CSCI 6950 – Lab 3 – ER Modeling

7.1 Consider the SolMaris database we have in SQLDeveloper. Build the ER schema for this database using the data modeling tool Oracle SQLDeveloper Data Modeler or ERAssistant.



Graphical user interface, text, application

Description automatically generated with medium confidence

**Entities**

condo\_unit : REGULAR ENTITY

CONDO\_ID : [PK] ATTRIBUTE Type:NUMERIC Length=4 Width=

UNIT\_NUM : [ALLOW NULL] ATTRIBUTE Type:CHAR Length=3

SQR\_FT : [ALLOW NULL] ATTRIBUTE Type:NUMERIC Length=5 Width=

BDRMS : [ALLOW NULL] ATTRIBUTE Type:NUMERIC Length=2 Width=

BATHS : [ALLOW NULL] ATTRIBUTE Type:NUMERIC Length=2 Width=

CONDO\_FEE : [ALLOW NULL] ATTRIBUTE Type:NUMERIC Length=2 Width=6

OWNER : REGULAR ENTITY

OWNER\_NUM : [PK] ATTRIBUTE Type:CHAR Length=5

FIRST\_NAME : [ALLOW NULL] ATTRIBUTE Type:CHAR Length=25

LAST\_NAME : [ALLOW NULL] ATTRIBUTE Type:CHAR Length=25

ADDRESS : [ALLOW NULL] ATTRIBUTE Type:CHAR Length=25

CITY : [ALLOW NULL] ATTRIBUTE Type:CHAR Length=25

STATE : [ALLOW NULL] ATTRIBUTE Type:CHAR Length=2

POSTAL\_CODE : [ALLOW NULL] ATTRIBUTE Type:CHAR Length=5

SERVICE\_REQUEST : REGULAR ENTITY

SERVICE\_ID : [PK] ATTRIBUTE Type:NUMERIC Length=4 Width=

DESCRIPTION : [ALLOW NULL] ATTRIBUTE Type:CHAR Length=255

STATUS : ATTRIBUTE Type:CHAR Length=255

EST\_HOURS : [ALLOW NULL] ATTRIBUTE Type:NUMERIC Length=2 Width=4

SPENT\_HOURS : [ALLOW NULL] ATTRIBUTE Type:NUMERIC Length=2 Width=4

NEXT\_SERVICE\_DATE : [ALLOW NULL] ATTRIBUTE Type:DATE

Servuce\_Category : REGULAR ENTITY

CATEGORY\_NUM : [PK] ATTRIBUTE Type:NUMERIC Length=0 Width=4

CATEGORY\_DESCRIPTION : [ALLOW NULL] ATTRIBUTE Type:CHAR Length=35

LOCATION : REGULAR ENTITY

LOCATION\_NUM : [PK] ATTRIBUTE Type:NUMERIC Length=0 Width=2

LOCATION\_NAME : [ALLOW NULL] ATTRIBUTE Type:CHAR Length=25

ADDRESS : [ALLOW NULL] ATTRIBUTE Type:CHAR Length=25

CITY : [ALLOW NULL] ATTRIBUTE Type:CHAR Length=25

STATE : [ALLOW NULL] ATTRIBUTE Type:CHAR Length=2

POSTAL\_CODE : [ALLOW NULL] ATTRIBUTE Type:CHAR Length=5

**Relationships**

owns : REGULAR RELATIONSHIP OWNER ONE MANDATORY to condo\_unit MANY MANDATORY

LOCATED : REGULAR RELATIONSHIP condo\_unit MANY MANDATORY to LOCATION ONE OPTIONAL

REQUESTS : REGULAR RELATIONSHIP condo\_unit ONE MANDATORY to SERVICE\_REQUEST MANY OPTIONAL

HAS : REGULAR RELATIONSHIP SERVICE\_REQUEST MANY OPTIONAL to Servuce\_Category ONE MANDATORY

7.2 Consider the Company database we import in SQLDeveloperusing the attached scripts. Build the ER schema for this database using the data modeling tool Oracle SQLDeveloper Data Modeler or ERAssistant.



Graphical user interface, text, application, email

Description automatically generated

**Entities**

Employee : REGULAR ENTITY

fname : ATTRIBUTE Type:NO DATATYPE

minit : ATTRIBUTE Type:NO DATATYPE

lname : ATTRIBUTE Type:NO DATATYPE

ssn : [PK] [ALLOW NULL] ATTRIBUTE Type:NUMERIC Length=0 Width=10

bdate : ATTRIBUTE Type:NO DATATYPE

address : ATTRIBUTE Type:NO DATATYPE

sex : ATTRIBUTE Type:NO DATATYPE

salary : ATTRIBUTE Type:NO DATATYPE

superssn : ATTRIBUTE Type:NO DATATYPE

dno : ATTRIBUTE Type:NO DATATYPE

department : REGULAR ENTITY

dname : [ALLOW NULL] ATTRIBUTE Type:NO DATATYPE

dnumber : [PK] ATTRIBUTE Type:NO DATATYPE

mgrssn : ATTRIBUTE Type:NO DATATYPE

mgrstartdate : ATTRIBUTE Type:NO DATATYPE

dept\_locations : REGULAR ENTITY

dlocation : [PK] ATTRIBUTE Type:VARCHAR Length=15

dnumber : [PK] [ALLOW NULL] ATTRIBUTE Type:NUMERIC Length= Width=4

project : REGULAR ENTITY

pname : ATTRIBUTE Type:VARCHAR Length=25

pnumber : [PK] ATTRIBUTE Type:NO DATATYPE

plocation : ATTRIBUTE Type:VARCHAR Length=15

dnum : ATTRIBUTE Type:NUMERIC Length=4 Width=

works\_on : WEAK ENTITY

hours : ATTRIBUTE Type:NUMERIC Length=1 Width=4

essn : [PK] ATTRIBUTE Type:CHAR Length=9

pno : [PK] [ALLOW NULL] ATTRIBUTE Type:NUMERIC Length= Width=4

pnumber : [PK] ATTRIBUTE (from project) Type:NO DATATYPE

dependent : WEAK ENTITY

dependent\_name : [PK] ATTRIBUTE Type:VARCHAR Length=15

sex : ATTRIBUTE Type:CHAR Length=

bdate : ATTRIBUTE Type:DATE

relationship : ATTRIBUTE Type:VARCHAR Length=8

ssn : [PK] ATTRIBUTE (from Employee) Type:NUMERIC Length=0 Width=10

**Relationships**

Employee\_department\_relationship : REGULAR RELATIONSHIP Employee ONE MANDATORY to department MANY OPTIONAL

Located\_at : REGULAR RELATIONSHIP department ONE MANDATORY to dept\_locations MANY MANDATORY

: REGULAR RELATIONSHIP

Employee\_profile : IDENTIFYING RELATIONSHIP Employee ONE MANDATORY to dependent MANY OPTIONAL

Employee\_working\_hours : REGULAR RELATIONSHIP Employee ONE MANDATORY to works\_on MANY MANDATORY

Working\_on\_project : IDENTIFYING RELATIONSHIP works\_on MANY MANDATORY to project ONE MANDATORY

Department\_project\_relation : REGULAR RELATIONSHIP department ONE MANDATORY to project MANY MANDATORY

Employee\_self\_relation : REGULAR RELATIONSHIP Employee MANY OPTIONAL to Employee ONE MANDATORY

Emploee\_department : REGULAR RELATIONSHIP department MANY MANDATORY to Employee ONE MANDATORY