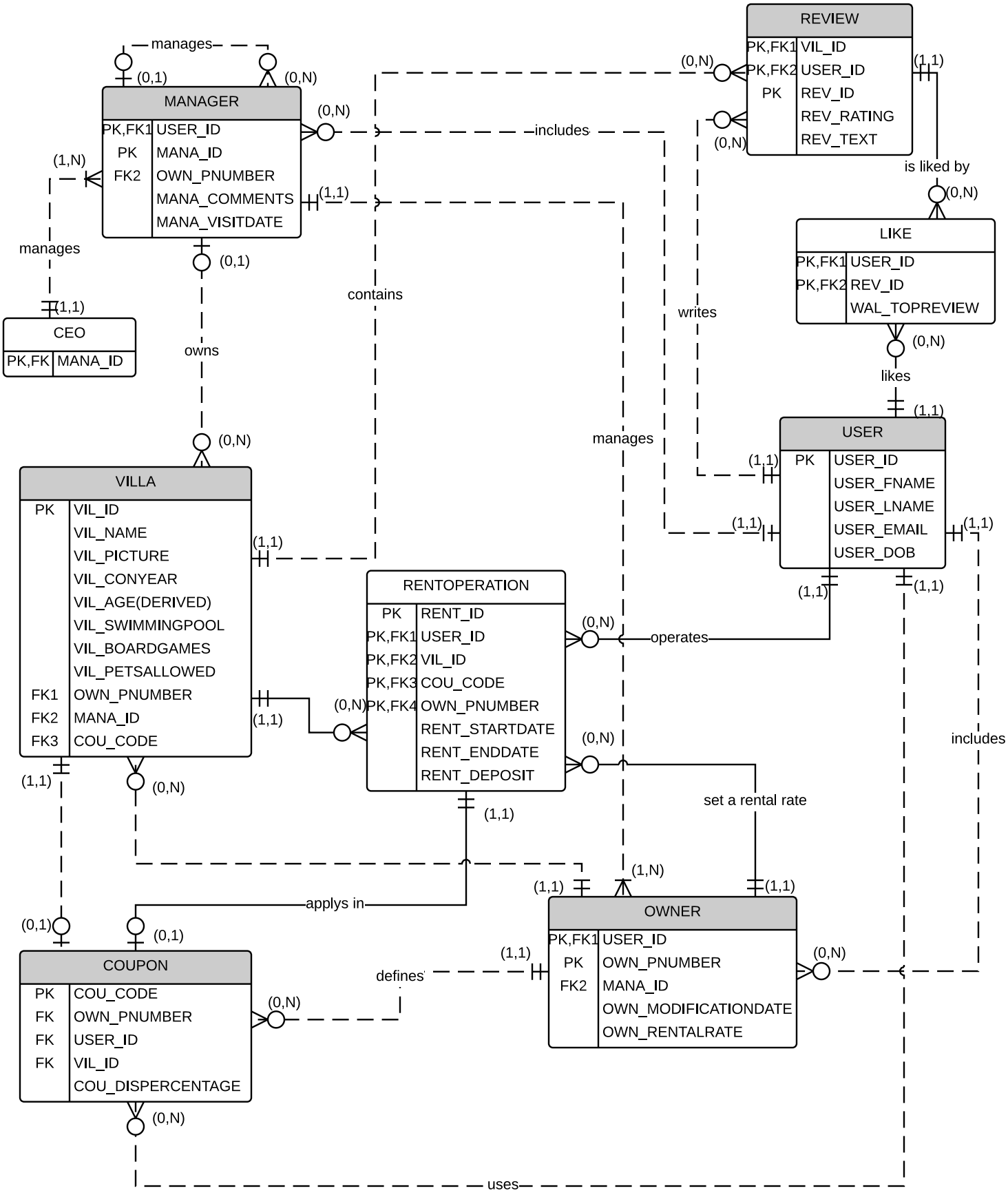
CS 585

HW1-PART1

NAME : DIAN REN

ID: 3983150002



REVIEW
PK,FK1 VIL_ID
PK,FK2 USER_ID
PK REV_ID
REV_RATING
REV_TEXT
MANAGER
PK,FK1 USER_ID
PK MANA_ID
FK2 OWN_PNUMBER
MANA_COMMENTS
MANA_VISITDATE
LIKE
PK,FK1 USER_ID
PK,FK2 REV_ID
WAL_TOPREVIEW
CEO
PK,FK MANA_ID
USER
PK USER_ID
USER_FNAME
USER_LNAME
USER_EMAIL
USER_DOB
VILLA
PK VIL_ID
VIL_NAME
VIL_PICTURE
VIL_CONYEAR
VIL_AGE(DERIVED)
VIL_SWIMMINGPOOL
VIL_BOARDGAMES
VIL_PETSALLOWED
FK1 OWN_PNUMBER
FK2 MANA_ID
FK3 COU_CODE
RENTOPERATION
PK RENT_ID
PK,FK1 USER_ID
PK,FK2 VIL_ID
PK,FK3 COU_CODE
PK,FK4 OWN_PNUMBER
RENT_STARTDATE
RENT_ENDDATE
RENT_DEPOSIT
OWNER
PK,FK1 USER_ID
PK OWN_PNUMBER
FK2 MANA_ID
OWN_MODIFICATIONDATE
OWN_RENTALRATE
COUPON
PK COU_CODE
FK OWN_PNUMBER
FK USER_ID
FK VIL_ID
COU_DISPERCENTAGE
manages
includes
is liked by
contains
writes
owns
likes
manages
operates
set a rental rate
applys in
defines
uses
(0,1)
(0,N)
(1,1)
(1,N)

ASSUMPTION

1. A user can rent many villas and a villa only can be rented by one user.
2. A user can write many reviews and a review only can be wrote by one user.
3. A review can be liked by many users and a user can like many reviews.
4. A review can only about one villa and a villa can have many reviews.
5. A owner must be a user and not all users are owners.
6. A owner can define many coupons and a coupon only can be defined by one owner.
7. A user can use many coupons and a coupon only can be used by one user.
8. A villa can have one coupon or do not have any coupon. A coupon only can be used in one villa.
9. A manager can manage many owners and a owner can only be managed by one manager.
10. A manager is a user and not all users are managers.
11. A manager can have many villas and not all managers have villas. Some managers do not have any villa.
12. A rent operation can only be operated by one user and one user can operate many rent operations.
13. A rent operation can only related one villa and a villa can be in many rent operations in different time.
14. A rent operation can use at most one coupon and one coupon can only be used in one rent operation.
15. A rent operation includes the villa's lease. The rental rete in one rent operation can only be set by one owner. An owner can set many rental rates in different rent operations.

SUBCLASS

1. OWNER is a subclass of USER.
2. MANAGER is a subclass of USER.
3. CEO is a subclass of MANAGER.