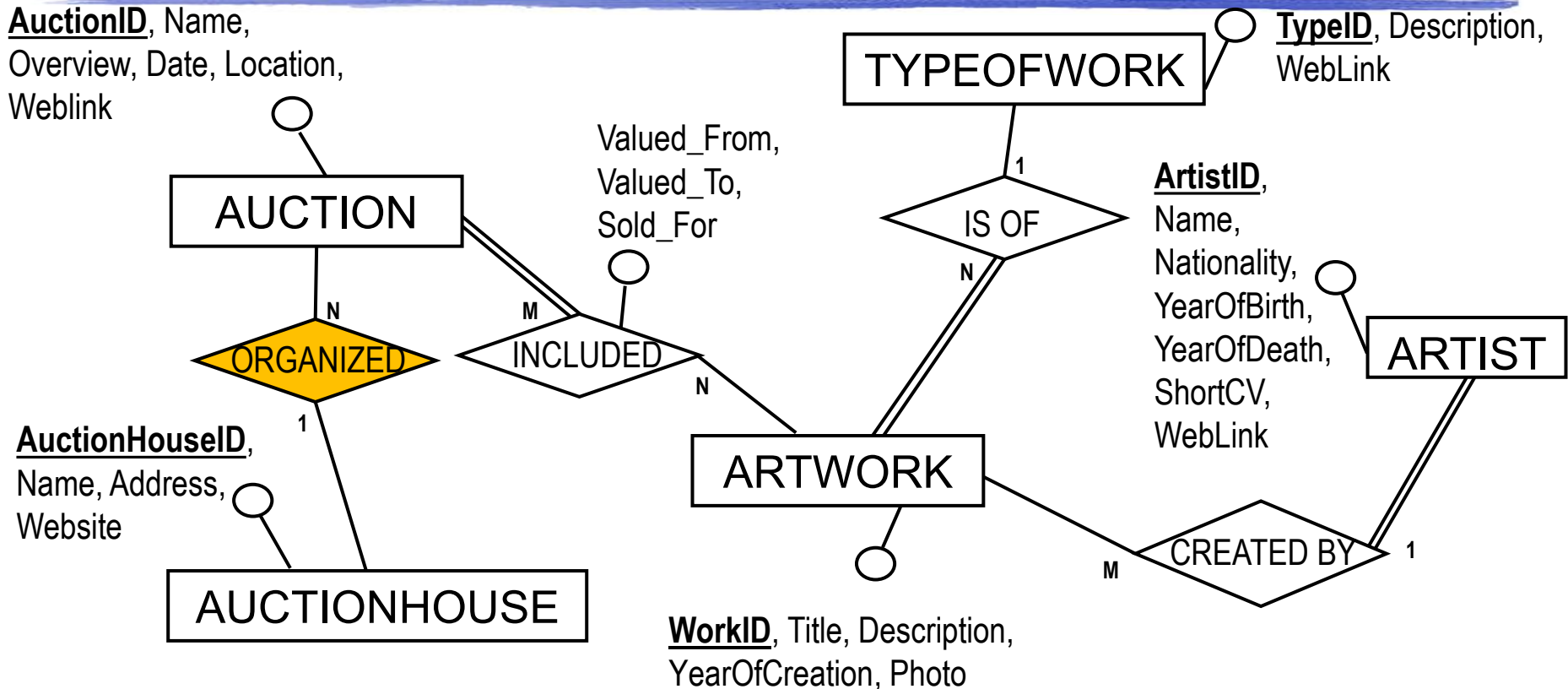
ARTIST (ArtistID, Name, Nationality, YearOfBirth, YearOfDeath, ShortCV, Weblink)

TYPEOFWORK (TypeID, Name, Weblink)

ARTWORK (ArtWorkID, Name, Description, YearOfCreation, Photo)

INCLUDED (AuctionID, ArtWorkID, ValuedFrom, ValuedTo, SoldFor)

1:N relationship



AUCTIONHOUSE (AuctionHouseID, Name, Address, Website)

AUCTION (AuctionID, Name, Overview, Date, Location, Weblink, *AuctionHouseID*)

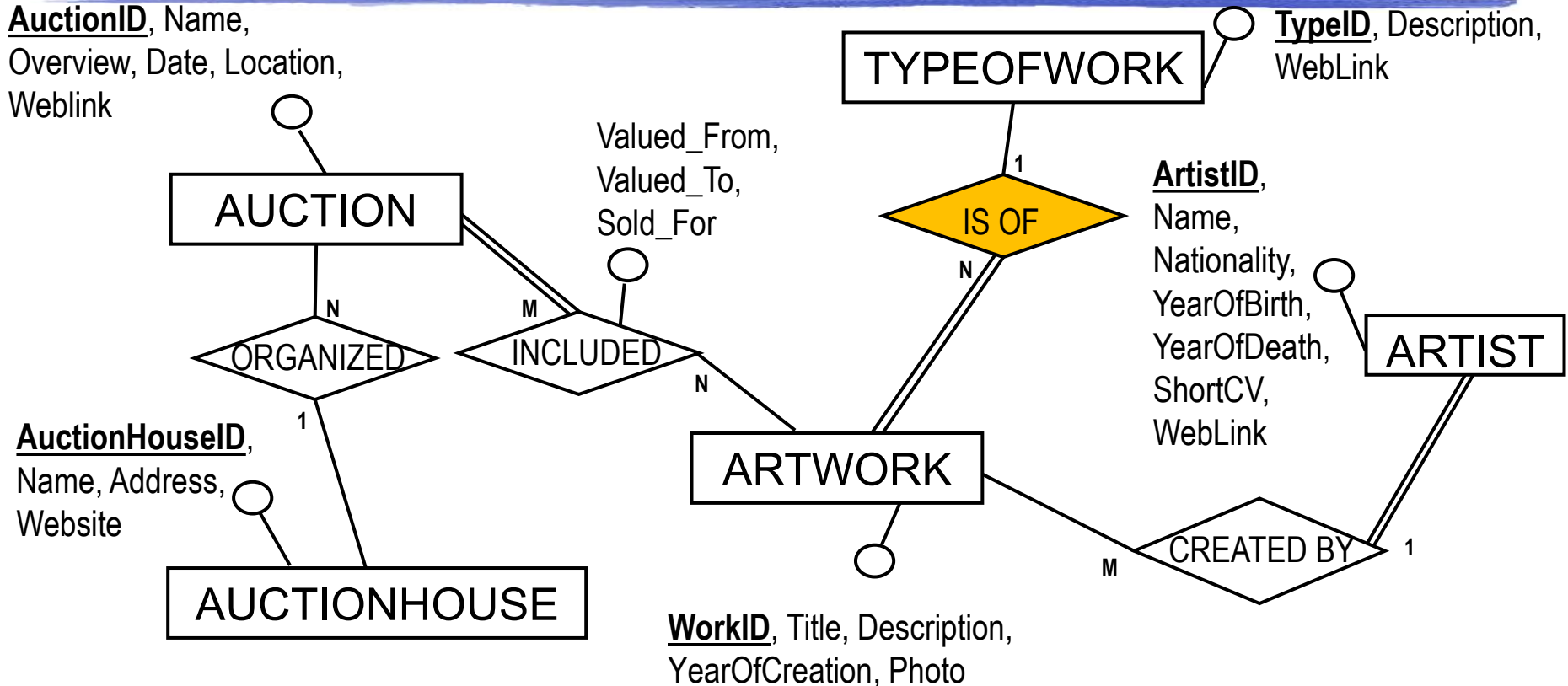
ARTIST (ArtistID, Name, Nationality, YearOfBirth, YearOfDeath, ShortCV, Weblink)

TYPEOFWORK (TypeID, Name, Weblink)

ARTWORK (ArtWorkID, Name, Description, YearOfCreation, Photo)

INCLUDED (AuctionID, ArtWorkID, ValuedFrom, ValuedTo, SoldFor)

1:N relationship (συν.)



AUCTIONHOUSE (AuctionHouseID, Name, Address, Website)

AUCTION (AuctionID, Name, Overview, Date, Location, Weblink, *AuctionHouseID*)

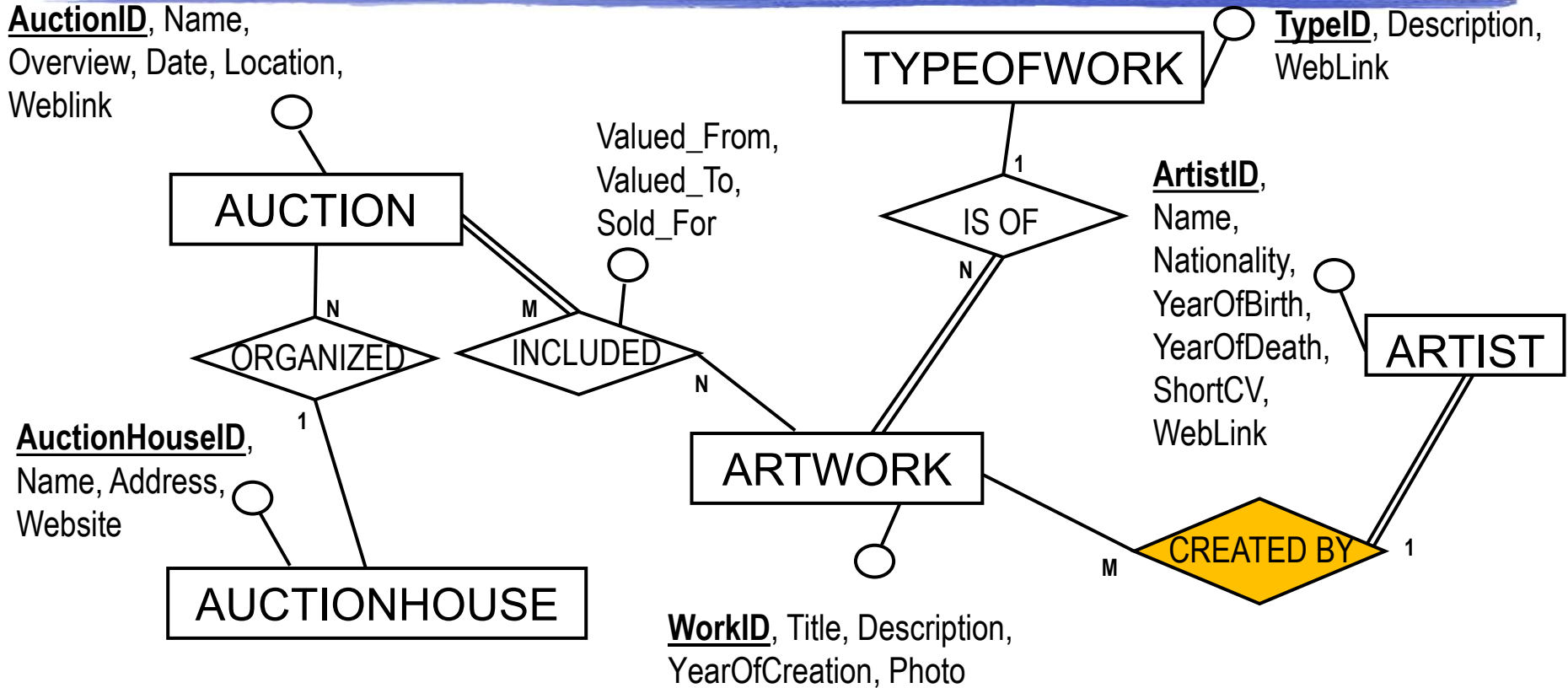
ARTIST (ArtistID, Name, Nationality, YearOfBirth, YearOfDeath, ShortCV, Weblink)

TYPEOFWORK (TypeID, Name, Weblink)

ARTWORK (ArtWorkID, Name, Description, YearOfCreation, Photo, *TypeID*)

INCLUDED (AuctionID, ArtWorkID, ValuedFrom, ValuedTo, SoldFor)

1:N relationship (συν.)



AUCTIONHOUSE (**AuctionHouseID**, Name, Address, Website)

AUCTION (**AuctionID**, Name, Overview, Date, Location, Weblink, *AuctionHouseID*)

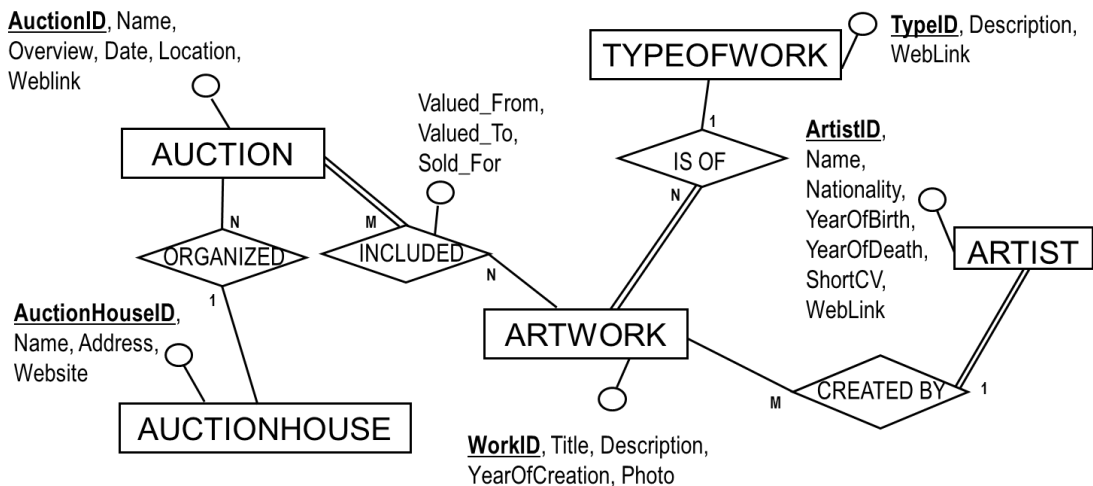
ARTIST (**ArtistID**, Name, Nationality, YearOfBirth, YearOfDeath, ShortCV, Weblink)

TYPEOFWORK (**TypeID**, Name, Weblink)

ARTWORK (**ArtWorkID**, Name, Description, YearOfCreation, Photo, *TypeID*, *ArtistID*)

INCLUDED (**AuctionID**, **ArtWorkID**, ValuedFrom, ValuedTo, SoldFor)

Script



```
CREATE TABLE AUCTIONHOUSE (
AuctionHouseID TEXT NOT NULL, Name TEXT NOT
NULL, Address TEXT, Website TEXT,
PRIMARY KEY(AuctionHouseID) );
```

```
CREATE TABLE AUCTION (
AuctionID TEXT NOT NULL, Name TEXT NOT NULL,
Overview TEXT, Date TEXT NOT NULL, Location TEXT,
WebLink TEXT, AuctionHouseID TEXT NOT NULL,
FOREIGN KEY(AuctionHouseID) REFERENCES
AUCTIONHOUSE (AuctionHouseID),
PRIMARY KEY(AuctionID));
```

```
CREATE TABLE ARTIST (
ArtistID TEXT NOT NULL, Name TEXT NOT NULL,
Nationality TEXT, YearOfBirth TEXT NOT NULL,
YearOfDeath TEXT, ShortCV TEXT, Weblink TEXT,
PRIMARY KEY (ArtistID));
```

```
CREATE TABLE TYPEOFWORK (
TypeID TEXT NOT NULL, Name TEXT NOT NULL,
Weblink TEXT, PRIMARY KEY (TypeID));
```

```
CREATE TABLE ARTWORK (
ArtWorkID TEXT NOT NULL, Name TEXT NOT NULL,
Description TEXT, YearOfCreation TEXT, Photo TEXT,
ArtistID TEXT, TypeID TEXT NOT NULL, FOREIGN
KEY(ArtistID) REFERENCES ARTIST(ArtistID),
FOREIGN KEY(TypeID) REFERENCES
TYPEOFWORK(TypeID), PRIMARY KEY(ArtWorkID));
```

```
CREATE TABLE INCLUDED (
AuctionID TEXT NOT NULL, ArtWorkID TEXT NOT
NULL, ValuedFrom INTEGER, ValuedTo INTEGER,
SoldFor INTEGER, FOREIGN KEY(AuctionID)
REFERENCES AUCTION(AuctionID), FOREIGN
KEY(ArtWorkID) REFERENCES ARTWORK(ArtWorkID),
PRIMARY KEY(AuctionID, ArtWorkID));
```