



UGANDA CHRISTIAN UNIVERSITY

A Centre of Excellence in the Heart of Africa

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Faculty/School: SCIENCE AND TECHNOLOGY

Course: BACHELORS OF SCIENCE IN COMPUTER SCIENCE
(BSCS1)

LECTURER: Mr. *Simon Fred Lubambo*

COURSE UNIT: Database Applications and Development

Due: Friday, 3 June 2022

Assignment 1

Problem 1

Solution 1

First, we shall design the entities and relationships.

Employees work in departments

for each department is managed by an employee

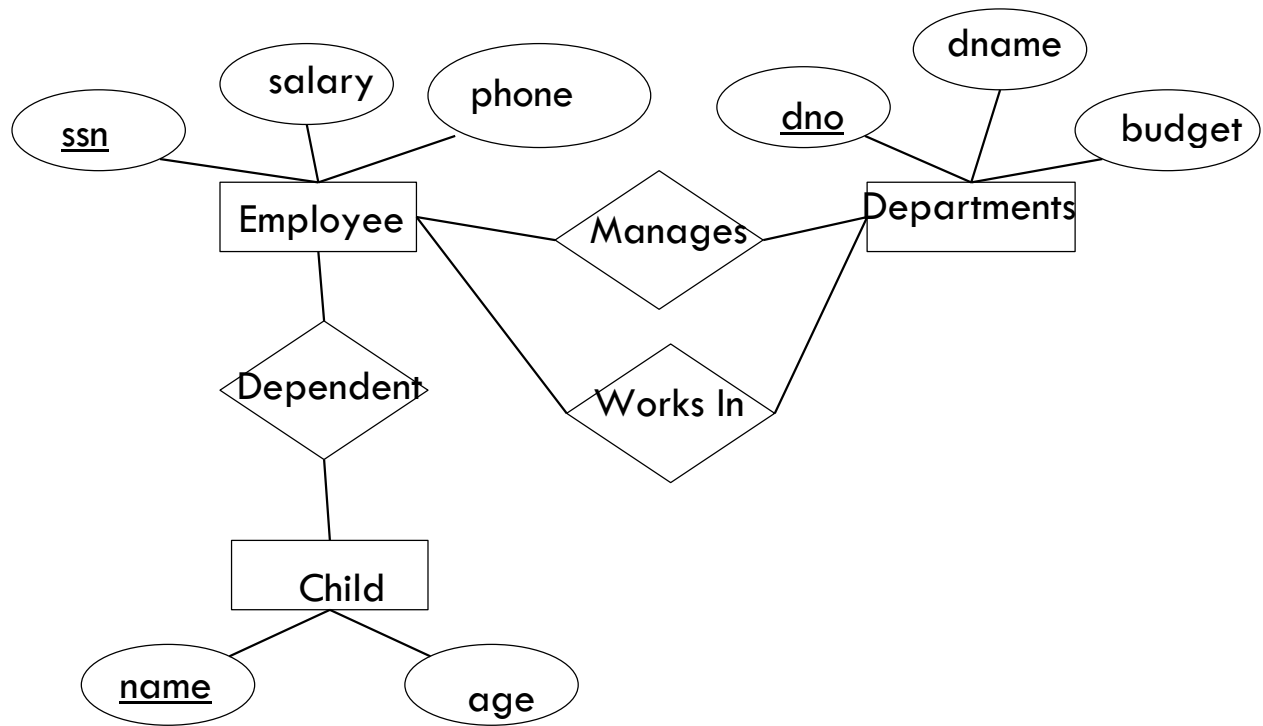
a child must be identified uniquely by name when the parent (who is an employee;

assume that only one

parent works for the company) is known.

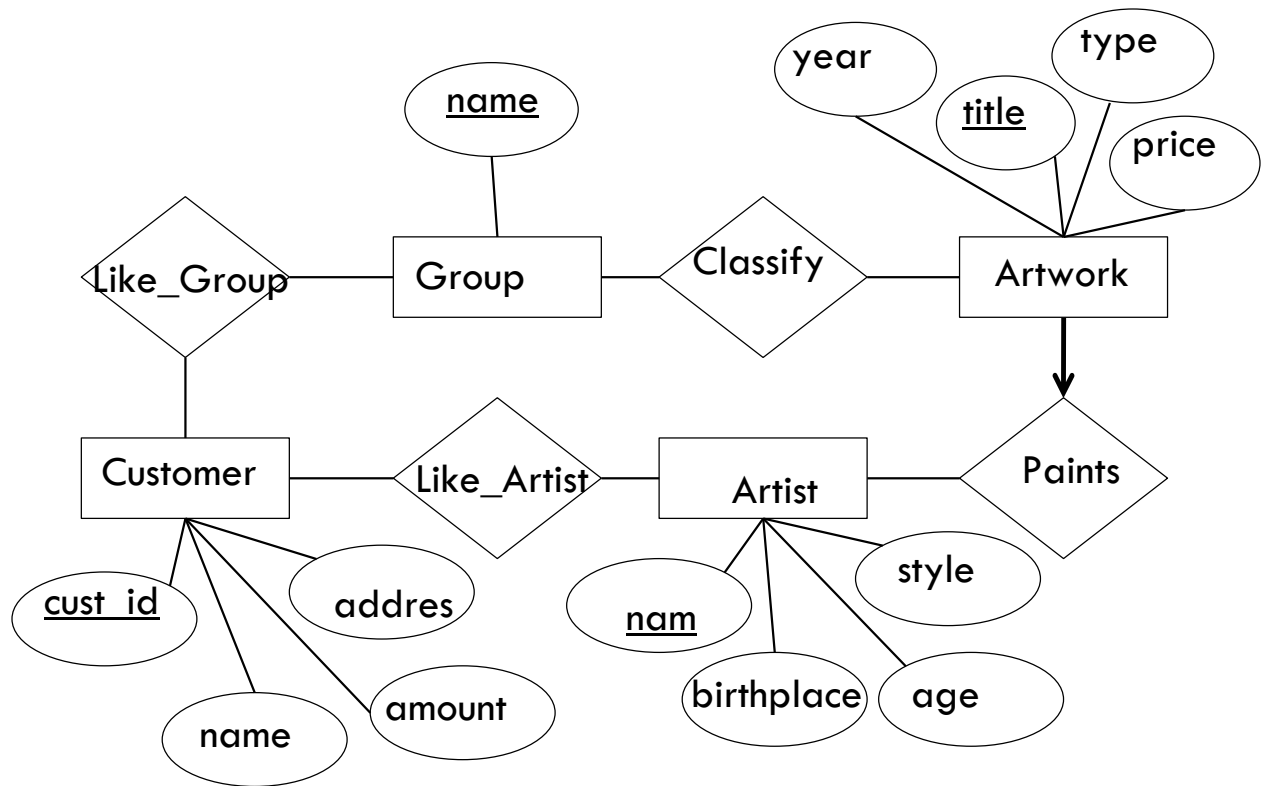
We are not interested in information about a child once the parent leaves the company.

Solution to problem 1



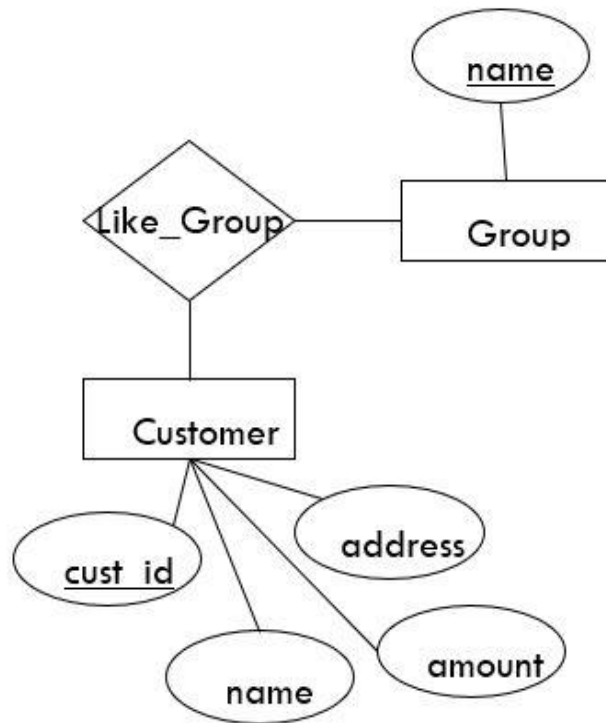
Problem 2

ER Diagram



Solution to problem 2

ER Diagram database for group:

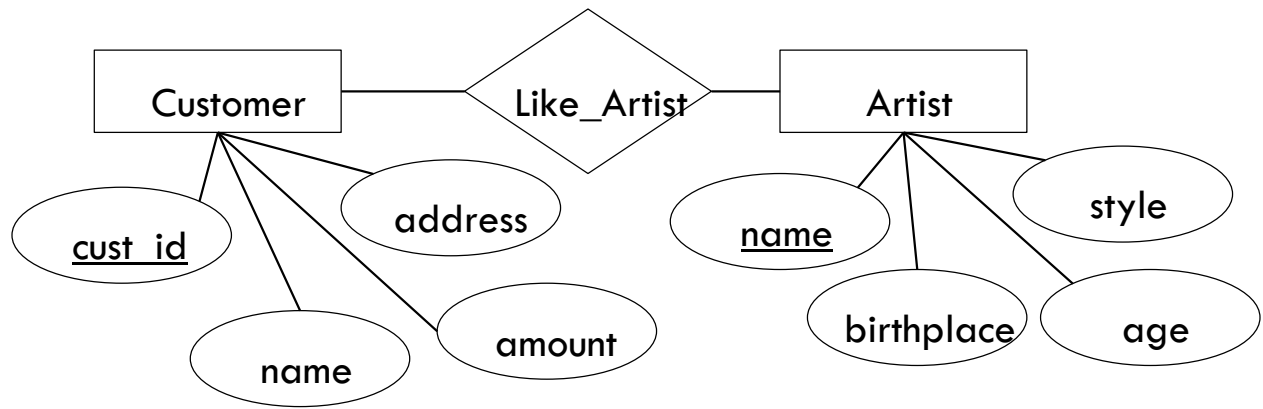


```

CREATE TABLE Like_Group (
    name CHAR(20), cust_name CHAR(20),
    PRIMARY KEY (name, cust_name),
    FOREIGN KEY (name)
    REFERENCES Group, FOREIGN KEY (cust_name)
    REFERENCES Customer)
  
```

Solution

ER Diagram database for Artist:

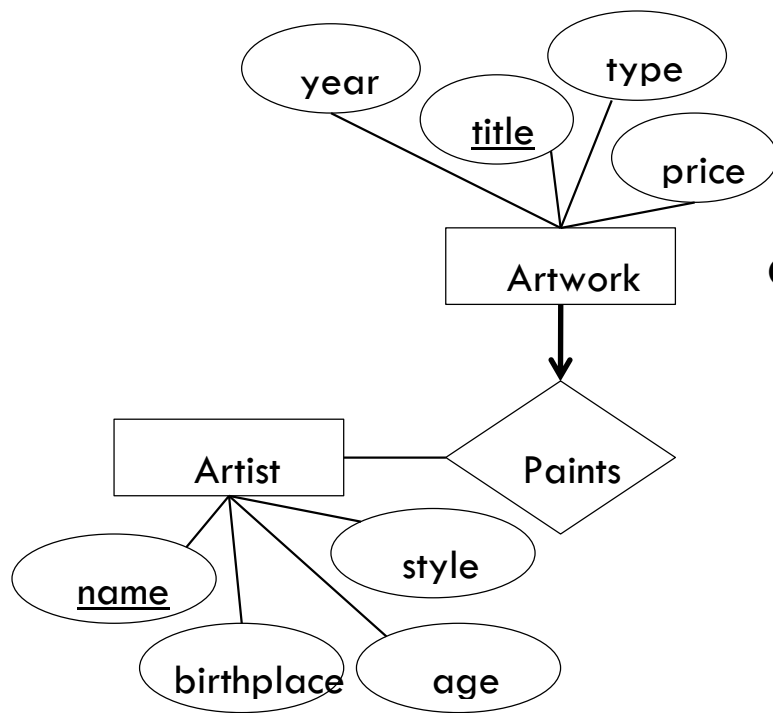


```

CREATE TABLE Like
Artist ( name CHAR
(20), cust name
CHAR(20),
PRIMARY KEY (name, cust name),
FOREIGN KEY (name) REFERENCES Artist,
FOREIGN KEY (cust name) REFERENCES Customer)
  
```

ER Diagram database for Artwork paints:

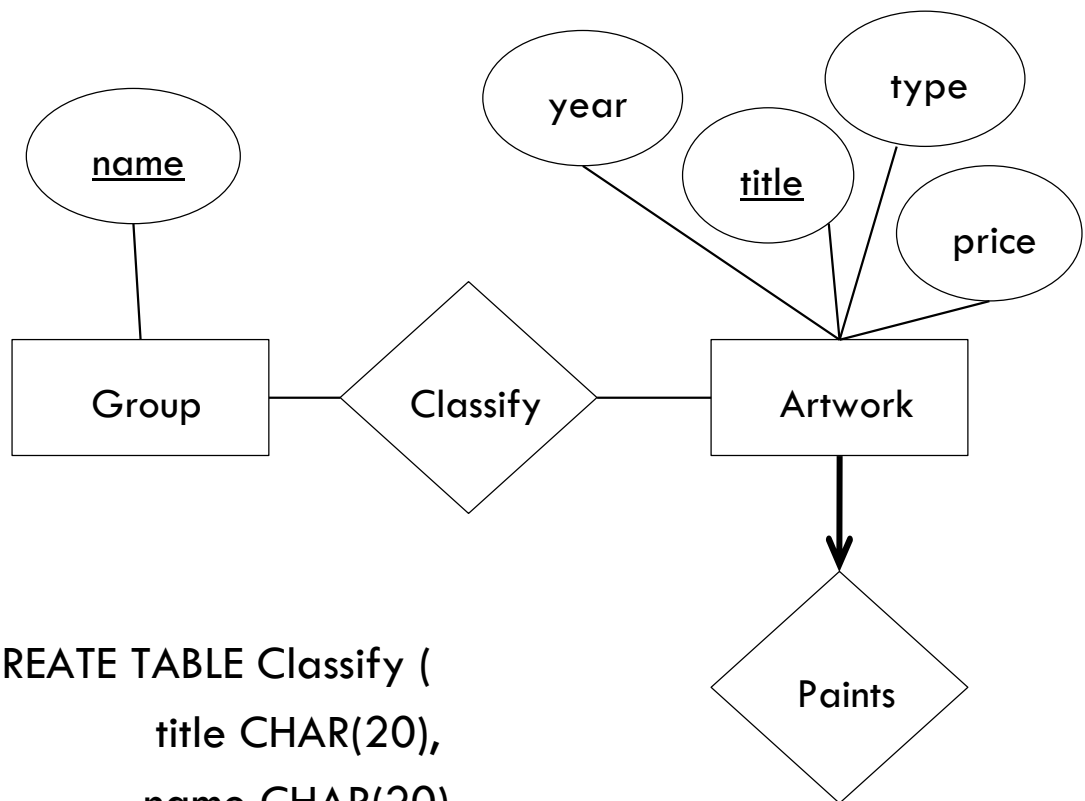
Solution



```
CREATE TABLE Artwork Paints(
  title CHAR(20),
  artist name CHAR(20),
  type CHAR(20),
  price INTEGER,
  year INTEGER,
  PRIMARY KEY (title),
  FOREIGN KEY (artist name)
    REFERENCES Artist)
```

ER diagram database for the classify

Solution



```
CREATE TABLE Classify (  
    title CHAR(20),  
    name CHAR(20),
```