

QWERY(COMPANY)

```

CREATE TABLE Employee (
    ssn CHAR(9) PRIMARY KEY,
    salary REAL,
    phone VARCHAR(15)
);

CREATE TABLE Department (
    dno INTEGER PRIMARY KEY,
    dname VARCHAR(50),
    budget REAL,
    manager_ssn CHAR(9),
    FOREIGN KEY (manager_ssn) REFERENCES Employee(ssn)
);

CREATE TABLE WorksIn (
    ssn CHAR(9),
    dno INTEGER,
    PRIMARY KEY (ssn),
    FOREIGN KEY (ssn) REFERENCES Employee(ssn),
    FOREIGN KEY (dno) REFERENCES Department(dno)
);

CREATE TABLE Child (
    name VARCHAR(50),
    age INTEGER,
    parent_ssn CHAR(9),
    PRIMARY KEY (parent_ssn, name),
    FOREIGN KEY (parent_ssn) REFERENCES Employee(ssn) ON DELETE CASCADE
);

CREATE TABLE Emp (
    eid INT PRIMARY KEY,
    ename VARCHAR(100),
    age INT,
    salary DECIMAL(10, 2)
);

CREATE TABLE Dept (
    did INT PRIMARY KEY,
    dname VARCHAR(100),
    budget DECIMAL(12, 2),
    managerid INT,
    FOREIGN KEY (managerid) REFERENCES Emp(eid)
);

CREATE TABLE Works (
    eid INT,
    did INT,
    pcttime INT,
    PRIMARY KEY (eid, did),
    FOREIGN KEY (eid) REFERENCES Emp(eid),
    FOREIGN KEY (did) REFERENCES Dept(did)
);

```

a) Add DON as an employee with eid = 101, age = 22, salary = 75,000

```
INSERT INTO Emp (eid, ename, age, salary)
VALUES (101, 'DON', 22, 75000.00);
```

b) Give every employee a 10 percent raise

```
UPDATE Emp
SET salary = salary * 1.10;
```

c) Delete the Toy department

```
DELETE FROM Dept
WHERE dname = 'Toy';
```

Problem) A company database needs to store information about employees (identified by ssn, with salary and phone as attributes), departments (identified by dno, with dname and budget as attributes), and children of employees (with name and age as attributes). Employees work in departments; an employee manages each department; 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.

Draw an ER diagram that captures this information.

Write SQL statements to create the corresponding relations and capture as many of the constraints as possible. Answer each of the following questions briefly. The questions are based on the following relational schema:

Emp(eid: integer, ename: string, age: integer, salary: real)

Works(eid: integer, did: integer, pcttime: integer)

Dept(did: integer, dname: string, budget: real, managerid: integer)

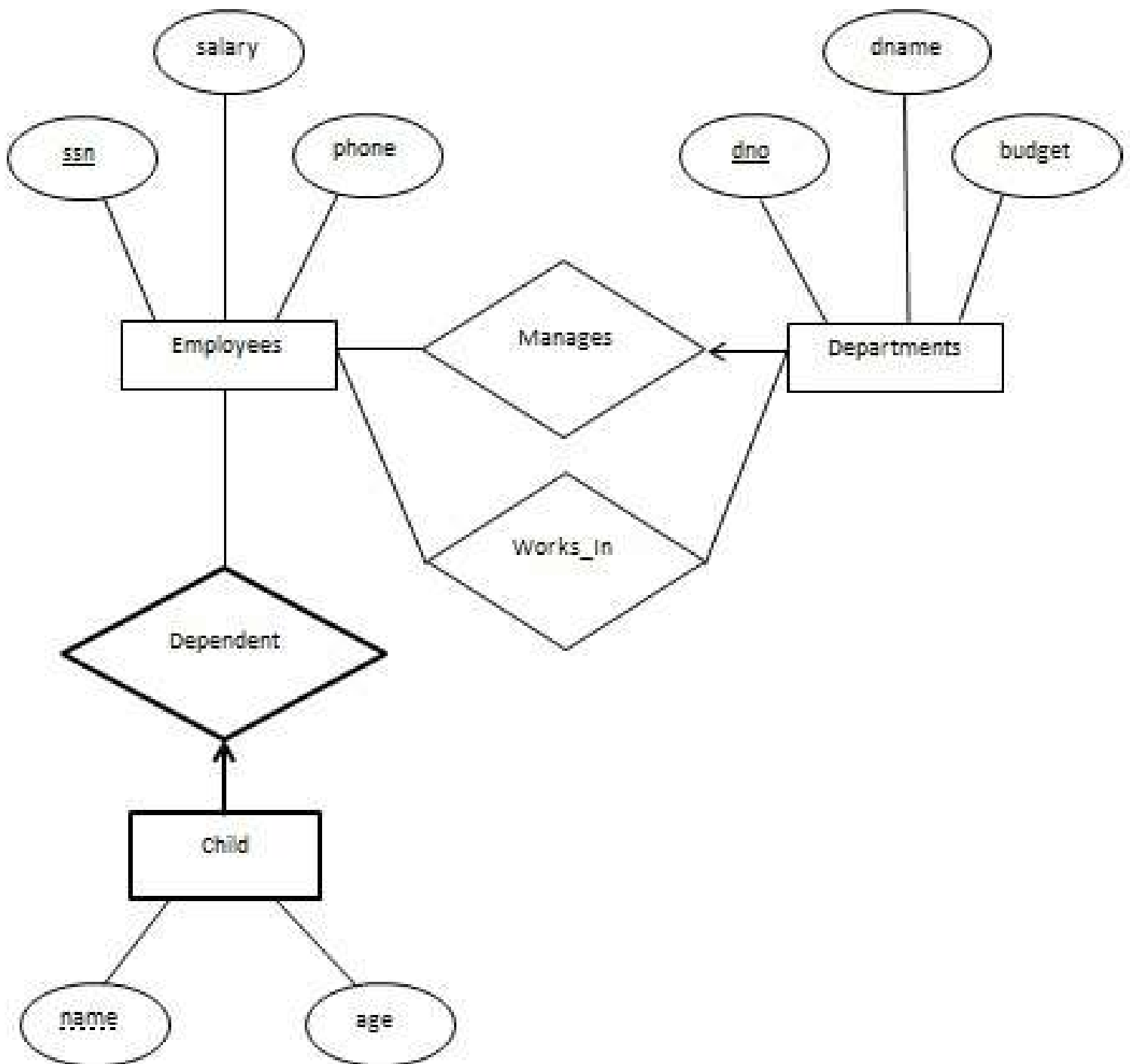
a)

Write an SQL statement to add DON as an employee with eid = 101, age = 22 and salary = 75,000.

b) Write an SQL statement to give every employee a 10 percent raise.

c) Write an SQL statement to delete the Toy department. Given the referential integrity

ER DIAGRAM



← ↻ localhost/phpmyadmin/index.php?route=/database/sql&db=company

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Show query box

✓ MySQL returned an empty result set (i.e. zero rows). (Query took 0.0066 seconds.)

```
CREATE TABLE Employee ( ssn CHAR(9) PRIMARY KEY, salary REAL, phone VARCHAR(15) );
```

[Edit inline] [Edit] [Create PHP code]

✓ MySQL returned an empty result set (i.e. zero rows). (Query took 0.0008 seconds.)

```
CREATE TABLE Department ( dno INTEGER PRIMARY KEY, dname VARCHAR(50), budget REAL, manager_ssn CHAR(9), FOREIGN KEY (manager_ssn) REFERENCES Employee(ssn) );
```

[Edit inline] [Edit] [Create PHP code]

✓ MySQL returned an empty result set (i.e. zero rows). (Query took 0.0007 seconds.)

```
CREATE TABLE WorksIn ( ssn CHAR(9), dno INTEGER, PRIMARY KEY (ssn), FOREIGN KEY (ssn) REFERENCES Employee(ssn), FOREIGN KEY (dno) REFERENCES Department(dno) );
```

[Edit inline] [Edit] [Create PHP code]

✓ MySQL returned an empty result set (i.e. zero rows). (Query took 0.0005 seconds.)

```
CREATE TABLE Child ( name VARCHAR(50), age INTEGER, parent_ssn CHAR(9), PRIMARY KEY (parent_ssn, name), FOREIGN KEY (parent_ssn) REFERENCES Employee(ssn) ON DELETE CASCADE );
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[Edit inline] [Edit] [Create PHP code]

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Show query box

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CREATE TABLE Emp (eid INT PRIMARY KEY, ename VARCHAR(100), age INT, salary DECIMAL(10, 2));

[Edit inline][Edit][Create PHP code]

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CREATE TABLE Dept (did INT PRIMARY KEY, dname VARCHAR(100), budget DECIMAL(12, 2), managerid INT, FOREIGN KEY (managerid) REFERENCES Emp(eid));

[Edit inline][Edit][Create PHP code]

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CREATE TABLE Works (eid INT, did INT, pcttime INT, PRIMARY KEY (eid, did), FOREIGN KEY (eid) REFERENCES Emp(eid), FOREIGN KEY (did) REFERENCES Dept(did));

[Edit inline][Edit][Create PHP code]

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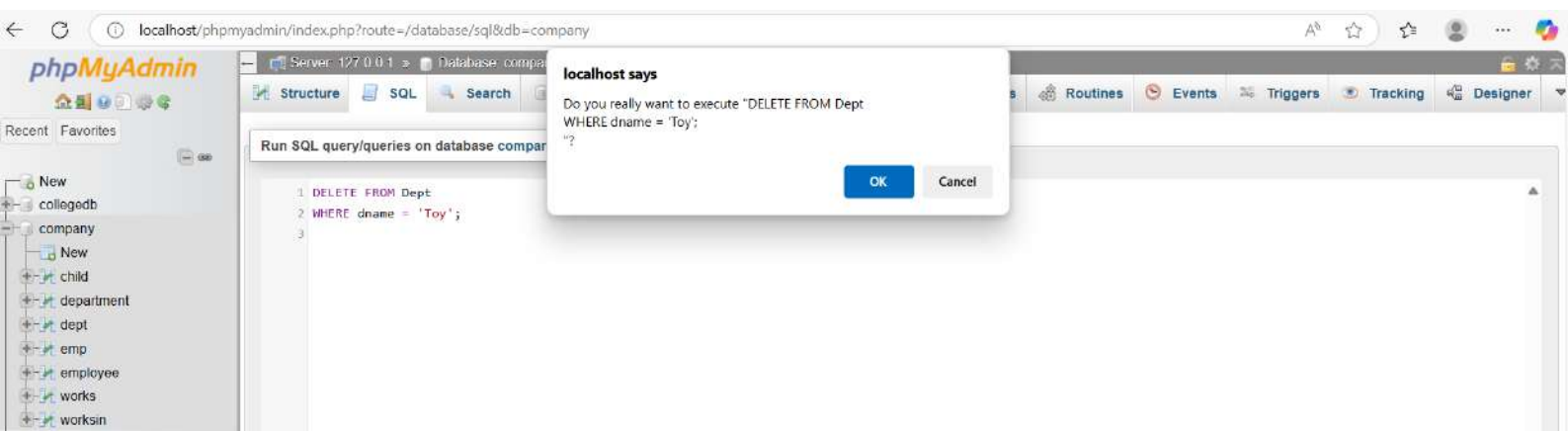
Containing the word

Table	Action	Rows	Type	Collation	Size	Overhead
<input type="checkbox"/> child		0	InnoDB	utf8mb4_general_ci	16.0 KiB	-
<input type="checkbox"/> department		0	InnoDB	utf8mb4_general_ci	32.0 KiB	-
<input type="checkbox"/> dept		0	InnoDB	utf8mb4_general_ci	32.0 KiB	-
<input type="checkbox"/> emp		1	InnoDB	utf8mb4_general_ci	16.0 KiB	-
<input type="checkbox"/> employee		0	InnoDB	utf8mb4_general_ci	16.0 KiB	-
<input type="checkbox"/> works		0	InnoDB	utf8mb4_general_ci	32.0 KiB	-
<input type="checkbox"/> worksin		0	InnoDB	utf8mb4_general_ci	32.0 KiB	-
7 tables	Sum	1	InnoDB	utf8mb4_general_ci	176.0 KiB	0 B

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```

[Edit inline] [Edit] [Create PHP code]

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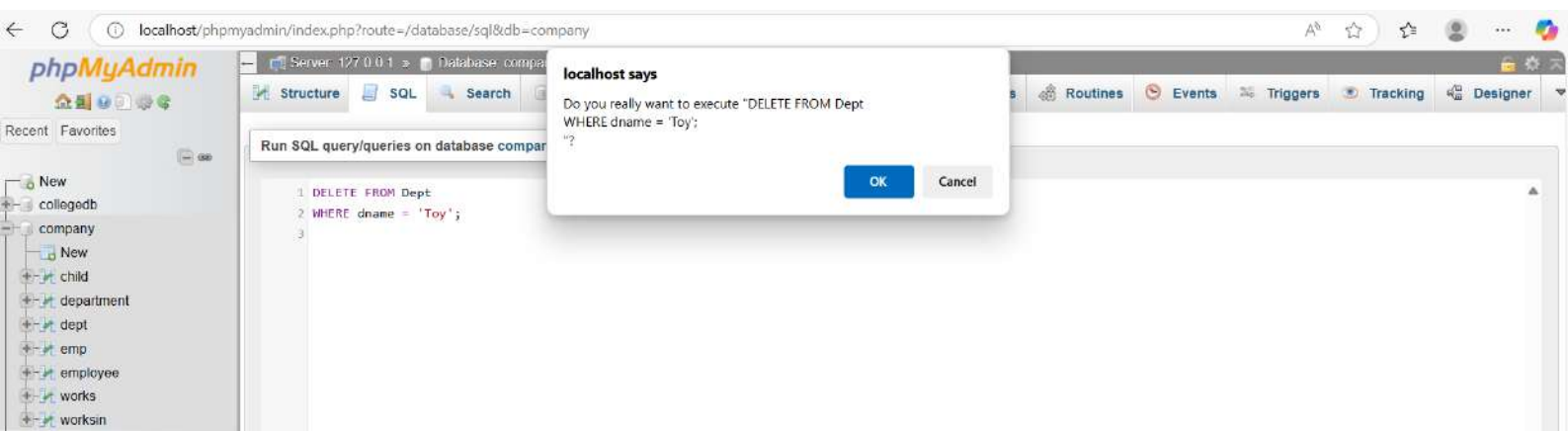
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<input type="checkbox"/> employee		0	InnoDB	utf8mb4_general_ci	16.0 KiB	-
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