

ART GALLERY

DATABASE

MANAGEMENT

SYSTEM.

DBMS assignment-1

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1602-18-737-089

ABSTRACT

(For art gallery database management system)

An art gallery or art museum is a building or space for the exhibition of art, usually visual art. The gallery database keeps the basic information of the artworks in the gallery and the details of the artists. The core of this product is a database with a schema that contains that captures all the information that the gallery needs to keep. The specific information that the gallery keeps includes the data about the artist ie his/name, birthplace, age and the style of art. For each piece of art the artist, the year it was made, its unique title, its type of art and its price will be saved. Finally, the gallery keeps information about customer, for each customer the gallery keeps a unique Id, address, total amount of money spent in the gallery etc.

Requirement Analysis

ENTITY 1:

Entity name: [ARTIST]

Attributes, Data types:

1. Name(Primary key)_{VARCHAR2}
2. Birthplace_{VARCHAR2}
3. Age_{NUMBER}
4. Style of art_{VARCHAR2}

ENTITY 2:

Entity name:[ARTWORK]

Attributes, Data types:

1. Art name(Primary key)_{VARCHAR2}
2. Patent_ID(Primary key)_{VARCHAR2}
3. Cost_{NUMBER}
4. Type of Art_{VARCHAR2}

ENTITY 3:

Entity name:[CUSTOMER]

Attributes, Data types:

1. Name_{VARCHAR2}
2. C_ID (Primary key)_{VARCHAR}

3. *Address_{VARCHAR2}*
4. *Total amount spent_{NUMBER}*

RELATIONSHIP 1:

Relation name: [CREATED]

Attributes, Data types:

1. *Name (Foreign key)_{VARCHAR2}*
2. *Patent_id (Foreign key)_{VARCHAR2}*
3. *Art Name (Foreign key)_{VARCHAR2}*

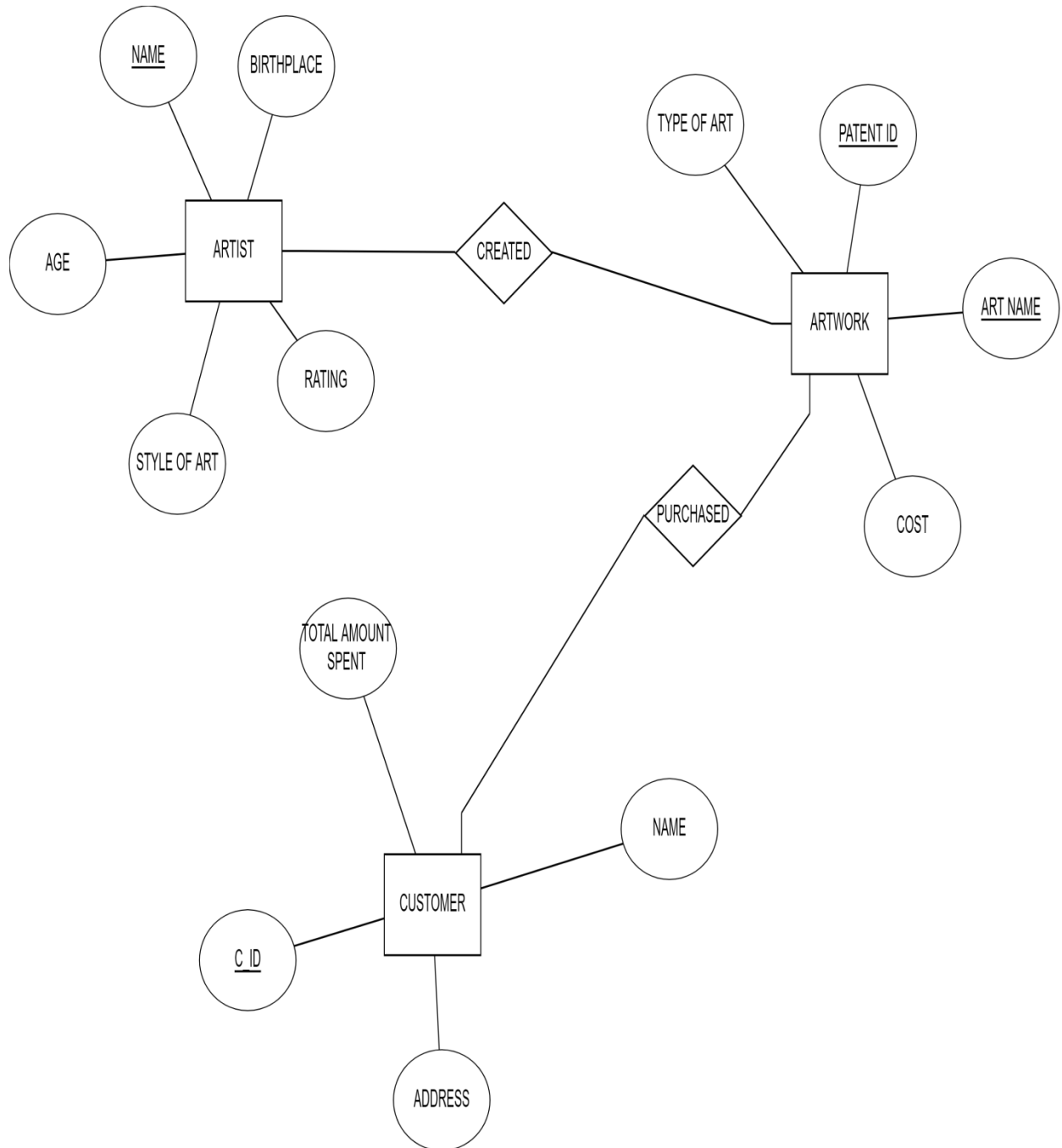
RELATIONSHIP 2:

Relation name: [PURCHASED]

Attributes:

1. *Art Name (Foreign key)_{VARCHAR2}*
2. *Patent_ID (Foreign key)_{VARCHAR2}*
3. *C_ID (Foreign key)_{VARCHAR2}*

ER DIAGRAM (entity-relation)



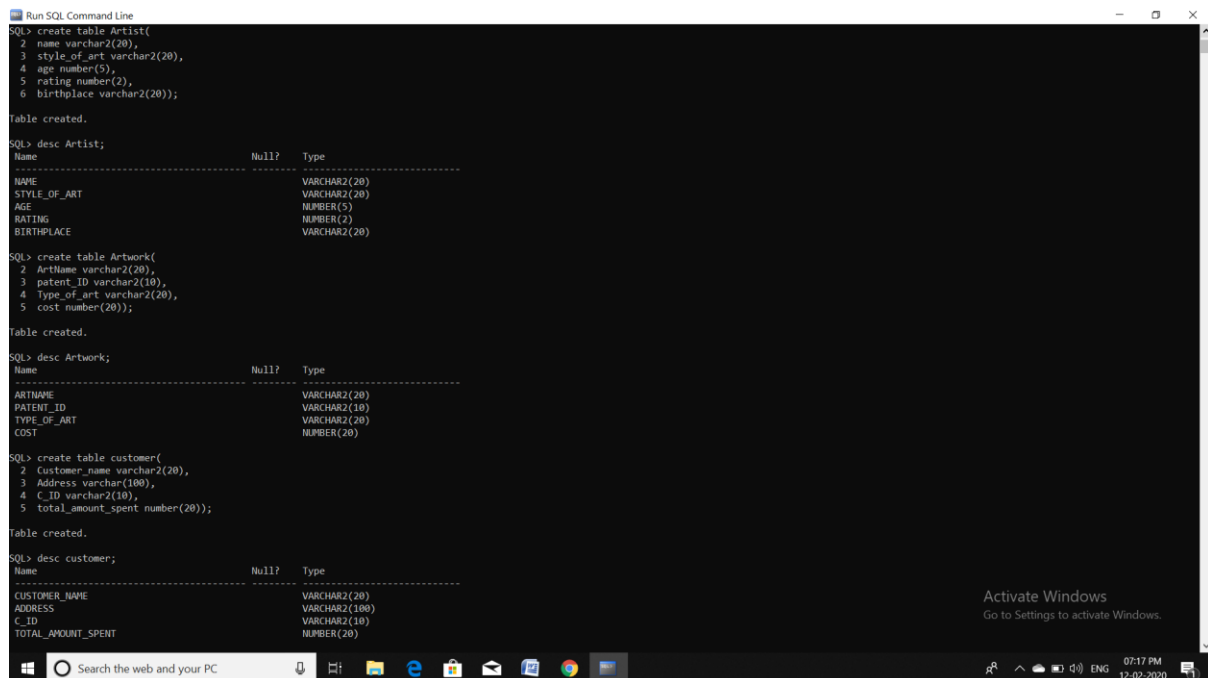
DDL, DML COMANDS

-CREATE

-ALTER

-DROP

-INSERT



```
SQL> create table Artist(  
2 name varchar2(20),  
3 style_of_art varchar2(20),  
4 age number(5),  
5 rating number(2),  
6 birthplace varchar2(20));  
  
Table created.  
  
SQL> desc Artist;  
Name Null? Type  
-----  
NAME VARCHAR2(20)  
STYLE_OF_ART VARCHAR2(20)  
AGE NUMBER(5)  
RATING NUMBER(2)  
BIRTHPLACE VARCHAR2(20)  
  
SQL> create table Artwork(  
2 ArtName varchar2(20),  
3 patent_ID varchar2(10),  
4 Type_of_art varchar2(20),  
5 cost number(20));  
  
Table created.  
  
SQL> desc Artwork;  
Name Null? Type  
-----  
ARTNAME VARCHAR2(20)  
PATENT_ID VARCHAR2(10)  
TYPE_OF_ART VARCHAR2(20)  
COST NUMBER(20)  
  
SQL> create table customer(  
2 Customer_name varchar2(20),  
3 Address varchar(100),  
4 C_ID varchar2(10),  
5 total_amount_spent number(20));  
  
Table created.  
  
SQL> desc customer;  
Name Null? Type  
-----  
CUSTOMER_NAME VARCHAR2(20)  
ADDRESS VARCHAR2(100)  
C_ID VARCHAR2(10)  
TOTAL_AMOUNT_SPENT NUMBER(20)
```

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```
Run SQL Command Line

SQL> create table creates(
  2 name varchar2(20),
  3 ArtName varchar2(20),
  4 year number(4),
  5 patent_ID varchar2(10));

Table created.

SQL> desc creates;
-----
Name                               Null?   Type
-----
NAME                               VARCHAR2(20)
ARTNAME                            VARCHAR2(20)
YEAR                               NUMBER(4)
PATENT_ID                          VARCHAR2(10)

SQL> create table purchases(
  2 ArtName varchar2(20),
  3 patent_ID varchar2(10),
  4 c_ID varchar2(10),
  5 cost number(20));

Table created.

SQL> desc purchases;
-----
Name                               Null?   Type
-----
ARTNAME                            VARCHAR2(20)
PATENT_ID                          VARCHAR2(10)
C_ID                               VARCHAR2(10)
COST                               NUMBER(20)

SQL> _
```

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```
Run SQL Command Line

SQL> drop table created;

Table dropped.

SQL> rename creates to created;

Table renamed.

SQL> rename purchases to purchased;

Table renamed.

SQL> alter table purchased add(number_of_pieces number(3,1));

Table altered.

SQL> alter table purchased modify(patent_ID number(20));

Table altered.

SQL> alter table artist rename column name to artist_name;

Table altered.

SQL> desc artist;
-----
Name                               Null?   Type
-----
ARTIST_NAME                        VARCHAR2(20)
STYLE_OF_ART                       VARCHAR2(20)
AGE                               NUMBER(5)
RATING                             NUMBER(2)
BIRTHPLACE                        VARCHAR2(20)

SQL> _
```

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```

Run SQL Command Line

SQL> insert into artist (artist_name,style_of_art,dob,birthplace)values('amrita sher-gil','self-portrait','30-1-1913','budapest');
Insert into artist (artist_name,style_of_art,dob,birthplace)values('amrita sher-gil','self-portrait','30-1-1913','budapest')
ERROR at line 1:
ORA-01843: not a valid month

SQL> insert into artist (artist_name,style_of_art,dob,birthplace)values('amrita sher-gil','self-portrait','1-30-1913','budapest');
insert into artist (artist_name,style_of_art,dob,birthplace)values('amrita sher-gil','self-portrait','1-30-1913','budapest')
ERROR at line 1:
ORA-01843: not a valid month

SQL> insert into artist (artist_name,style_of_art,dob,birthplace)values('amrita sher-gil','self-portrait','30-jan-1913','budapest');
1 row created.

SQL> insert into artist (artist_name,style_of_art,dob,birthplace)values('abindranath tagore','depiction','7-aug-1871','jorasanko');
1 row created.

SQL> insert into artist (artist_name,style_of_art,dob,birthplace)values('raja ravi verma','depiction','29-apr-1848','killamnoor');
ERROR:
ORA-01756: quoted string not properly terminated

SQL> insert into artist (artist_name,style_of_art,dob,birthplace)values('raja ravi verma','depiction','29-apr-1848','killamnoor');
1 row created.

SQL> insert into artist (artist_name,style_of_art,dob,birthplace)values('m.f hussain','depiction','17-sep-1915','pandharpur');
ERROR:
ORA-01756: quoted string not properly terminated

SQL> insert into artist (artist_name,style_of_art,dob,birthplace)values('m.f hussain','depiction','17-sep-1915','pandharpur');
1 row created.

SQL>

```

```

Run SQL Command Line

alter table artwork add(dimentions varchar2(30))
ERROR at line 1:
ORA-01430: column being added already exists in table

SQL> alter table artist modify(dimentions number(30));
alter table artist modify(dimentions number(30))
ERROR at line 1:
ORA-00904: "DIMENTIONS": invalid identifier

SQL> alter table artwork modify(dimentions number(30));
alter table artwork modify(dimentions number(30))
ERROR at line 1:
ORA-01439: column to be modified must be empty to change datatype

SQL> insert into artwork(artname,patent_id,type_of_art,dimentions,cost)values('bharat mata','020','painting','10 1\2*6 cm',1300);
insert into artwork(artname,patent_id,type_of_art,dimentions,cost)values('bharat mata','020','painting','10 1\2*6 cm',1300)
ERROR at line 1:
ORA-12899: value too large for column "PRANATHI"."ARTWORK"."DIMENTIONS"
(actual: 11, maximum: 10)

SQL> insert into artwork(artname,patent_id,type_of_art,dimentions,cost)values('bharat mata','020','painting','10*6 cm',1300);
1 row created.

SQL> insert into artwork(artname,patent_id,type_of_art,dimentions,cost)values('shakuntala','030','painting','71.1*51 cm',16000);
1 row created.

SQL> insert into artwork(artname,patent_id,type_of_art,dimentions,cost)values('horses','040','painting','147*94 cm',36000);
1 row created.

SQL> select * from artwork;

ARTNAME      PATENT_ID  TYPE_OF_ART  COST DIMENTIONS
-----
pita         101        painting    20000 54*82.2 cm
bharat mata  020        painting    1300  10*6 cm
shakuntala   030        painting    16000 71.1*51 cm
horses       040        painting    36000 147*94 cm

```


INTRIGRITY CONSTRAINTS (primary key,

foreign key)

```
Run SQL Command Line

SQL> alter table created add foreign key(patent_id) references artwork;
Table altered.

SQL> alter table created add foreign key(artist_name) references artist;
alter table created add foreign key(artist_name) references artist
      *
ERROR at line 1:
ORA-00904: "ARTIST_NAME": invalid identifier

SQL> alter table created add foreign key(artist_name) references artist;
alter table created add foreign key(artist_name) references artist
      *
ERROR at line 1:
ORA-00904: "ARTIST_NAME": invalid identifier

SQL> desc artist;
      Name                               Null?    Type
-----
ARTIST_NAME                             NOT NULL VARCHAR2(20)
STYLE_OF_ART                             VARCHAR2(20)
DOB                                       DATE
BIRTHPLACE                              VARCHAR2(20)

SQL> desc created;
      Name                               Null?    Type
-----
NAME                                     VARCHAR2(20)
ARTNAME                                 VARCHAR2(20)
YEAR                                    NUMBER(4)
PATENT_ID                               VARCHAR2(10)

SQL> alter table add(artist varchar2(20));
alter table add(artist varchar2(20))
      *
ERROR at line 1:
ORA-00903: invalid table name

SQL> alter table created add column(artist varchar2(20));
alter table created add column(artist varchar2(20))
      *
ERROR at line 1:
ORA-00904: : invalid identifier
```

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```
Run SQL Command Line
1 row created.
SQL> insert into customer(customer_name,address,c_id,total_amount_spent)values('sudheer','67-240 army colony, pondicherry','499',20000);
1 row created.
SQL> select * from artwork;
ARTNAME          PATENT_ID  TYPE_OF_ART  COST DIMENTIONS
-----
rita              101        painting     20000 54*92.2 cm
sharat mata      020        painting     1300 10*6 cm
shakuntala       030        painting     16000 71.1*51 cm
horses           040        painting     36000 147*94 cm
SQL> desc created;
Name                               Null?   Type
-----
NAME                               VARCHAR2(20)
ARTNAME                            VARCHAR2(20)
YEAR                               NUMBER(4)
PATENT_ID                          VARCHAR2(10)
SQL> alter table artist add primary key(artist_name);
Table altered.
SQL> alter table artwork add primary key(art_name);
alter table artwork add primary key(art_name)
*
ERROR at line 1:
ORA-00904: "ART_NAME": invalid identifier
SQL> alter table artwork add primary key(artname);
Table altered.
SQL> alter table artwork add primary key(patent_id);
alter table artwork add primary key(patent_id)
*
ERROR at line 1:
ORA-02250: table can have only one primary key
SQL> alter table created add foreign key(patent_id);
alter table created add foreign key(patent_id)
*
ERROR at line 1:
```

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